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This collection features blog posts I wrote for CBT Nuggets, an IT training provider serving global enterprise and individual learners. As a technical content writer, I combined keyword research with hands-on how-to writing to help readers solve real-world IT problems. The goal: capture organic search demand and guide learners toward the right training content while building trust through clear, useful tutorials.

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Open Source Skills for the Microsoft Master

May 23, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



Until recently, the words "[Microsoft](#)" and "[open source](#)" were rarely used in the same sentence, unless it was a critical remark or a complaint. And, to be sure, the tech giant was not especially known for its openness, community commitment, or other open source software development principles, at least not when compared to other organizations.

But over the past several years, things have changed. GitHub data suggests that Microsoft is the biggest corporate contributor to open source. If you're a Microsoft master, you may be a bit flummoxed by this new "Microsoft gone open source" philosophy. Here's a rundown of the open source skills you need to keep up with the new Microsoft way.

DevOps

[DevOps skills](#), bridging that perfect balance of software development and operations, are highly sought-after in the market at large these days, and it's no exception in the new Microsoft world. As a growing number of applications contain both Linux and Microsoft components, you'll need to understand

common [DevOps](#) practices to support heterogeneous environments. Brush up on your [Azure](#) training and ensure you know how to develop, implement, monitor, and troubleshoot resilient and scalable solutions on the platform.

System Administration

Microsoft has made open source options for its admins much more available and flexible in recent years. With open source tools available for everything from security to performance analysis, you should become familiar with what's available on [Microsoft's open source](#) repository for admins. Understanding the [basics of open source](#) will help ensure that you choose the best tools for your system. In addition, sysadmins who are skilled in cloud computing, network security, and configuration management are in high demand in businesses that rely on open source solutions.

Storage

Even in heavily Microsoft-based environments, storage solutions are becoming more and more distributed and heterogeneous in order to align with today's workplace preferences and requirements. Open source storage solutions are increasingly mainstream as multiple users in multiple locations need to access data. So it's no surprise that you'll need distributed open source storage skills to keep up.

Docker

If you're a Microsoft virtualization master, it's time to embrace [Docker](#). The major open source application engine that leverages [containers for automated application deployment](#), Docker integrates with Microsoft Azure with more and more capabilities. Docker can be used natively on [Windows 10](#) with Hyper-V Containers and has been integrated into [Windows Server](#) since 2014.

Linux

[Linux](#)-based solutions are proliferating in today's cloud-powered environments, and even Microsoft has embraced the new normal. In recent years, Microsoft joined the Linux foundation and developed Azure Cloud Switch, its own cross-platform Linux-based system. There's even a new Microsoft certification for [Linux on Azure](#). [Ubuntu](#) is on [Windows 10](#), and SQL Server 2017 is on Windows, Linux, and Docker containers! So, if you've avoided Linux so far, the de facto open source OS with a storied background, now is the time to change your tune — Microsoft has.

Cloud Infrastructure

At first glance, open source platforms like OpenStack and CloudStack may seem to compete with Microsoft Azure, or at least be mutually exclusive. But with many organizations embracing heterogeneous environments and the hybrid cloud model, open source cloud infrastructure skills increase in demand. Your Linux skills will fit right in.

All the skills on this list are related and complementary; such is the nature of the open source, cloud-first world that Microsoft has hurtled itself into.

Open source solutions make organizational and financial sense for many companies today. In the same way, open source skills are valuable for your job performance and career development. Whether you increase your DevOps open source competency or learn more about Docker, you're adding more to your well-rounded skillset in a world where Microsoft and open source are no longer mutually exclusive.

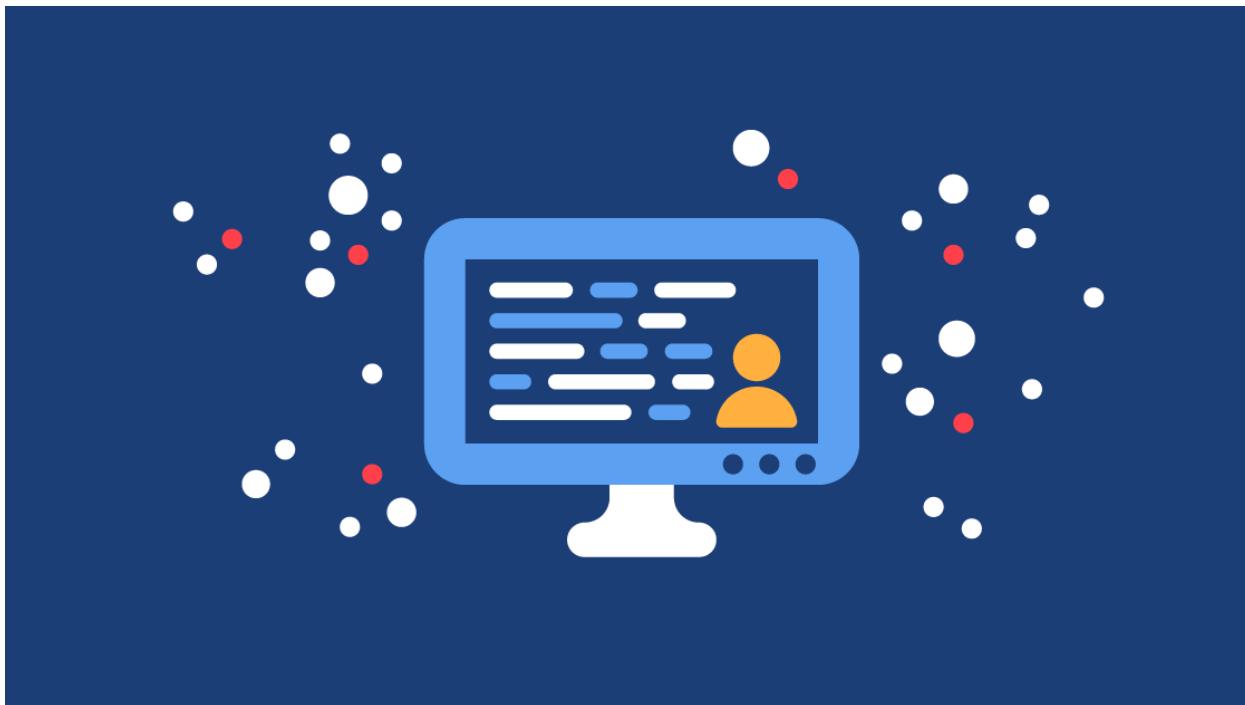
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Strong to Stellar: 3 Ways To Strengthen a SysAdmin Resume

July 12, 2017 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



Preparing the perfect resume can be challenging for everyone, from recent college grads to seasoned IT professionals. Part of the problem is there's a debate on the best way to format a resume, and even what to include.

The best resumes are specific, clear, and customized to the role you're seeking. In the IT world, there's seemingly a lot of overlap within job titles, and job descriptions can be vague. So how do you create a resume that cuts through the noise? We offer three ways to create a SysAdmin resume that stands out.

1. Highlight Your Most Relevant Qualifications

Recruiters and hiring managers are often reviewing your resume to see how closely your IT skills match the job description. Don't be afraid to tailor [your resume for each role](#), using some of the same keywords found in the description. Highlight your qualifications that are most relevant to the role.

Some resumes, maybe even yours right now, kick off with an objective statement like this:

Objective: To use my skills to obtain a Senior Systems Administrator position at XYZ Company.

Instead of including an objective statement, consider leading off with your most relevant skills and qualifications. After all, submitting your resume already signifies that your objective is to work in a particular role at that particular company.

One way to do this is to write a summary. This provides anyone viewing your resume with a snapshot of what you bring to the table, which is helpful when they're going through dozens or even hundreds of resumes from your fellow applicants.

You may do this in a couple sentences or a short paragraph:

CompTIA+ Certified Systems Administrator with 5+ years of experience in Windows Server installation, configuration, and management. Expertise in...

Or with bullet points:

- *5+ years of Windows Server installation, configuration, and management*
- *CompTIA+ certified*
- *Expertise in PowerShell, Docker, and Azure...*

And so on.

Keep in mind that a summary is one of those components of a resume that not everyone agrees on. But it can be essential if you're a recent grad, switching careers, or have anything on your resume that needs a bit of explanation because you can use the summary to keep the focus on your relevant skills.

However, if you have a straightforward career path, you may decide to save space and use the listings in your career history to highlight your most important skills and accomplishments.

Bottom line: A summary can be a useful way to start your resume, and it's really only useful if it's specific and targeted to an individual position.

2. Show Off Your Technical Skills

Whether or not you use a summary to introduce your resume, you should [show off your technical skills](#), early and often. Avoiding buzzwords as much as possible and list the software, operating systems, servers, and other technologies.

What's the best format for listing your technical skills? That can vary, but a good rule of thumb is to avoid listing the skill as part of a responsibility (e.g. Managed X with Y), but as an accomplishment that garnered results (e.g. Managed X with Y, in order to achieve Z). Frame the technical skill in the context of the impact it had on your role or organization.

For example:

- *Monitored event logs on servers, routers, and other network equipment, using Splunk and other tools, proactively addressing issues as they arose*
- *Led planning and rollout of new mobile phone system for 250 users, including daily management and usage audit, increasing overall personnel productivity*

As you can see, these bullet points show not just what you can do, but how and why it's important.

3. List Your Certifications

Don't forget to highlight any certifications you've earned on your resume. You may have included these in your introductory summary if you wrote one, but [it's a good idea to list them in a separate section](#) to ensure nothing is overlooked.

Depending on how relevant they are, include your certs either before or after your work history. For example, if your only cert is a PMP, but you're going for a sysadmin role that doesn't include any project management, include at the bottom, following your relevant work history. If your certs are especially relevant to the roles you're seeking, list the certs at the top.

And don't hesitate to include additional training courses you have under your belt, like the [CBT Nuggets courses](#) you've completed!

4. Bonus Tip: Include Your Soft Skills

You know that you're good at things like troubleshooting while maintaining the utmost patience and professionalism, but how do you include that on a resume? Simply listing those types of soft skills may feel a bit artificial, so include them in a more subtle way.

The solution is to [weave your soft skills](#) in with your other accomplishments. This may not be possible for each and every bullet point, but when possible, include the soft skill that you used.

For even better results, use the soft skills required in the job listing (e.g. self-starter, effective communicator, collaborative). For example:

- *Independently developed and initiated cybersecurity training for all new employees, reducing overall number of incidents*
- *Implemented ZenDesk ticketing system, ran employee survey to measure user satisfaction with IT, and adjusted system based on responses in order to foster collaboration between IT and other departments*

Creating an effective, attention-grabbing resume takes thought and effort, but it doesn't have to be painful. Ensure that you highlight your most relevant qualifications, show off your technical skills and your certs, and weave in your soft skills where you can. You're on your way to a stellar Sysadmin resume.

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First Steps for Your IT Job Search

October 4, 2016 | [Everything CBTN IT Careers](#) - By Team Nuggets



The IT job market is full of open positions and qualified applicants. It's tough to find the right opportunity and stand out among the competition, but these tips will help you maximize your time and get you closer to that elusive offer letter.

Take time to prepare for your IT job search.

First thing first: make sure your [resume](#) is up-to-date, accurate, and accomplishment-focused. Don't forget to include your group affiliations, awards, and [certifications](#). Remove any out-of-date skills and positions that aren't relevant to what you're shooting for in your next role. If applicable, update your profiles on StackOverflow and CodeProject, and update your personal website.

Take some time for self-reflection. This is your opportunity to reflect on what you value in a job, what you're passionate about, and what kind of work gives you a sense of satisfaction. Do you want to pursue a business management path in IT, or gain a deeper technical specialization?

Know where to look for IT jobs.

In this competitive market, taking a far-reaching approach to job searching will serve you well. Try smart, specific searches on job sites and networks like [LinkedIn](#), [Indeed](#), and [CareerBuilder](#). Use filters to get closer to what you want.

Industry-specific sites can be helpful. [Dice.com](#) is geared specifically for job hunters looking for careers in programming and IT, while [icrunchdata](#) has a big data and analytics focus. [TechCareers](#) lists thousands of tech and engineering jobs, while [AngelList](#) is great if you're seeking a job at a startup.

Opinions vary about using recruiting firms to secure a job, but professional recruiters can be great for help getting your foot in the door, as well as in finding roles and securing interviews.

Be smart about scheduling and organization.

As you begin applying for jobs, the details can quickly get overwhelming if you don't stay organized.

Be sure to track:

- Where and when you applied;
- A link to the job description;
- Any contacts or referrals you have within the company;
- When and how you plan to follow up; and
- Any other notes.

Use a calendar to keep track of calls, interviews, and to create reminders to yourself to follow up.

Also, use a consistent file naming strategy for your resumes and cover letters. You should be creating a new version of each, targeted to the specific company, so your files will quickly proliferate. Make sure to include your name in the file and in the file name!

Make personal connections to stand out.

Employers and interviewers love referrals and “warm contacts.” [Career experts](#) say that you should spend the majority of your job search doing the hard work of networking and making personal connections, more so than actually applying for jobs.

[LinkedIn](#) can help you make personal connections that get your application to the top of the proverbial stack. If you have the name of the job poster, you can look up that individual's profile and send a personal note expressing your interest in the role.

You can also view your second and third degree LinkedIn connections at the company, and reach out to ask some questions or even for an informational interview. These conversations can sometimes even lead to referrals.

Research and rehearse for the interview.

Once you've gotten an invitation to interview, take some time to learn more about the organization and, if possible, your interviewers. You'll need to be prepared to answer any question like, "tell us what you know about the company."

Interviews can be challenging for even the most well-spoken extroverts. Like everything else in the job search, preparation is key. Be ready to show your expertise in answering technical questions, but keep in mind that the interview is an opportunity for the employer to evaluate your soft skills too. Search for [common IT interview questions](#) and practice your responses. Be as specific as possible.

Make sure you have some questions to ask, as well. If you don't come with questions of your own, you may look disinterested or unprepared. Asking questions helps you evaluate whether or not the job is a good fit for you too. Consider asking questions like, "how would you describe company culture?" Or, "what kind of skills do you need to be successful in this role?"

Job hunting isn't always fun, but it doesn't have to be miserable. With the right preparation, a savvy search, and a human touch, you'll be well on your way to securing your next great role.

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A Closer Look at the Revamped Security+ Exam

October 23, 2017 | [Cert News Everything CBTN](#) - By [Team Nuggets](#)



A new Security+ exam is on the horizon — in just two days, to be exact. CompTIA announced the expected revamp to the exam associated with its vendor-neutral, globally popular IT security certification, the Security+.

If you are an IT newbie, there has never been a better time to start picking up the basics. With the new exam pending, the Security+ is a great place to begin building your [IT security career](#). In this post, we take a look at what's new with the exam and why the Security+ is such a valuable certification.

Overview of the CompTIA Security+ Certification

The CompTIA Security+ certification has long been a stepping stone to a flourishing IT career. Because security is at the cornerstone of all things IT, the Security+ cert is valuable, even for those who pursue a specialized path beside security.

Like other CompTIA certifications, the Security+ is vendor-neutral, so it applies well to a range of organizations regardless of which technology is in place. In terms of subject matter, the certification “[covers network security](#), compliance and operation security, threats and vulnerabilities as well as application, data and host security. Also included are access control, identity management, and cryptography.”

The Security+ cert is considered entry-level, but it's helpful to have a couple years of day-to-day experience under your belt, along with some general security knowledge, before tackling the exam. Depending on your goals and experience, you may decide to start with the [A+ or Network+ certifications](#) before starting in on the Security+.

Typically, CompTIA releases new exams associated with its certifications every three years. Because the last version, the [SY0-401](#), was released in May 2014, we expected a new version in 2017, and sure enough, it's just about here!

What to Expect with SY0-501

The Security+ certification will continue to be focused on foundation-level security, compliance, threats, and vulnerabilities, which means that the spirit of the Security+ exam won't change. But cybersecurity has advanced, and new threats have emerged since 2014.

So what exam changes should we expect?

Comparing the new 501's [objectives](#) to the 401, there are some additions and subtractions. The dedicated Network Security section was removed, but that doesn't mean that the topic is completely gone. Objectives such as installing and configuring network components, implementing secure network architecture concepts, and other network security-related topics are still found throughout the exam.

In the new exam, you'll still be expected to demonstrate the implementation of secure protocols. However, a section addressing ports is no longer included. While the new exam removes some detailed sections like this, it also expands some areas such as cryptography. For example, test takers will now be required to explain cryptography algorithms such as cipher modes, something not found in the SY0-401.

The SY0-401 will not be retired until July 2018, so if you've done all your studying for that version, you still have a grace period in which to take the exam. But if you're just getting started, studying for and passing the SY0-501 is your best bet.

New Security+ Exam: The Details

While some details may continue to evolve right up until launch date, we have some information about the exam for you to use as you plan your training and study.

Launch Date: October 25, 2017

Price: \$320 USD

Number of questions: Maximum of 90

Types of questions: Multiple choice and performance-based

Length of test: 90 minutes

Passing score: 750 (on a scale of 100-900)

Prerequisites: None, but CompTIA recommends at least two years of experience in IT administration, focused on security

Exam Objectives (Domains):

- Threats, Attacks, and Vulnerabilities 21%
- Technologies and Tools 22%
- Architecture and Design 15%
- Identity and Access Management 16%
- Risk Management 14%
- Cryptography and PKI 12%

Exam retirement: TBD (usually three years after launch)

With the new changes to the exam, earning your CompTIA Security+ certification ensures that you have the most up-to-date knowledge and skills required to secure networks, deter risks and threats, and effectively contribute to the overall security of an organization.

As with any new exam, the best study tips and guides will hit the market soon after the official launch. Stay tuned to CBT Nuggets for resources, study plans, and more. In the meantime, trainer Keith Barker is ready to help you train for the new exam!

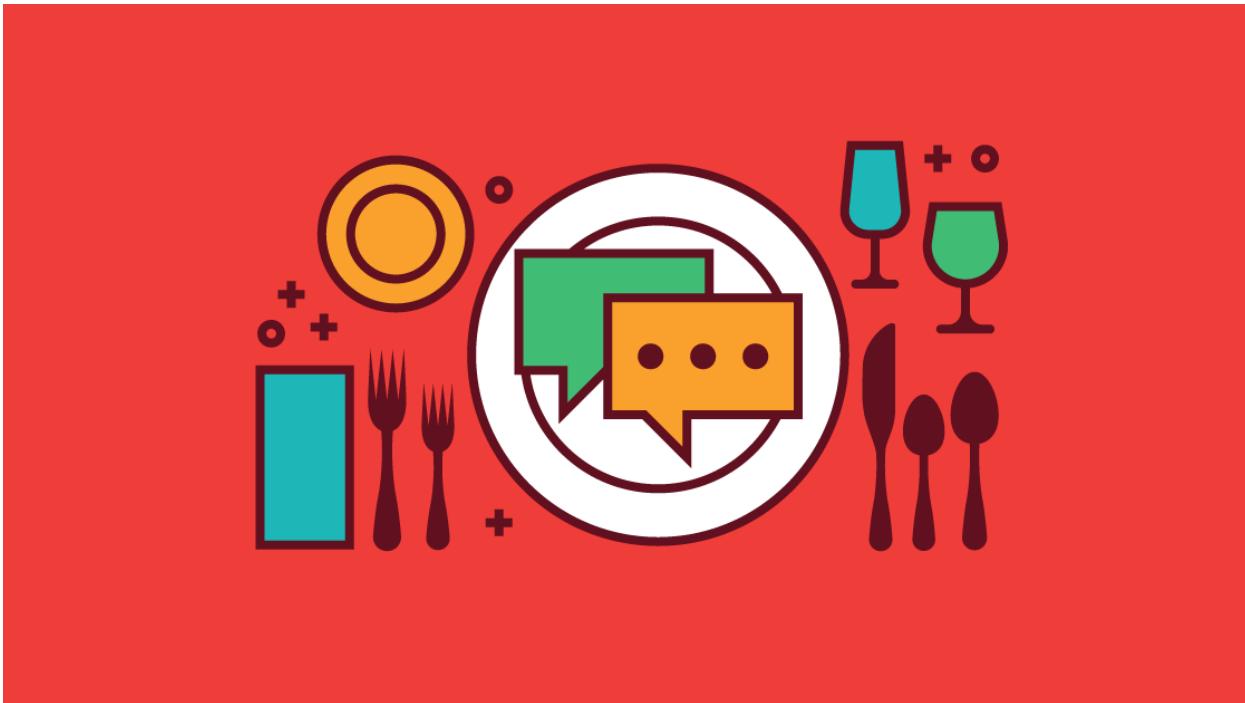
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8 Essentials of Professional Chat Etiquette

July 27, 2017 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



Were you just chatting with someone whose desk you can see from yours? Don't be embarrassed. In the modern workplace, that's life. But work is still work, and it does require maintaining professionalism whether you're on Slack, HipChat, Yammer, or whatever your organization uses.

As office dynamics evolve, and [the remote workforce grows](#), chat platforms like these become an indispensable part of communication. So now more than ever, it's important to be up to speed on your professional chat etiquette.

Here are eight essential recommendations to ensure that you don't end up miscommunicating, offending, or worse.

1. Never write anything you wouldn't say aloud.

If you're in IT, you should already be aware that your privacy isn't guaranteed on chat. It's easy to send a message to the wrong person by mistake, misread the privacy settings of a group, or even misinterpret a

quick note. Remember that work chat is not the same as texting on your personal cell phone or talking at happy hour. So keep it professional.

A good rule: Don't say anything you wouldn't want your boss to read over your shoulder.

2. Remember the human behind the chat.

This is especially important if you're providing customer service, live chatting about a help desk ticket, or otherwise interacting in a service capacity. Part of being professional is being respectful and friendly. [Don't abandon basic manners](#) like greeting your recipient, saying please and thank you, and so on. If you're chatting with someone for the first time, introduce yourself rather than immediately making a request.

3. Be mindful of other people's communication preferences.

Chat is great when you need answers fast. But your message [may be disruptive](#) for the person on the receiving end, as many chat clients default to sound and visual alerts. If you need a more thoughtful response, or if you know that your recipient actually prefers a different mode of communication, try sending an email, picking up the phone, or setting up an in-person meeting instead.

4. Be prompt with replies.

When someone IMs you, they are probably expecting a quick reply, whether it's your buddy wanting to go to lunch, [your boss asking about training](#), or your co-worker needing help with a technical question. If you can't respond immediately, change your status so others know you're not available, or request that they get in touch a different way.

5. Don't get distracted or be distracting.

It's all too easy to let chat become a distraction, especially if your team has set up a bunch of non-work-related Slack channels or Yammer topics. While taking a break to watch a funny video or two can help your productivity throughout the day, you should resist the temptation to linger in off-topic conversations. Chat should be a tool to help you get more done, not a distraction that takes away from your work.

And don't forget to shut down chat functions when you're in a [dedicated study space](#). It's too easy to get sucked away from training time with a quick chat.

6. Be mindful of spelling, formatting, and other mechanics.

Sure, it's probably fine to abandon capitalization in your IMs, and emoticons can be a fun component of your chats — depending on your workplace, of course. But just because it's a different mode of communication doesn't mean you can abandon all [standards of grammar](#), such as complete sentences, spelling, and so on. This is especially important if you're chatting with customers or end users. And please, learn how to add line breaks to your chats (often Ctrl + Enter). No one wants to read a giant wall of text.

7. End your chat appropriately.

If you're on a live support chat, you probably have a protocol to follow: Thanking the customer, ensuring their issue has been resolved, and so on. But everyone deserves to know when a conversation has come to a close. Don't abandon your chats without at least a "thanks" and letting your recipient know you've moved on to your next task.

8. Establish best practices.

If you're in IT, you likely have a role in the selection, configuration, and ongoing maintenance of [your company's chat software](#). Depending on your role, you may even be in a position to establish standards that encourage participation and proper use of chat, but also set boundaries. Even if you're not in a position of leadership, set a good example with your use of chat.

Work chat can be fun, productive, frustrating, and everything in between. With a little attention paid to these etiquette essentials, you can make the most of the platform without sacrificing professionalism or risking miscommunication.

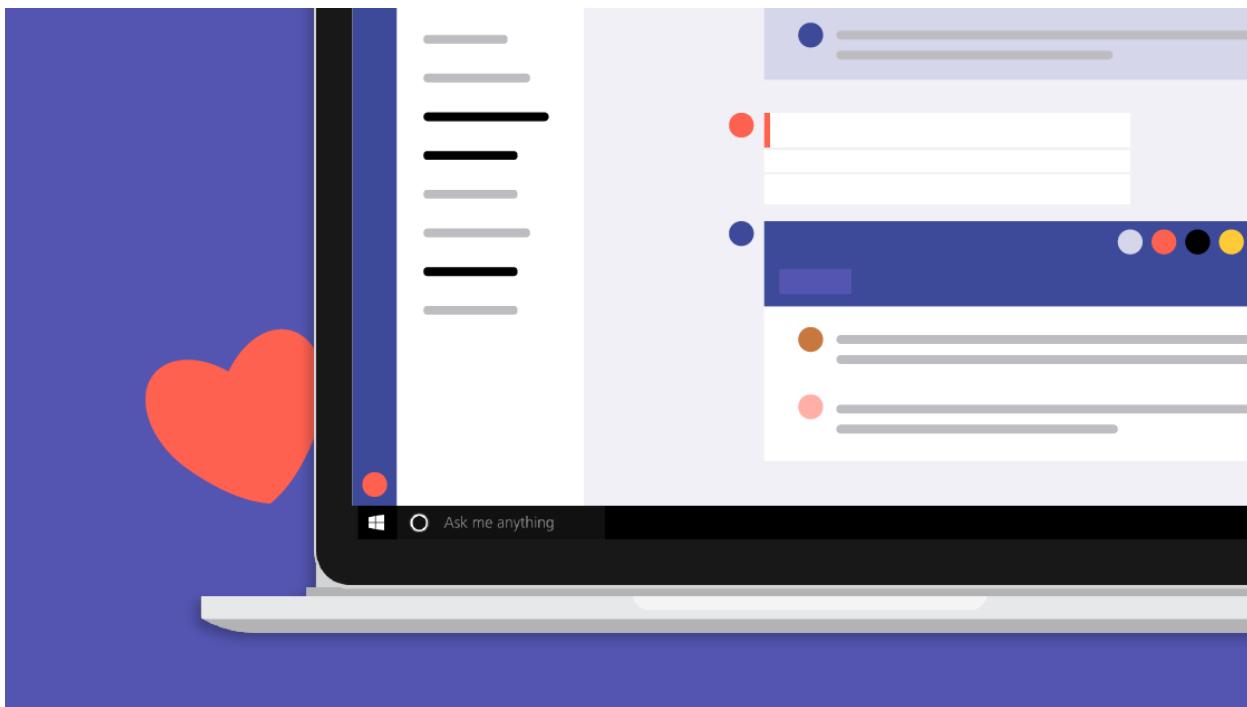
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6 Reasons to Love Microsoft Teams and Office 365

August 30, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



Real-time collaboration is a game changer, making your team more effective, efficient, and, well, collaborative. [Microsoft Teams](#) brings a new level of collaboration to [Office 365](#) users in the workplace, especially for remote employees.

We explore six reasons to love the integration of Teams with Office 365 — and what it all means for you as a SysAdmin.

1. Teams boosts collaboration and productivity.

It goes without saying that any real-time collaboration tool should make teamwork easier and productivity rise. But not all tools are created equal. Buggy or cumbersome chat clients, missing features, and limited integrations have all been obstacles for past tools.

[Microsoft Teams](#), in contrast, is a well-designed solution built especially to boost collaboration and productivity in businesses using Office 365. Microsoft calls Teams “a digital translation of an open office

space.” Whether users are in the same room or at sites across the globe, Teams offers a space not just for chat communication, but even more collaboration, integrating files and other applications — all in a structured and cohesive way. Productivity levels: rising.

2. Teams integrates seamlessly with Office 365.

Microsoft Teams is built on top of Office 365 (specifically, Office 365 Groups), so it is easy to activate at the tenant level once you have the appropriate licensing in place. When you create teams, you’re also creating a fully functional Group that includes an associated [SharePoint](#) site, mailbox, and OneNote notebook. Teams is integrated with Exchange and Skype, so emails and calls can be made from within Teams itself. The Files tab in every team uses SharePoint for storage, and more tabs can be added to include collaborative spaces like shared [Excel](#) notebooks, [Word](#) documents, calendars, and more.

Essentially, once a user is in Teams, they can take advantage of the full range of Office 365 functionality without ever leaving.

3. Teams connects seamlessly with third-party tools.

Other collaboration tools like Slack are known for integration with third-party applications, and Microsoft hasn’t skimped (or slacked!) in this area either. If you use Zendesk for customer service, Asana for project management, HootSuite for social media management, or any of more than 150 external applications, Teams can incorporate app functionality.

Team owners can easily enable or disable these third-party apps, plugins, and services. You can also [build your own](#). Which brings us to...

4. Teams incorporates helpful bots and other useful features.

Users have come to expect bots and automation features from their real-time chat and collaboration tools. Bots can deliver notifications, act as a command-line interface, or use the natural language processing capability of the Microsoft Bot Framework to allow users to chat directly with them. Starting with T-Bot, which lets you query for information about Teams itself, other popular bots include Statsbots for reports and data from outside sources and Polly for polling users.

Beyond bots, Teams includes a plethora of useful features such as custom alerts, inline replies, and multi-language support.

5. Teams is easy to administer.

As mentioned previously, Teams is activated at the tenant level, and it's not difficult to manage from the Office 365 admin center. For now, [PowerShell](#) can be used to assign and remove user licenses. The Teams admin can create and manage teams and control which users in your organization can do the same. Admin capabilities include expected functions such as enabling or disabling external apps, choosing integrated cloud storage providers, controlling the availability of media content, and more.

Overall, the admin experience with Microsoft Teams has matured to be on par with the rest of Office 365, making it easy for you to meet business needs and expectations.

6. Microsoft Teams is secure.

Because Office 365 is at the foundation of Teams, security is already baked in at the core. Teams is Tier C compliant, including standards like SOC 1 and 2, ISO 27001, HIPAA and EU Model Clauses. (Learn more about Tier C [here](#).) According to [Microsoft](#), Teams “enforces team-wide and organization-wide two-factor authentication, single sign-on through Active Directory, and encryption of data in transit and at rest. Files are stored in SharePoint and are backed by SharePoint encryption. Notes are stored in OneNote and are backed by OneNote encryption.” Teams offers two-factor authentication and SSO via Active Directory or SAML and supports mobile data protection via Intune.

So there you have it: Six big reasons why Microsoft Teams has risen to the [top of the workplace collaboration field](#). We expect to see Teams continue to get better and better, adding more functionality, integration, and admin control. If your organization already uses Office 365, you'll love what Teams has to offer. If not, these reasons may push you to consider the switch to a Microsoft working environment.

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5 Volunteer Organizations That Need Your IT Expertise Today

August 1, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



Giving back to your community doesn't mean you're limited to donating a percentage of your paycheck or serving meals at a soup kitchen. Those things are great, of course, but if you'd like to volunteer your time and actual expertise, there are plenty of opportunities to use your IT capabilities within your own community and around the world.

Not surprisingly, nonprofits are a good place to start. There are many organizations in need of free, experienced, and high-quality IT services. Let's take a look at five types of organizations that'll likely say "YES!" to your services in the blink of an eye.

1. Schools and Educational Nonprofits

Large, well-funded school districts often have their IT needs covered by in-house staff. But smaller or struggling districts and other educational nonprofits can use your help with everything from [setting up networks](#) to [mentoring kids](#) in an effort to help close the education gap in computer science and engineering.

Perhaps your local high school has an [after-school coding club](#) you can volunteer with or the local office of a nearby educational nonprofit needs someone to [build a database](#). Through these types of opportunities, you can make a difference on an organizational level, and also you may be able to bond with kids and families in need, which can be rewarding for everyone involved.

2. Social Activist Organizations

If you have a passion for politics or the pressing social issues of today, look into social activist organizations for [IT-centric volunteering opportunities](#). Whether it's a small grassroots group or a national organization, your skills will come in handy as much – if not even more so – than donating money or voting.

There may be a need for hands-on work like [setting up a new office](#), or you could contribute business value and strategy by working with organization leadership. And if your volunteer work is connected to a cause you really care about, it will be even more satisfying.

3. Law Enforcement Agencies

Whether you're an [entry-level or experienced IT pro](#), your local law enforcement agencies can use your help if you have a background in forensics and cybercrime. Keep in mind, you likely won't be able to do hands-on forensic work as a volunteer, due to legal restrictions, especially in the U.S.

But you may be able to find an opportunity as a guest trainer or expert consultant on matters of [online security and safety](#). As an added bonus, this type of volunteering can be great for developing professional contacts and adding experience to your resume, all while helping to keep your community safe.

4. Local Nonprofits and Smaller Charity Organizations

If you're not sure where to start with volunteering, think locally. When members of your own community are in need, where do they go for help? It's likely that those charities need volunteers to assist with IT and tech areas of their organization.

The local animal shelter needs a [website update](#), the assisted living facility needs someone to [rebuild donated PCs](#), the community theater needs help troubleshooting some [network issue](#) — those types of needs abound, and your efforts can make a big difference.

5. Government-sponsored Service Programs

Perhaps you're ready to dedicate your time and skills in an even bigger way. That's where government-sponsored service programs like Peace Corps, Americorps, and Senior Corps come into play.

With programs like these, you may be donating a large portion of your time, even years of your life, but you will have the opportunity to enact huge change. These types of organizations are always looking for enthusiastic volunteers with IT skills. You may be setting up IT infrastructure in a rural area, or providing technical education to help a community make effective use of the equipment they have.

Whether you have two hours on a Sunday afternoon or a two-year sabbatical to volunteer, there are opportunities that match your preferences and abilities to needs in your community and around the globe.

Volunteering is a great way to [expand your network](#) and grow your skill set, and it's also personally fulfilling. But even more importantly, it means you can use IT work to make the world a better place.

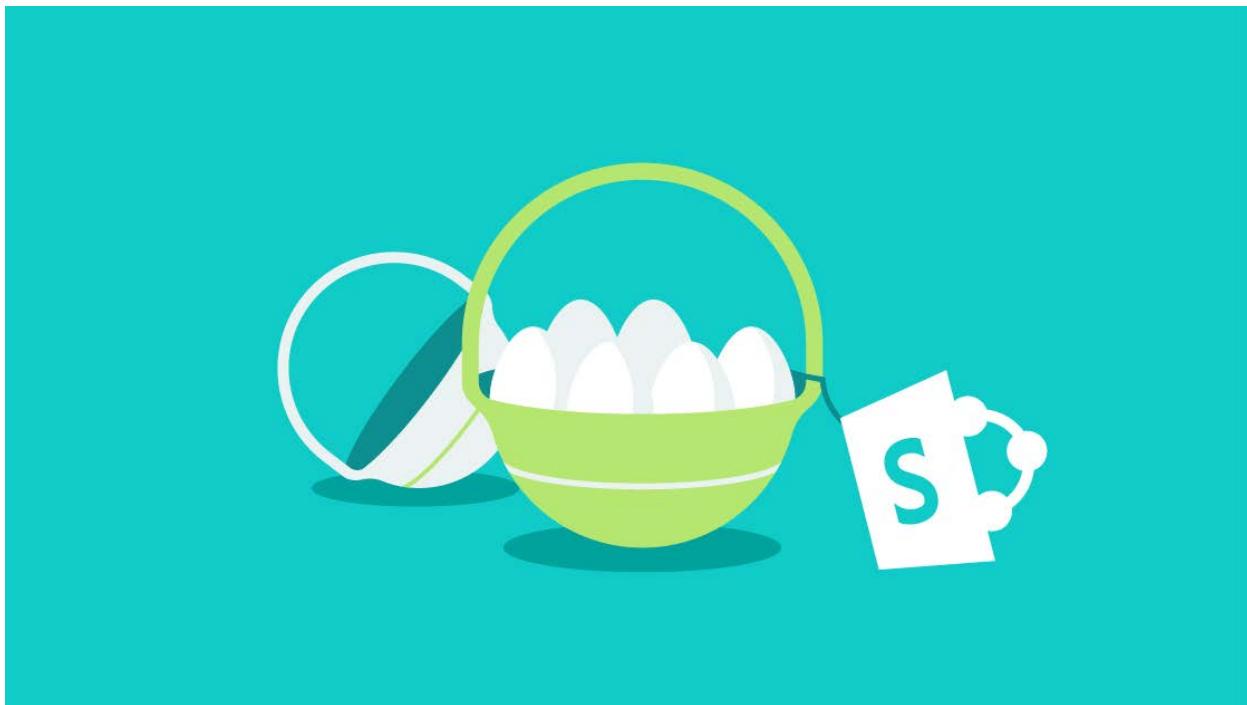
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5 Reasons Not to Build a Career on Microsoft SharePoint

April 26, 2017 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



[Microsoft](#) SharePoint has proven itself to be much more than a fad, but that doesn't necessarily mean you should put all your eggs in the SharePoint basket. In some organizations, SharePoint is ubiquitous and inescapable, but it's still just one technology in a sea of tools for workplace collaboration and efficiency.

Let's take a look at five reasons why [SharePoint](#) isn't the most miraculous technology, leading us to conclude that you shouldn't limit your skills to Sharepoint alone and build your entire career around it.

1. SharePoint technology is complex and sprawling.

Complexity alone isn't a great reason to avoid advancing your knowledge around a certain technology. After all, some organizations and projects require tools that can accommodate a great deal of complexity. However, SharePoint can be needlessly complex in implementation, to the point of being convoluted. Installation has heavy-duty requirements and is prone to errors. Updates are time-consuming. And its integration with other Microsoft systems means that if you have a SharePoint problem, it can affect many other components in the workplace. If you're a SharePoint expert, some of these complexities may not seem

problematic, but if you're considering whether to pursue more SharePoint training, consider the downside of working with an often-difficult technology.

2. SharePoint doesn't play well with other platforms.

While Microsoft [has made an effort](#) to bring SharePoint into its cloud-first, mobile-first strategy, it's not quite there, yet, especially when compared to other tools in the [Office suite](#). If your organization isn't on [Office 365](#) — and many still aren't — recent enhancements that allow for mobile use and integration with other platforms may be unavailable or simply broken. Users and administrators alike report frustrations when trying to use SharePoint with anything other than [Windows](#), IE, and PC-based office applications. In increasingly SaaS-based workplaces, SharePoint may be a dead end, due to its limited integrations with other cloud-based tools.

3. SharePoint doesn't play well with external collaborators.

When you hear that SharePoint is an enterprise-grade solution, you might think that it lends itself well to large-scale collaboration, a requirement for many users in an increasingly global and interconnected business environment. Plenty of projects require collaboration and sharing across organizations, in scenarios involving business partnerships, sales activities, consulting relationships, and so on. But SharePoint's [external sharing capability](#) is anything but friendly, especially when compared to similar functionality in other cloud-based platforms like G Suite. And linking from any outside system of record to content in SharePoint can get messy quickly. This is a big roadblock for many businesses and constitutes a barrier to SharePoint adoption, or at least a reason why many users may circumvent SharePoint for alternatives.

4. SharePoint doesn't have a great reputation with users.

"Going around" SharePoint for alternatives is a common practice among frustrated users — and there's no shortage of them in SharePoint environments. Some of the most common complaints have to do with finding and maintaining up-to-date content: search functionality stinks, version control is confusing, and metadata is difficult to use consistently. Microsoft has made efforts to solve this with products like [Delve](#), and SharePoint experts can certainly address some of these problems in their businesses with training and advocacy, but the issue isn't going away anytime soon. You don't go into IT to win a popularity contest, of course, but do you want to invest your career in a technology that users tend not to like?

5. SharePoint is an enterprise-grade platform solution.

As mentioned earlier, SharePoint is complex. Its complexity means it can support complicated enterprise-grade initiatives, from content management to business intelligence and beyond. What SharePoint *isn't* is a great out-of-the-box solution for smaller-scale projects such as an employee portal and wiki for your SMB. If you're more interested in roles like IT manager at a small shop than consulting for billion-dollar conglomerates, building a career based on SharePoint probably isn't for you.

For all its potential, SharePoint can sometimes be frustrating. If you work in an organization that uses SharePoint, or you have your sights set on working for a large enterprise where SharePoint makes sense to use as a solution, then, by all means, brush up on your skills with SharePoint training. But for most IT pros, deep SharePoint expertise isn't the most practical base for building a career.

Whatever career development path you choose, SharePoint or otherwise, go into it with your eyes wide open, fully understanding the pros and cons of the technologies and career opportunities (or lack thereof). [The more you know...](#)

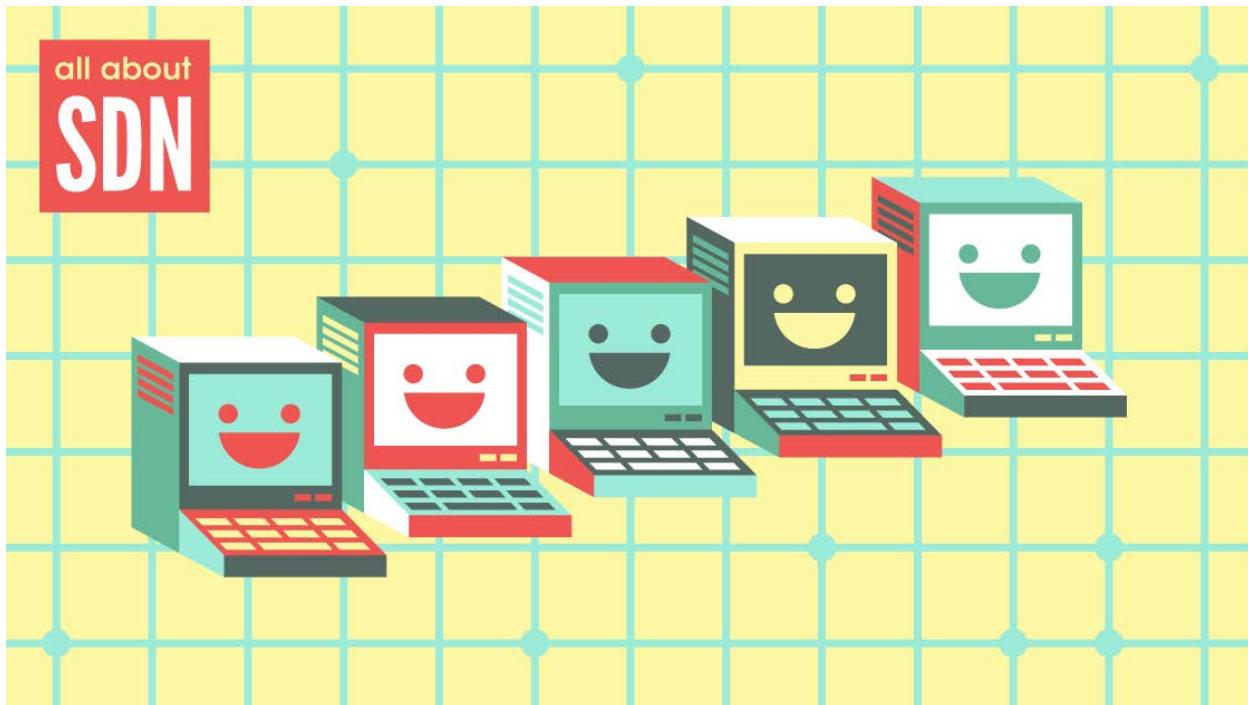
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5 Jobs You Can Get with SDN

May 18, 2017 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



Software-defined networking is having its moment in the sun, as we see it surge in popularity and infiltrate enterprises and service network providers. As with many technology trends, this surge leads to a variety of career-related questions for IT pros. The switch to software-defined networking (SDN) can leave admins considering whether or not their career is in jeopardy.

As older network technologies are phased out or revamped in favor of SDNs, the primary task of the IT department is to understand how the broad reach of SDN affects the entire organization. The responsibility of the individual IT pro is to understand how SDN affects his or her career. Similar to other significant changes in technology, embracing SDN requires you to trust software to do the heavy lifting — and understand that SDN [doesn't mean you'll be replaced](#) (neither by a programmer nor by a program), but actually can make what you do easier. The goal of SDN in any organization should be to improve the way networks are managed and configured.

Let's explore some SDN-related jobs that you can start thinking about today that will showcase your understanding and let you carve out a path during the upswing of this popular technology. Some of them are probably already familiar to you.

Network Administrator / Network Engineer

Networks based on SDNs still need administrators and engineers. If you're on this [career path](#) already, you should add SDN to your existing broad set of skills, such as SDN controllers, protocols like OpenFlow, and more. New training and certification paths like [CCNA Cloud](#) are emerging that will help. Once you have those skills under your belt, the next challenge with this path lies with embracing change and determining the best way to incorporate SDN technology into your organization's existing network — or finding a new role that already incorporates SDN.

Storage Administrator

The storage admin role is another position that will be revolutionized rather than replaced by SDN. As [storage solutions evolve](#) and leverage SDN, you can make decisions about data while it's in transit, ultimately offering more control. While some older processes used by storage admins and storage engineers don't necessarily scale to today's world, there is still a need for managing service catalogs, capacity, and performance.

QA / Test Engineer

Much like the role of the [network administrator/engineer](#), the role of a test engineer can evolve to include SDN. In this role, you may plan, coordinate, or test the application of SDNs, including traditional responsibilities like writing test cases and analyzing test results. By expanding your familiarity with [virtualization](#), [cloud](#), and [programming](#) skills, you'll be on track for a QA role that incorporates SDN.

Software Engineer

While we don't believe that you must [become a programmer](#) or a software engineer to work with SDN, this is certainly an option. With this path, you can write code for controller apps, switches, and the like, as well as develop and maintain networking stacks. If you're not a software engineer, yet, and you'd like to build on your programming skills with the goal of using them in the future for a role in SDN, begin by learning more deeply about APIs and controllers like APIC-EM.

SDN Engineer

As evidenced by the job title, this is the holy grail of SDN roles. Depending on the organization, an SDN engineer may be a mashup of some, or all, of the roles listed above. Your responsibilities will be aligned with the core goals of software-defined networking itself: managing infrastructure so that it is as dynamic, scalable, reliable, and high-performing as possible.

There you have it: five jobs you can get with SDN. You may even already have one of these jobs! Rest assured that it won't disappear from the market completely with the advent of SDN; you may simply have to update your skills and evolve with the role to incorporate new technologies.

Like any other emerging technology, SDN creates new challenges as well as new opportunities. Keep an eye out for new [certifications that help keep you up-to-date](#). The networking world is constantly shifting. Shift with it, and you will reap the career rewards.

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5 IT Certs that Will Increase Your Salary

May 29, 2017 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



Technology evolves constantly. If you're an ambitious IT professional, you should seek to constantly expand your experience, your skills, and your certifications, right along with evolving technology, in order to develop your career.

The good news is that you also can often reap financial rewards during this process. If you're looking to boost your salary while you develop your skills, take a look at these five in-demand certs.

Citrix Certified Professional – Virtualization (CCP-V)

[Citrix](#) certifications are generally very popular across the industry, and the financial component keeps up with salaries ranging from [\\$99,411 to \\$105,086](#). The popularity makes sense because organizations are increasing their investment in [cloud-based infrastructure](#) with solutions like those Citrix provides, and IT pros who are [virtualization](#) experts are in high demand to help companies keep pace with the change.

The CCP-V certification sits at the top of the salary range for Citrix certs, focusing on Citrix's flagship XenDesktop application and delivery platform. To earn your CCP-V, you will first need to conquer the CCA-V cert.

Certified Information Security Manager (CISM)

The first of two on this list of certs provided by the ISACA, the [CISM](#) is a [vendor-neutral](#) certification that focuses on enterprise-level security management. This cert is great for IT pros who already work in [network security](#) and are ready to level up in their careers. Preparing for this exam, you'll hone your expertise in strategizing the development and management of information security programs at organizations.

To get certified, not only do you have to pass the exam, you also must have five years of work experience in the field of infosec, with three years as a manager. If you meet the requirements, you can look forward to a [salary topping \\$122,500 per year](#).

AWS Certified Solutions Architect – Associate

[AWS](#) certifications target IT pros who design and manage applications on AWS; expertise in this market-leading cloud technology will take you far. The [Certified Solutions Architect – Associate](#) is one of the [highest-paying certs](#) around, easily topping \$100,000 in salary. [It demonstrates that you have mastery over AWS best practices](#), and further, can design distributed applications and systems on AWS.

You'll need experience designing hybrid components (on-premises plus AWS), expertise with one programming language, and more. Once you acquire the cert, you'll join a relatively small pool of certificate holders, which gives you a competitive edge — especially in salary negotiations.

Project Management Professional (PMP®)

One of the classic IT certs, the [PMP®](#) is widely held but also flexible, internationally recognized, and applicable to all kinds of industries, and garners a [well-paying salary across roles](#). To pass the exam, you'll need to demonstrate mastery in [five areas of project execution](#): initiating, planning, executing, monitoring and controlling, and closing the project. It requires a fair amount of planning and preparation to meet the requirements and pass the exam, but it's arguably the most valuable certification for soft skills that an IT pro can get.

Hot tip: if you're looking to [move up in management](#), combine the PMP® with another certification to boost your salary potential and become even more indispensable to your organization.

Certified Information Systems Auditor (CISA)

If you haven't noticed already, security is a recurring theme on this list. That's because security skills are

some of the [most in-demand right now](#), and it's important to managers that employees back up security knowledge with targeted certifications like [CISA](#), another ISACA certification. If you have experience in infosec auditing, control, and risk management, this cert may be for you.

In addition to passing the exam, you'll have to show five years of experience. Hop [on the path to CISA](#) and look forward to roles with [salaries topping \\$100,000](#) per year.

Whether you're assessing security systems, leading IT projects, or something in between, there's a certification that meets your needs and can propel your career forward. At times it can be difficult to choose which certification path to pursue, so don't shy away from using a salary boost as one of your criteria.

Trends such security and virtualization, as well as major industry players like AWS and Citrix, will continue to produce in-demand certs that can help you rise in the ranks and reap the financial rewards.

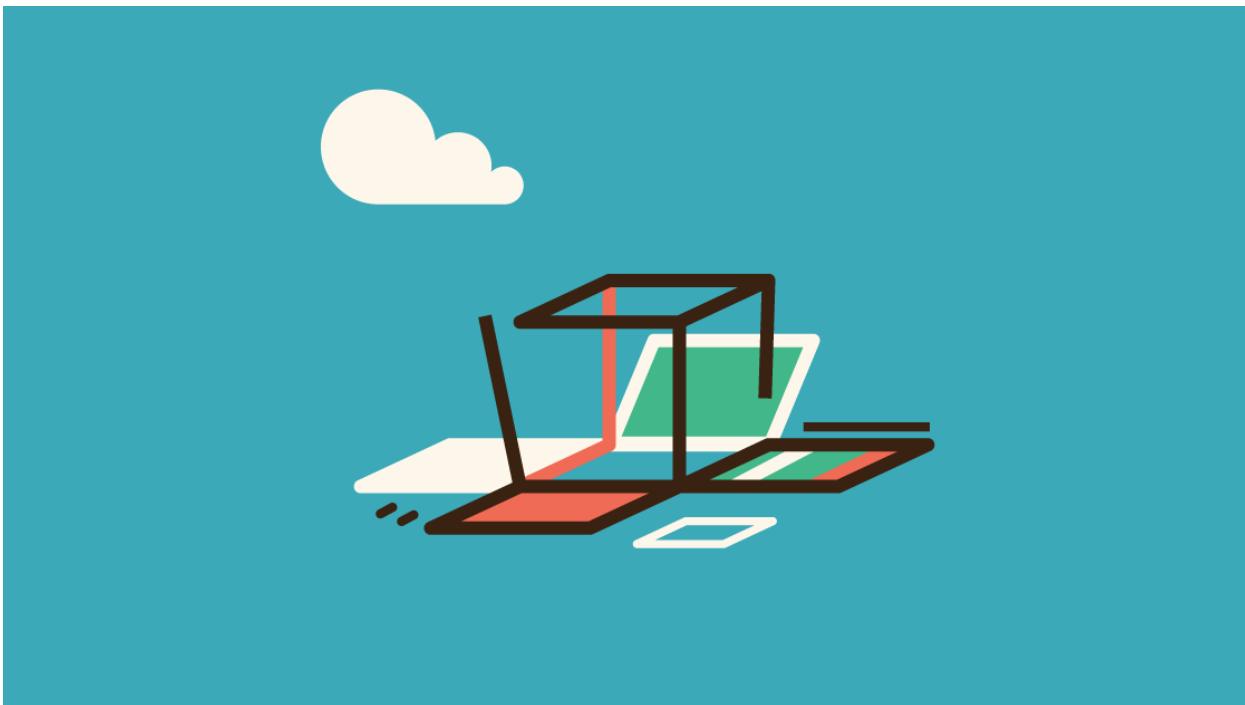
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Your Survival Guide to a Virtualization Failure

April 18, 2017 | [Everything CBTN IT Careers Training Tips](#) - By [Team Nuggets](#)



Virtualization, what would we do without you? The IT industry's switch to virtualized networks has benefited many organizations, saving time, money, and headaches.

There are many [reasons to be thankful for virtualization](#), but like any technology, it's not perfect 100 percent of the time. What if something goes wrong? You and your organization face risks and challenges in a virtualized environment, but with some preparation, you can make the transition and maintenance as smooth as possible.

Choosing the Right Solution

One of the best features of virtualization also can be one of its biggest challenges: Variety. The vast array of virtualization solutions means you can be flexible in finding one that fits your business best, and switching to new vendors and tools easily when needed.

But, particularly if you're new to virtualization or IT in general, the lack of a one-size-fits-all solution can prove daunting. Which components of your environment need to be virtualized? Which vendor should you use? As with most things, start by [educating yourself on virtualization technology](#). Once you're armed with this knowledge, you'll be equipped to choose the solution that best fits your needs, preventing problems down the road.

Training Your Team

Whether you're a team of one or a [team of more](#), one of the most important strategies during your move to a virtualized environment is preparing and training. Forcing a switch to a virtualized network before your team is ready opens you up to a virtualization failure.

It's not enough to say, "These systems are being virtualized on this date, please prepare." If possible, create a core team with members across all departments to oversee the switch. Expect to be involved in key tasks before, during, and after implementation.

Pre-rollout, members of the core team will be involved in the research and selection of vendors, documentation of the current network assets and utilization, and implementation of test systems. Once the team is trained in the new procedures necessary to work in a virtualized environment, they can act as ambassadors to the rest of the company, training their colleagues in turn. During the actual rollout, core team members will be capable of handling a variety of tasks and troubleshooting any issues, ensuring the smoothest changeover possible.

Preparing Security Plans

If you've done your homework and educated yourself on virtualization and choosing the right solution for your organization, you know that there are a lot of security issues surrounding the burgeoning technology.

Some of these security concerns tend to be overblown, as is the case with any trending technology, but there also are real considerations to keep in mind. As many [virtualization pros](#) know, moving to a dynamic, multilayered, complex environment opens you up to new security risks requiring new considerations. Preparing yourself and your environment for these risks is a key part of avoiding a virtualization failure.

Here are some factors to prepare for:

- **Design and deployment.** Create a plan for your new virtualized network infrastructure, including separation of development, test, and production assets. Plan for who has access to what. Consider security protocols for virtual machines just like you would physical servers.

- **Sprawl.** Because you've taken the time to learn and plan, you're likely not creating virtual machines willy-nilly and forgetting them on the network. Even so, it is easy to let your virtual environment sprawl. Establish a change management process that accounts for what is currently being used and what's not, as well as what's needed. Which leads us to...
- **Patching and updates.** As much as you control for sprawl, the ease and flexibility of virtual solutions means that some sprawl will happen. Unfortunately, that also leads to vulnerabilities. Plan for lifecycle management policies and procedures so nothing gets left behind in terms of patching and updates.

These are just a few security considerations for virtualization. Be sure to create a robust plan that fits your organization, because just like virtualization itself, security is not one size fits all.

Managing Solutions Post-Implementation

Congratulations, you made it through implementation successfully!

While we hate to be the bearer of bad news, it's important to know that you're not immune from failure once you've gone through the transition to virtualization. Proper management and administration of your new virtualized networks and assets is complex and may require a more proactive approach than in your previous configuration. Make sure you have enough resources, both in terms of people and technology, to manage your virtualized environment effectively.

Making the switch to virtualization is not a simple process. But it is possible to complete the switch smoothly and effectively, with a little preparation — ensuring you choose the right solution, preparing your core team, and putting security protocols in place early on. Developing proactive management procedures sets you up for ongoing success.

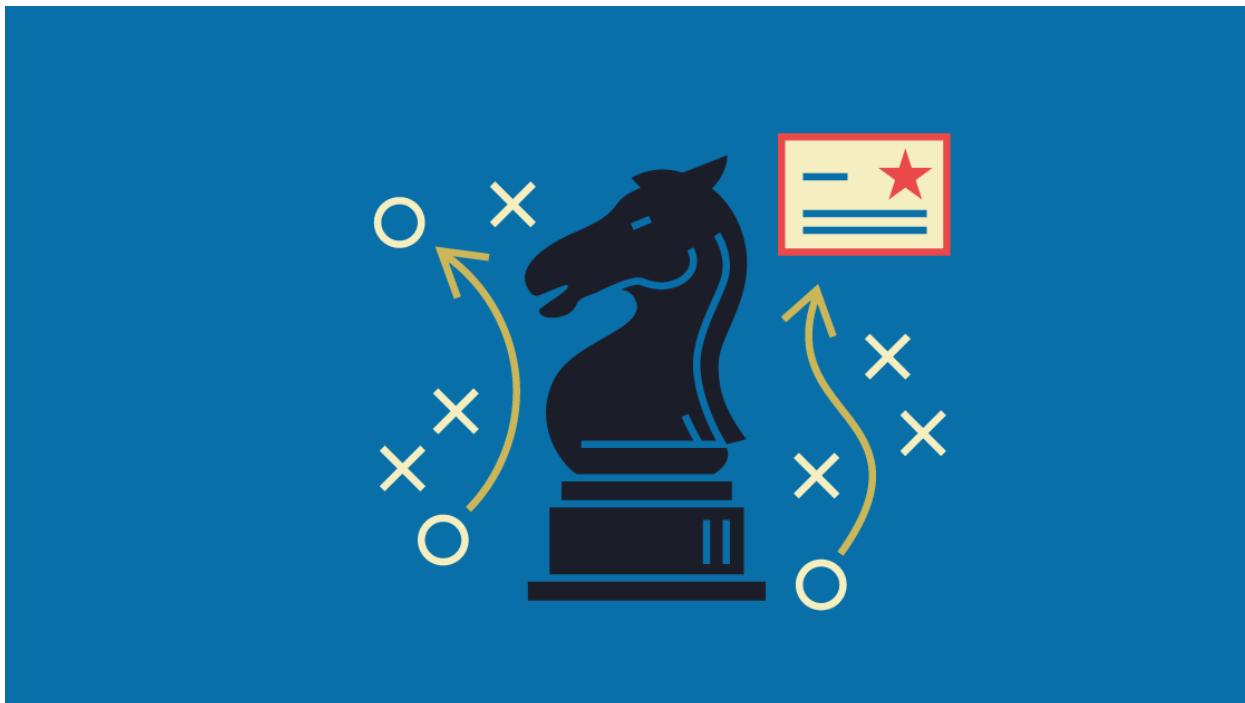
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7 Strategies to Pass Microsoft Retiring Exams

February 21, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



In January, Microsoft announced retirement dates for more than two dozen active exams. In response to this news, you may decide to steer clear of those exams, but what if you're still using the technology or already had plans to earn the associated certification?

Luckily, while Microsoft retires certifications and exams, that doesn't mean that they automatically expire or disappear from your transcript. Once retired, certifications will no longer be able to be earned, but your passed certifications still remain in the Active Microsoft Certifications section of your transcript. Two years after the exam's retirement date, your certification listing will be moved to the Legacy Microsoft Certifications section of your transcript.

So if you're up for the challenge, here are seven key strategies for passing Microsoft's retiring exams.

1. Be realistic.

If you're taking an exam with a retirement date, you already know that there's a limited amount of time you'll have to employ any of these strategies and pass the exams. Be realistic about your foundational knowledge and what you can feasibly do to prepare in time. For example, if you've never worked with Active Directory, is it realistic for you to plan to take Exam 70-640: Windows Server 2008 Active Directory, Configuring? Does it align with your career goals? Do you have time?

If you're not sure, consider talking with a [CBT Nuggets Accountability Coach](#) to get some additional guidance.

2. Register and schedule.

This strategy goes hand-in-hand with the “be realistic” recommendation. Because you'll be taking a retiring exam, it's especially important to register early and create your preparation schedule accordingly. Work backward from the retirement date to ensure that you have time to dedicate to each of the study strategies described below, plus actually taking the exam. Take note of any other commitments or conflicts you have during that time, and make sure you can accommodate them.

Download our [customizable study plan](#) to put your plan on paper and make the kind of commitment that sticks!

3. Take a course.

The best strategy for preparing to take a Microsoft certification exam is to take a preparation course. We offer a number of [Microsoft courses](#) that are video-based, so you can either begin learning about the subject matter or get a refresher on topics you've learned in the past.

4. Work through a book or study guide.

While some of us are visual learners, others may benefit more from the written word. Due to the popularity of Microsoft certifications, many have books and study guides available either for free online or for purchase through retailers.

5. Practice with hands-on experience.

Do you regularly encounter the technologies for the exam you're preparing to take? Fantastic! If you have access to the software, hardware, and tools that your exam covers, be sure to practice in order to get hands-on experience.

If you're not among the lucky few who have easy access to the gear to practice for your exam, use a [virtual lab](#). Practice with the labs provided in your study materials, and create your own scenarios to test your comfort level with the technology. Try designing your own solutions without following the step-by-step instructions from your study materials.

6. Take practice tests.

[Practice exams](#) are great for assessing your readiness for the certification exam. We provide practice exams through Transcender®, the industry leader in certification practice exams, and you can check [this list](#) to see if there is a practice exam available for your certification.

Microsoft also offers practice tests through MeasureUp [here](#) that can be very helpful in both testing your preparedness but also getting to know the mechanics of the exam, such as what types of questions you'll encounter, how they're expected to be answered, and so on.

7. Self-reflect.

We're all different. Some people find test-taking to be no big deal, and can race through an exam after a good night's sleep the night before. Others experience more exam anxiety and need to focus on time management to be successful. Do some self-reflection and be honest with yourself about what you need to prepare.

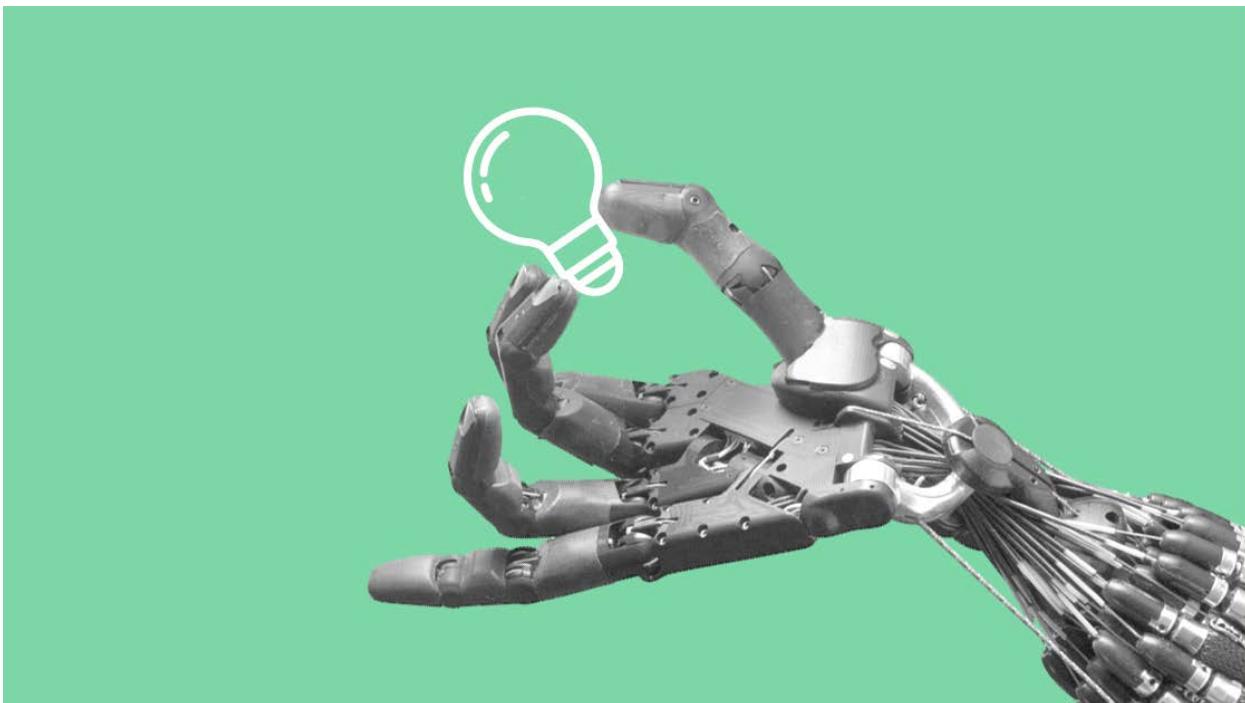
Exams come and go, and it's up to you to determine whether or not it's worth pursuing a given certification exam if it's retiring soon. For the Microsoft exams retiring this year, you know you have a limited window of time during which to employ these strategies and pass your exam. Think of that as an advantage — [no procrastination allowed!](#) Once you earn your certification, you have the distinction of being certified for life.

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7 Programming Jobs You Never Knew Existed

April 12, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



Coding is the future! Sure, you've seen that sentiment in plenty of publications with click-grabbing headlines, but what does it really mean? That software engineering jobs are unlimited, as long as you're willing to be chained to a desk writing code for 10 hours a day?

Not exactly.

Standard software development jobs are more multifaceted than that, and there are many nontraditional jobs out there that incorporate coding skills. The bright future of programming includes flexible workstyles, changing technologies, and many interesting, unexpected roles.

Let's dive in and explore some programming jobs you never knew existed — or at least never associated with the field!

1. Combat Designer

Game designer and programmer roles are some of the most in-demand in the industry, and as the market tends to be oversaturated with hopefuls, that's a good thing. It takes hard work and dedication to stand out and be successful. One of the best ways to make your mark? [Specialize](#).

Combat systems designers work at the intersection of art, design, and programming to ensure that fighting and attack elements of games like *Halo: Reach* and *God of War 3* are well-executed.

In this role, you'll need an understanding of multiple scripting languages like C++, [Java](#), and [Python](#). Also essential: a passion for fighting games. As a designer rather than a strict programmer, this career path could propel you to higher-level roles, like creative director.

2. Race Engineer

If you're an adrenaline junkie with an interest in racing (think NASCAR and Formula One, not marathons or horses), this role may be for you. Race engineers work closely with racecar drivers, monitoring performance via hundreds of data points and providing feedback for those involved in races.

There's no one set path to becoming a race engineer, but many begin as CAE engineers working in vehicle dynamics. Preferred skills often include [Excel](#), VBA, MatLab, and C#. Engineering degrees also are often required.

3. Quantitative Analyst

Want to be a quant? If you have a knack for finance, you can combine it with your coding and math skills in the quantitative analyst field. It's a challenging role that involves designing and implementing statistical models for pricing and trading stocks, either working directly with traders (front office) or in more research- and strategy-driven roles.

Investment banks, hedge funds, and insurance companies employ quants, and the job can garner a high salary. Quants use C++ for their trading systems, as well as [Java](#), R, MatLab, and [Python](#).

4. Meteorologist

Yes, you can turn your programming experience into a career as a weather guy/gal! Of course, pointing at a green screen is hardly a good representation of the coding-heavy meteorology jobs you could pursue if you have a programming background. Meteorology programmers use [Python](#), C++, Fortran, and more to create and work with weather forecasting models as well as conduct research.

Many roles in the field require additional training or education — for example, a Bachelor's degree in meteorology, climatology, or atmospheric science, but experience in coding and development also is necessary for the technical side of meteorology.

5. LEGO Model Designer

For some of us, playing with blocks all day would be living the dream. Doing it on a large scale and getting paid for it? That's the job of a lucky few who landed roles as LEGO model designers. They often start as builders, doing the work of actually putting together the models for LEGOLAND attractions across the globe. Designers create architectural models with proprietary software and tools like Rhino 3D.

If you want to be a LEGO Model Designer, your programming experience will need to be augmented with art, architecture, or 3D modeling. Combine those with your skills in math, problem-solving, and taking a concept from start to finish, and you'll be the perfect fit.

6. Philosopher

Damon Horowitz [states that](#) we need a moral operating system just as much as a mobile operating system. He grapples with these concepts as a PhD holder in philosophy and Google's In-House Philosopher — and he got his start in programming.

Of course, most companies don't have philosophers on staff, but if you're pondering the impact of social media on our society and the nature of artificial intelligence, perhaps additional education in philosophy or another humanities discipline is for you. It can actually give you a career boost, not to mention personal fulfillment.

7. Entrepreneur

Okay, this is a job you certainly knew existed before reading this list, but have you [seriously considered it as a programming job](#)? Because it certainly can be — *or* it can be the role you take on once you've exhausted your career opportunities in programming.

Either way, striking out on your own as an entrepreneur takes guts, and you'll need to use the skills you already have under your belt: analysis, process flow, debugging, and troubleshooting. Whether you launch your own SaaS startup, move to Japan to teach English, or open a pub, you'll be well-served with your experience in programming.

Whether [you're a new](#) coding bootcamp graduate or an advanced degree-holding developer with decades of experience under your belt looking for a change, one of these seven jobs may strike a chord with you. The great thing about programming is that it opens the door to roles you may never have considered before.

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Microsoft Exam Retirements: A Closer Look

February 23, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



When pursuing an IT certification, there are many questions to ask to determine which one is right for you. What technology and products does it cover? How will it benefit my career?

But there's another variable element to IT certifications that should be added to the mix: how long does that certification last? Not just how long you'll be certified — some only cover you for a certain period of time — but also how long the certification itself will be active. As technologies and products evolve, certification retirements can result.

Microsoft's Upcoming Retirements 2017-2018

In 2016, [Microsoft](#) announced changes to some of its certification tracks, including [MCSE](#) and [MCSA](#) Windows 7.

MSCE certifications released prior to September 2016 will be retired on March 31, 2017 and replaced with four new certifications:

- MCSE: Cloud Platform and Infrastructure
- MCSE: Mobility
- MCSE: Data Management and Analytics
- MCSE: Productivity

If you've passed a qualifying MSCE exam since January 1, 2016, you will be granted the corresponding MSCE certification for 2016, with no additional exams required.

While the Windows 7 MCSA certification was retired in the fall of 2015, certain exams were kept available in order to allow IT pros to continue to earn Specialist certifications. Exams 70-680, 70-686, and 70-694 will be retired on July 31, 2018.

One of the most significant changes in Microsoft's new streamlined certification structure is the evolution of its certifications related to [Azure](#). The MCSD: Azure Solutions Architect certification, previously made up of the 70-532, 70-533, and 70-534 exams, is about to be retired. However, the exams making up the MCSD of old are being recycled to create the new [MCSA: Cloud Platform](#) certification.

For the new MCSA: Cloud Platform certification, learners can choose any two exams from a pool of options that includes updated versions of the [70-532](#), [70-533](#), and [70-534](#), in addition to the 70-473 and 70-475.

But Why Do Certifications Retire?

Certifications are usually retired to align with the issuing vendor's business goals. In Microsoft's case, as products and services have evolved — for example, the move to a cloud-first and mobile-first strategy — the certifications associated with older technologies are no longer maintained. Not only do some certifications become out-of-sync with Microsoft's overall business goals, they're also costly to maintain.

Microsoft also takes into account the popularity of its certifications as well as customer feedback on the value of certification paths.

What happens when a certification is retired? If you've passed an exam for a certification that ends up being retired, it doesn't mean that your certification is invalid. You're actually certified for life! While the certification will no longer be able to be earned, it still remains in the Legacy section of your transcript.

How to Stay Informed of Certification Retirements

Microsoft's [goal](#) is to provide at least six months notice prior to retirement so you can plan to either finish your certification or pick a different path. After all, there's no reason to begin preparing to take an exam if

the certification will be phased out before you can complete it. But where should you go to stay informed of those changes?

First and foremost, Microsoft's own [retired exams page](#) and [retired certifications page](#) are the best places to look to stay informed. There, you'll find exams scheduled to retire as well as historically retired exams and certifications, grouped by product. These pages are updated regularly, so bookmark it and consult it as you plan your certification journey.

Microsoft's [Born to Learn blog](#), dedicated to their training and certification community, is another good resource. Not only will you get updates on exam retirements, you'll also find tips and tricks and the latest news about certifications, right from Microsoft employees.

Paying attention to news around Microsoft's technology development is another strategy for staying informed. If an exam is associated with a product or service that's being phased out, it's a good idea to keep a close eye on the exam's status. For example, the Windows Phone Developer MCPD was announced in 2011, but as Windows Phone lost market share and widespread usage declined over the next few years, the retirement of the certification followed.

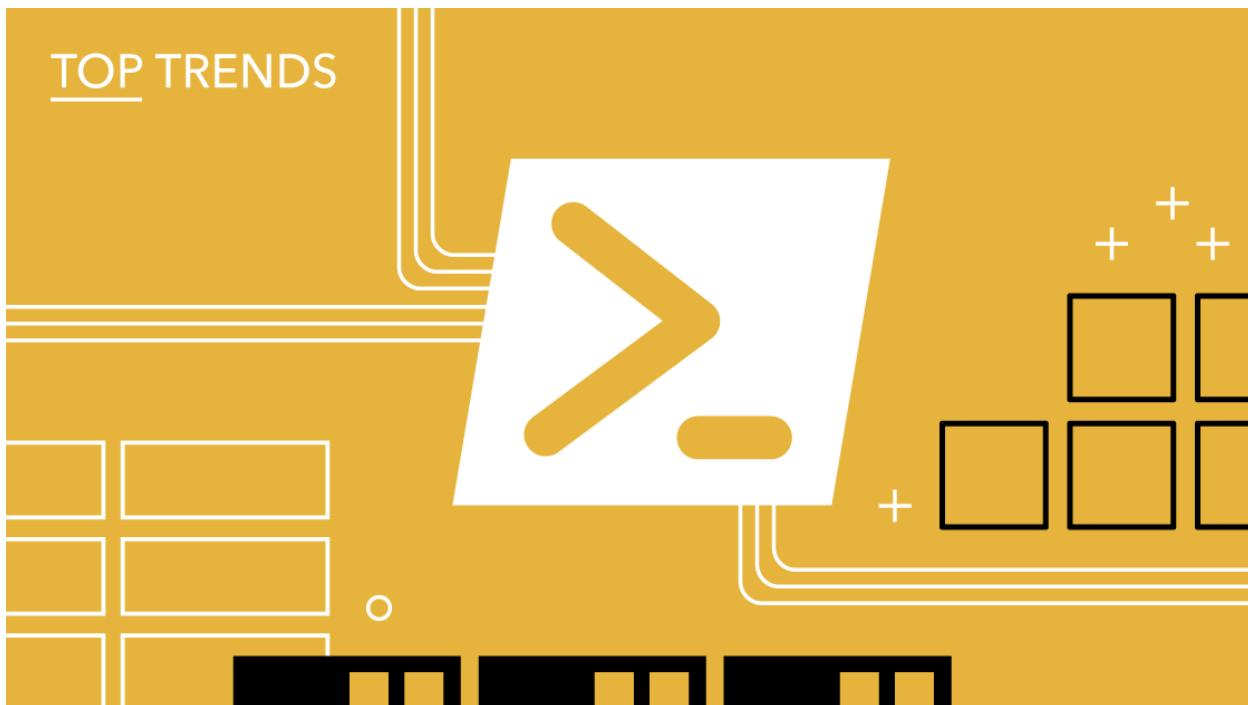
So what should you make of these changing certification paths, from MSCE to Windows 7 and beyond? Change, like everything in life, is inevitable. Thankfully, Microsoft provides resources and information about exams and certifications that can help you keep up with the pace of change. And don't forget that any retired certifications still remain on your record, even if you acquired them in the past.

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Going Beyond Servers with PowerShell

January 12, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



PowerShell sounds like something you'd find in Super Mario Brothers, or perhaps Mario Kart.

And if you already use PowerShell, that may be how it makes you feel, like you have something to throw at any problem. (By the way, here's a [Mario Powershell](#) theme, so you can even have the sound effects.)

If you don't use PowerShell, and you're working with Microsoft platforms, [you should be](#). You can use PowerShell for so much more than just installing and configuring [SharePoint](#).

Here's why we think you should be taking the time to learn more about PowerShell, and where we think that it could take your future.

PowerShell: Just the Basics

At its core, PowerShell is a platform and scripting language built on the .NET framework for managing and automating tasks in a Windows environment. Most commonly, PowerShell users execute tasks

with [commands](#), or *cmdlets*. PowerShell can also be incorporated into custom tools or other applications via API.

While it's been around for about a decade, PowerShell became [open source and cross-platform](#) for the first time this year.

For more information on PowerShell, whether you're a seasoned user or just getting started, we have a variety of [resources](#) to get you up to speed.

Microsoft's Recent PowerShell Push

The first version of PowerShell as a core component of Windows began shipping in 2005 and gained widespread use because of its obvious timesaving and task-simplifying benefits.

In recent years, however, some tasks that were previously able to be completed via a [GUI](#) began to require the use of PowerShell. Even as far back as 2008, tech publications were posting [pieces](#) about things you can only do through PowerShell.

Now, many current Microsoft server products are designed so that admins *must* use PowerShell to complete common management tasks. We even consider PowerShell 5.1 to be the [missing link to Microsoft components](#) in a diverse DevOps environment.

Beginning with Windows 10, Microsoft even replaced the basic Command Prompt with PowerShell in some parts of the operating system. While Microsoft isn't removing the Command Prompt from Windows altogether, the fact that it's replacing the default shell launched by File Explorer shows that PowerShell is moving more into the forefront.

So why the push? Consider that for the past several years, Microsoft has been pushing a cloud-first message. The company's products and services are increasingly oriented toward cloud infrastructure, and PowerShell is no exception. As Simon Bisson [put it](#), "You can't point and click in the GUI of every one of millions of physical and virtual servers. Instead, you have to automate every action, building scripts and services that can manage infrastructure and applications at scale."

PowerShell and Security

With the increased focus on PowerShell, there has been much discussion around PowerShell and security — both the security of PowerShell itself from attackers, and also how PowerShell can be leveraged to increase security in an environment.

Due to PowerShell's extensive capabilities, it can be attractive to those looking to exploit it with malicious intent. PowerShell has its own execution policy set to default to not allow [scripts](#) to execute automatically, which protects against some vulnerabilities. However, admins should take care to create additional security measures as needed, such as deploying AppLocker security policies or delegating limited admin privileges.

All of PowerShell's potential can also be harnessed to automate and execute difficult or laborious security tasks. The [Security Module](#) contains cmdlets to manage basic Windows security features, for example. Admins can use PowerShell to audit Windows security policy settings, access security event logs, and more.

The Future of PowerShell

In 2016, Microsoft [announced](#) that PowerShell is now open source and available on Linux (along with Windows, of course, and Mac OS). This marks a new milestone in Microsoft's shift toward more open, cross-platform, innovative offerings. Some would say it's not altruism. Instead, it's a move that allows Microsoft to compete in an increasingly unsiloed environment.

In any case, [IT pros still reap the benefits](#).

With PowerShell available on Linux through [GitHub](#), users can now integrate PowerShell even more with their existing tools and platforms. While the PowerShell community has always had a strong influence over development, the move to Linux shows the collective voice that users can continue to use to contribute to the future of PowerShell.

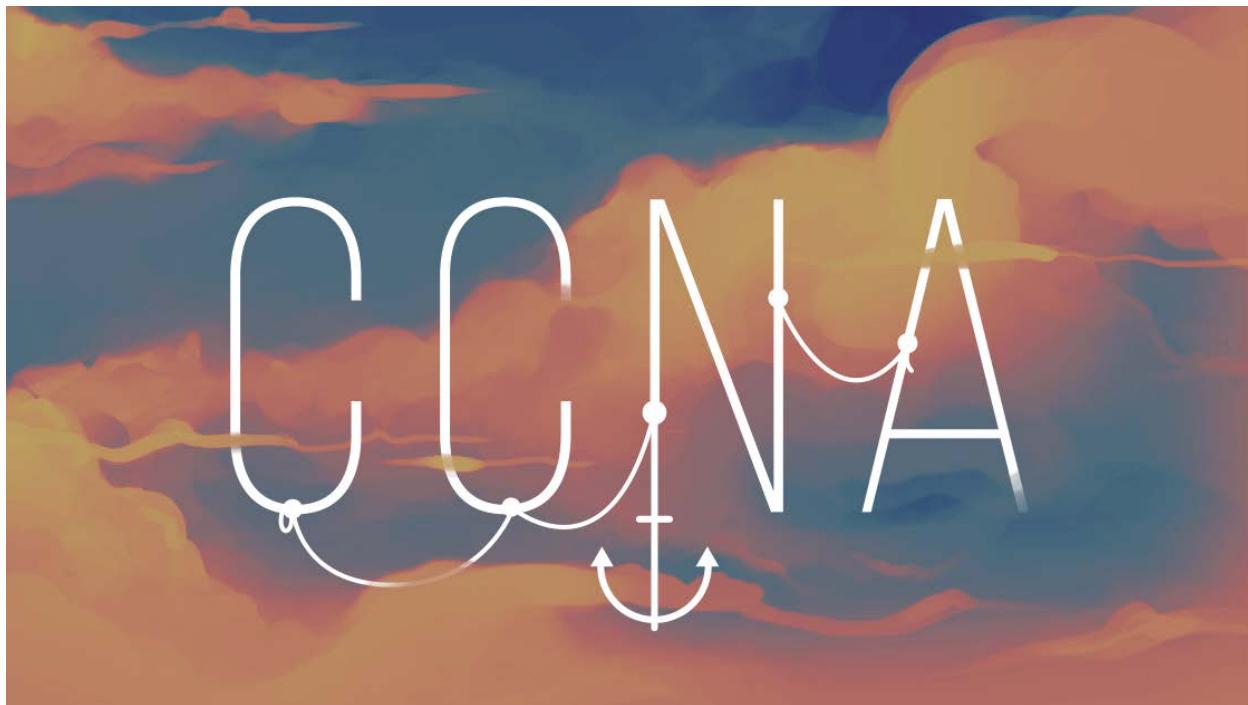
Microsoft has successfully established PowerShell as central to administration and management of their enterprise products, and that will only become more apparent as time goes on. Expect to see PowerShell capabilities continue to outpace some GUIs, as well as integrate with more third-party tools and platforms. Now is the time to embrace PowerShell.

It can be a great [benefit](#) to your current environment and your future career, now and in the future.

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Anchoring your Cloud Experience with CCNA

February 16, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



As organizations increasingly move to the cloud, new training and certification programs are being developed to define the skills needed to work with cloud technologies. Cisco's [Certified Networking Associate Cloud \(CCNA Cloud\)](#) is one such certification, designed for IT professionals who specialize in cloud solutions.

The CCNA Cloud certification aims to develop the IT pro's cloud skillset and enable them to navigate inevitable changes in cloud technologies. As Cisco becomes increasingly cloud-focused along with the industry at large, CCNA Cloud can help you succeed in the growing number of organizations that use Cisco technologies.

CCNA Cloud Certification: the Why and How

Technical certifications are numerous, so it's important to understand not just what a certification designates, but how it can benefit you. Cisco itself has over a dozen certifications are divided into five levels: Entry, Associate, Professional, Expert and Architect.

The CCNA (Cisco Certified Network Associate) Cloud certification sits in the Associate category as part of a Cloud track (including both CCNA Cloud as well as CCNP), and it's designed for those who want to master the skills necessary to support Cisco cloud solutions.

[According to Cisco](#), the CCNA Cloud certification "prepares you for work in an SMB cloud environment, and to support a senior cloud engineer in an enterprise environment." The topics covered include fundamentals such as cloud deployments, networking, provisioning, remediation, and end-user support, among others.

The CCNA Cloud is a great certification for entry-level IT pros seeking roles as cloud engineers, cloud administrators, and network engineers. Those already in those roles may see value in the CCNA Cloud as a way to validate their existing skills, because it's a relatively new certification.

To achieve the CCNA Cloud certification, you need to pass two exams: [210-451 CLDFND](#) and 210-455 CLDADM. The exams focus on cloud infrastructure concepts and cloud administration/management, respectively.

Preparing for CCNA Cloud Certification

There's a wealth of resources available around the CCNA Cloud certification, from online forums to training videos, and you may not know where to start. First, understand that there's no prerequisite for taking the exams, but at minimum you'll want to be comfortable with the basics of [networking](#) and [data center](#) technologies. Start by making sure you understand [basic cloud computing definitions](#) put forth by the National Institute of Standards and Technology.

Depending on your level of expertise, you should dedicate some time to exam preparation. [Develop your own plan](#) depending on which objectives you need to master. For more details about the exams, and a simple breakdown of what you need to know about the CCNA Cloud cert, check out our [Roadmap to Success: CCNA Cloud](#) post. Additionally, Cisco itself provides many resources for preparing to take the exams, including the study materials [here](#) and [here](#).

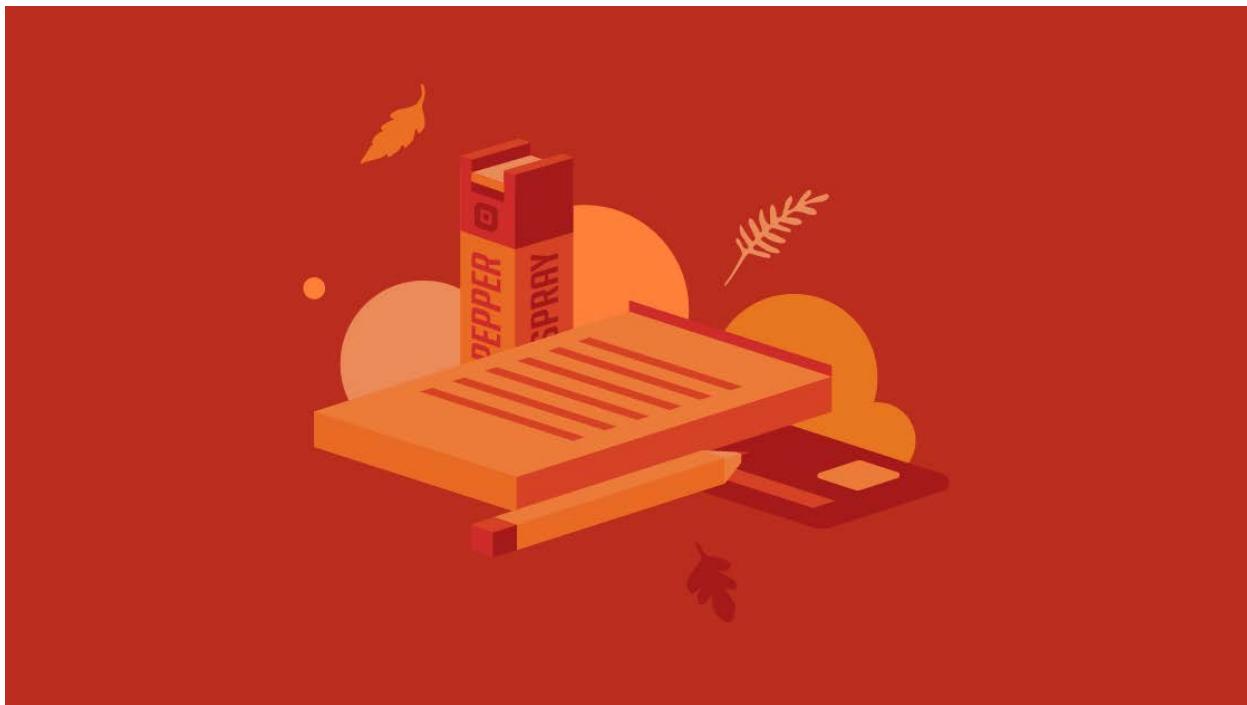
The move to the cloud is here. If not in your shop, then it's just around the corner. IT pros must adapt and adopt new skills and practices alongside the changing technology of today's businesses. Cisco's CCNA Cloud certification is a valuable tool for keeping up with the pace of change. The CCNA certification signals to current and future employers that you are an agent of that change, specializing in modern, innovative, cost-saving technology.

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21 Best Black Friday Steals for IT Pros

November 24, 2016 | [Everything CBTN](#) - By [Team Nuggets](#)



Happy Thanksgiving!

IT pros have a lot to be thankful for, but there's no harm in adding a few things to your wish list. With the biggest shopping day of the year nearly upon us, it's time to develop your Black Friday shopping strategy.

We've pulled together some of our best ideas for gear, tools, and fun stuff to look out for this year.

Throughout the list, we'll note some deals valid at the time of publication, and also where to shop if you like to find your own. And while lining up in the early morning hours on Black Friday can sometimes save you some dough, we think your sleep is valuable too, so these wish list items are mostly available online.

One more quick note: Post-Thanksgiving deals now spread to Cyber Monday. Black Friday is a much bigger draw for technology retailers, but it's worth taking a peek at deals on the Monday after as well.

Devices and Other Hardware

Black Friday can be a great time to pick up hardware for the office or home, and nearly every seller of tech products will have deals this year. It's worth checking out your favorite stores' websites, but we have a few suggestions.

[Best Buy](#) is your best bet when it comes to phones, tablets, monitors, and laptops this Black Friday. They traditionally hold holiday sales that offer deep discounts, but make sure to cross-check on sites like [Newegg](#) and [Amazon](#) where you might find comparable, if not better, deals.

Don't skip checking manufacturer sites and online stores, too, like [Dell](#), [Lenovo](#), [Asus](#), or your own favorites.

Here are some 2016 hardware deals to look for:

[Save \\$400 on a Surface Pro 4 at Best Buy](#)

[Save \\$200 on a MacBook Air, also at Best Buy](#)

[Save \\$70-150 on iPads at Target](#)

[Save hundreds on Vizio and LG TVs at Costco](#)

If you have a flexible purchasing policy, look for deals to snap up and expense.

[Newegg is advertising](#) hard drives and other parts, while Amazon may be your best bet for items such as printers and routers.

Software and Subscriptions

If you've been looking to try out the latest SaaS applications, now may be the time to make the commitment. Services like Microsoft Office 365 offer subscriptions at a discount on Black Friday.

Microsoft deals are [here](#) (you can track hardware deals there, too).

Many other SaaS products, mobile apps, and the like will have Black Friday specials. For example, [Adobe Creative Cloud](#) usually offers holiday discounts.

If you're an information junkie, keep an eye out for bargains on magazine, newspaper, and online media subscriptions.

There's one other subscription you should consider picking up: a [CBT Nuggets subscription](#)! (Yes, we clearly have a bias here, but it really is something to be thankful for as you look to advance your IT career!) CBT

Nuggets offers monthly, semiannual, and annual subscriptions, making it easy to give a month as a gift to a friend or colleague, or claim a year for your favorite IT pro: yourself!

Fun Stuff

Black Friday doesn't have to be all sensible, business-ready technologies!

Take a little time to add some more lighthearted items to your wish list — after all, a fun-deprived IT pro isn't good for anyone.

If you're into gaming, there are lots of great sales for you. Here are a few that caught our eye:

[Save \\$50 on an Xbox One S Battlefield 1 Bundle at Target \(plus get a \\$40 gift card\)](#)

[Save \\$50 on a PlayStation 4 Uncharted 4 Bundle \(plus a \\$30 gift card\)](#)

There will certainly be more deals to come on [Steam](#), as well.

All the big-box retailers will have deals on goodies like drones, fitness trackers, hoverboards, smart home products, and a plethora of other items that you might've been wishing for throughout the year. Now is the time to add them to your list, and check out deals that may pop up.

Black Friday is also a great time to check out fun subscription products like [Loot Crate](#), [Dollar Shave Club](#), and [Shirt Block](#).

And now a last word of advice. It can be easy to get overwhelmed when shopping, so keep your head about you and use common sense. Keep in mind what you actually need and track your budget.

If a deal seems too good to be true, do a little investigating.

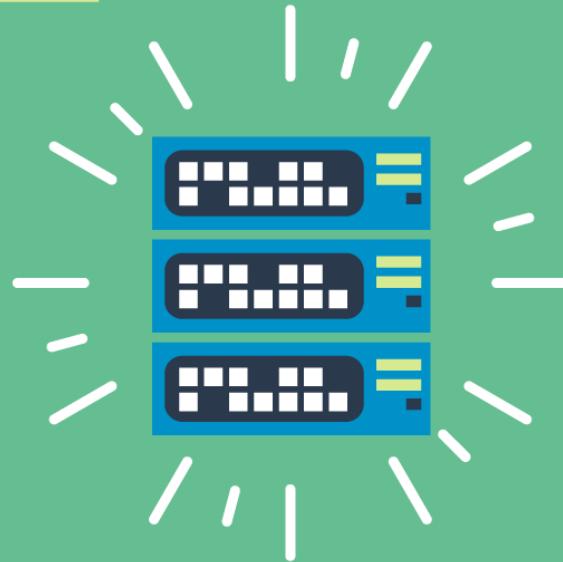
We hope some of these items make it onto your wish list, and then into your hands.

Happy holidays!

6 Reasons Why Cisco Networks Rock

April 5, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)

Cisco vs. Juniper



[Cisco](#) continues to dominate the industry as the premier enterprise networking vendor. And it's no surprise: Since the 1980s, Cisco has been one of the biggest global networking companies, growing from a seller of switches and routers to a provider of complex telecommunications, cybersecurity, and networking solutions.

Cisco continues to prove the value of their technology, and we expect them to carry on crushing the competition for years to come. Here are six reasons why.

1. Ubiquity

Cisco is a behemoth. Its enterprise-level products and services span a wide range of categories. You're unlikely to find a company that doesn't use something Cisco.

However, just a company's size and scope doesn't make it great. What really matters is the quality of what it offers. And Cisco is consistently great. From switches to firewalls, Cisco's comprehensiveness combined with

top quality performance is hard to beat. It's a sign of Cisco's competitive advantage, and a good reason to invest in [becoming a Cisco expert](#).

2. Security

No matter what your IT role is, [security](#) must be a top priority these days. Cisco networks rock because you don't have to doubt their security, at any level.

Cisco's dedication to security is baked into everything from their switches and routers to their [certification paths](#). Cisco is experienced at handling even the most complex security scenarios — for example, they prioritized security in their network offering for the [Rio Olympics](#). You better believe they can control access to your network.

3. Scalability

We're covering Cisco's greatness when it comes to enterprise-level offerings, but it's worth noting that you can start very small with Cisco and scale, scale, scale. There aren't many companies that offer both a \$40 home router as well as services to huge global enterprises with multimillion dollar solutions. That goes to show that no matter where you're starting as an IT pro or business owner, Cisco's networking tools and products can scale with you as your role or your company grows.

([Fun fact](#): Cisco set the Guinness World Record in 2004 for the world's highest capacity router — a record that still stands today.)

4. Availability

As an IT pro, you're hyper-aware that network availability is critical to employee productivity. If reliability and availability are priorities for your IT department and overall business priorities — and it's pretty likely that they are — you can't go wrong with Cisco. To get the most out of your [IT budget](#) (and to stay in your colleagues' good graces), uptime should be guaranteed.

With Cisco, you benefit from device-level and network-level standards and controls in place to ensure reliability. With Cisco behind you, costly downtime can be avoided, even in the most complex networks.

5. Automation

Cisco understands business and IT needs when it comes to automation and has the capacity to set the stage for future advancement. As networks become more robust and complex, Cisco has offered new services and

added features to existing products in order to meet the industry's demand for automation and virtualization solutions.

For example, check out Cisco's [Cloud and Systems Management](#) offerings or their [Embedded Automation Systems](#). Avoiding human error while saving time and lowering costs for the business is a no-brainer.

6. Customer Commitment

While customer satisfaction isn't exactly a technological benefit of Cisco networks, it's an important element of Cisco's success story and a big reason why many businesses and users are loyal to Cisco. From the [certification paths](#) to [Cisco Live](#) to the support forums, Cisco provides a wide variety of programs and resources to ensure their customers' success.

There you have it: Six reasons Cisco networks are awesome. We think that these reasons — from network availability to security to scalability — are priorities for most IT pros out there, if not requirements for professional success. Cisco provides a comprehensive experience that starts with a secure network infrastructure and ends with automation, innovation, and a path to the future.

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5 Simple Ways to Be a Better Googler

December 6, 2016 | [Everything CBTN](#) - By [Team Nuggets](#)



You probably spend a lot of time Yahoo-ing using IE8. Just kidding. Those are the people you likely support in your job, older relatives, and that one peculiar friend your own age. When confronted with a real head-scratcher support issue, you likely follow a process remarkably close to xkcd's [Tech Support Cheat Sheet](#), which sadly hasn't been incorporated *formally* into [Network+](#) or [CCNA](#) — yet.

What if you could teach your end users to do the same thing? While you really don't want folks messing with their own computers, you do secretly wish that they could google simple problems themselves.

Here are a few easy tips and tricks that will make them (and you) the best Googler possible. You probably already know this stuff, but we wrote it out so you don't have to.

Start Broad, Go Narrow

You probably know that searching keywords as broad as "printer" will produce a vast number of worthless results — literally billions. That's "Day 1" stuff.

Most of the time you can keep adding words until the results resemble the answer to your question. If more words aren't helping, consider adding filtering techniques to narrow your search.

Pro tip: The minus [operator](#) (-) next to a word will help you exclude unwanted results, while using quotation marks will return only those exact words, in that order.

For example, your search term may be: printer error spooling -pc. This string searches for webpages including the terms "printer" and "error," also including "spooling" (in that order), and excluding "pc."

Or, you can search for "cbtnuggets" and "printer errors," to find our [CompTIA A+](#) training.

Use Natural Language

Not sure where to even start? Just type in the question like you're asking Jeeves. (By the way, Ask Jeeves sorta still exists as [ask.com](#)). Google responds well to searches in natural language.

In recent years, major search engines have made efforts to improve natural language search results, helping your searches return faster and more efficient results.

This way, you don't have to wrack your brain for the exact right combination of keywords, or memorize the aforementioned search operators. For instance, if you're studying for [CompTIA Network+](#), you could use "maximum distance of cat6a" or simply "port 23."

Searching for Error Codes

Your end users probably don't need to worry about this one. Except for 404. They should know that one.

Unless you have a really special talent, you're not going to have an encyclopedic memory for troubleshooting every software and hardware issue out there. And, quite frankly, search engines have made it unnecessary.

Use Chrome to its Fullest Potential

Many of us are more particular about our browser choice than our search engine choice, and Chrome may not be your #1. But if you *really* want to maximize your Google superpowers, unlock the potential of Google Chrome.

Have you ever used an older relative's computer only to find that their browser search bar goes to Yahoo, Bing, or even McAfee search? It's bewildering. We know. Then again, it'd be just as weird to find their browser search defaulted to Duck Duck Go. ("Grandma, why are you using Tor?")

In any case, if you've been using Chrome for a while, you'll know that the address bar at the top becomes your search engine.

Pro tip: Ditch the often shoddy on-site search bars. You can also easily search an entire domain from Google by typing (or copy and pasting) the URL into the search bar and pressing spacebar, followed by your search term.

For instance, you could search the entire CBT Nuggets blog by typing "blog.cbtnuggets.com" followed by a space, and search away!

Keyboard shortcuts will also help you whiz around Chrome. Learn hotkeys for your most common actions [here](#).

Have Some Fun

Google has dozens more lighthearted features that can make your searching more useful *and* enjoyable. Here are a few:

- Search "calculate tip" to bring up a tip calculator that will settle any dining out dispute.
- Play with past Google doodles like [Pacman](#) and [the guitar](#).
- Track your packages by entering any USPS, UPS, or Fedex tracking number directly into the search bar.
- Set a timer by typing or using voice commands to enter "set timer for..." and then your desired amount of time.
- Type "roll a die" or "flip a coin" to generate random choices.
- Discover how many hours of daylight you have left by typing "sunset in" plus your location (or conversely "sunrise in").
- Search "[do a barrel roll](#)" (without the quotes) or "[askew](#)" (without the quotes).

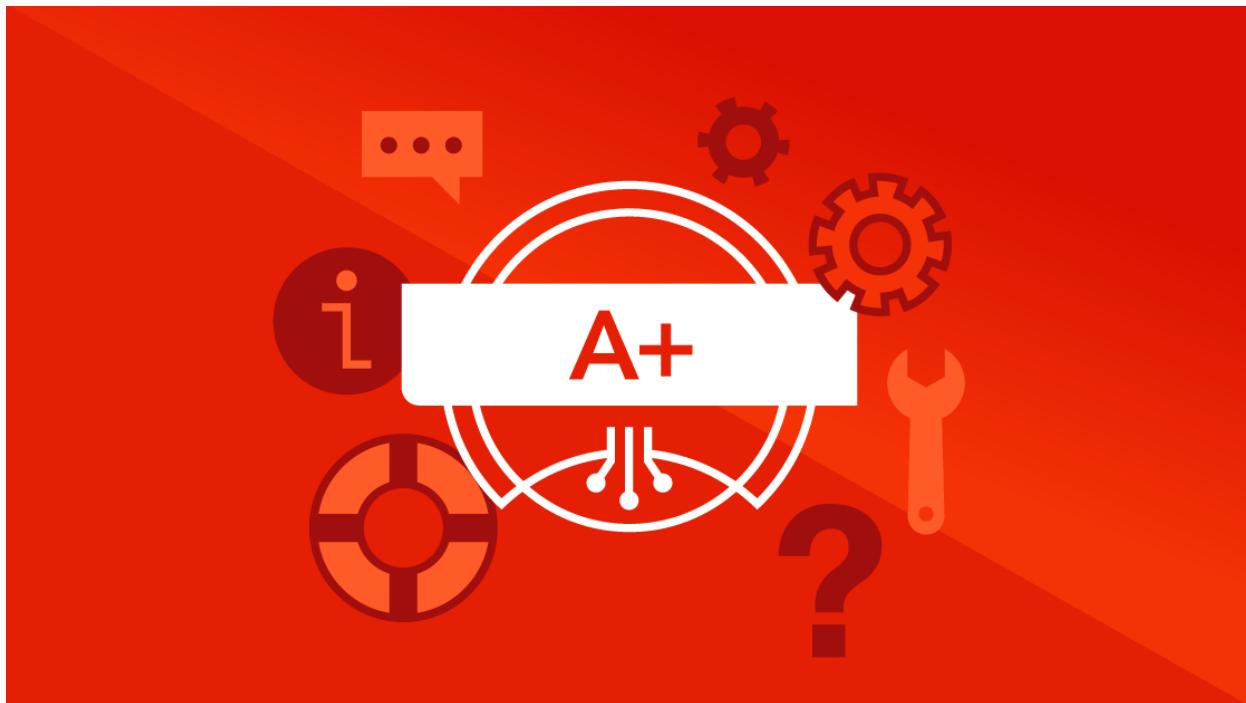
With the amount of time we spend searching for information online, incorporating these strategies into your repertoire will surely save you time and effort so you can get back to your day.

Happy searching!

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5 IT Careers Where A+ Really Counts

February 9, 2017 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



CompTIA A+ is a great starting point for your IT career. The CompTIA certification not only teaches you the basics about hardware, it also validates your knowledge to managers looking to fill open positions. It'll certainly move you higher on the "interview" list.

But, what type of career opportunities will the certification open? Especially if you're new to the industry, you may not know exactly what those promising career paths are and how CompTIA A+ can get you there.

Here are five career pathways that A+ will fast-track for you, listed from least to most advanced.

1. Help Desk Technician / Help Desk Analyst

Average salary: \$44,000 – \$53,000 per year ([source](#) / [source](#))

The entry-level help desk position is a [starting point](#) for many an IT Pro. Just as the help desk role is foundational for many IT careers, the A+ is foundational for the help desk role itself.

CompTIA's A+ certification shows that you have a general, comprehensive background in everything required for a help desk support role, from network administration to information security to troubleshooting of both software and hardware systems.

2. Systems / Network Administrator

Average salary: \$68,300 – \$75,900 ([source](#) / [source](#))

Network administrators are core to maintaining a company's existing systems as well as innovating for cost savings and modernization.

NOTE: While some shops distinguish between sysadmins and network admins, we're combining the roles under one umbrella here. As we all know, the job description and actual duties are [often quite different](#).

To be successful as a network admin, you'll need the broad base of skills validated by CompTIA A+ certification, including troubleshooting skills. Strong troubleshooting skills are a critical part of the role and an excellent starting point for [your entire networking career](#).

3. Database Administrator

Average salary: \$68,500 – \$85,200 ([source](#) / [source](#))

Database administrators play a pivotal role in their company's stability and operational success. DBAs also have a high potential for career and salary growth, so if you have your eye on this [fast-moving IT career field](#), getting your A+ certification is a great place to start.

Successful database admins possess a balanced range of skills, beginning with a broad yet thorough understanding of networking, troubleshooting, and security across hardware and software in a business setting.

DBAs must possess communication and customer service skills in order to work across departments in the business. While it's not on the A+ exam, you might also want to brush up on your soft skills ([according to Bruce Lee](#)).

4. Server Technician / Administrator

Average salary: \$65,500 – \$76,400 ([source](#) / [source](#))

There are many ways to make a [career in server environments](#). Whether you're building or maintaining servers that run Microsoft, Linux, or UNIX operating systems, the CompTIA A+ certification covers the basic topics you'll need to know.

While there are some advanced certifications dedicated to server administration, such as [Microsoft MCSA Windows Server 2012](#), the A+ is your starting point.

As with many roles on this list, accurate troubleshooting and solving for complex issues is at the heart of server administration. To succeed in today's server job market, you'll need a firm understanding of virtualization, desktop imaging, and deployment. All of these concepts are woven through the [A+ certification curriculum](#).

5. IT Security Specialist

Average salary: [\\$72,000](#)

IT security roles are among the [hottest in the market](#), and a CompTIA A+ certification can help you meet the requirements for some security specialist roles. In these positions, you'll need a thorough understanding of the areas that A+ covers, such as networking, operating system administration, as well as hardware and software installation and configuration. ***Emphasis on thorough.***

Keith Barker [recently said](#) that learning (or brushing up on) the fundamentals is the single most important thing you can do to start your IT security career. For instance, can you list every step that happens when you click "send" on email? If not, then it's time to start learning.

Even if you have years of experience and never earned the A+, it might be a worthwhile investment for your future security career. Passing the [A+ certification exams](#) sends a strong message to employers that you're ready for the nuts and bolts associated career in IT security.

While no degree or certification is a guaranteed ticket to your next job, CompTIA's A+ puts your IT skills to the test, shows employers that you're ready to advance in the field, and prepares you for more [advanced certifications](#).

CompTIA A+ is only the first step toward a successful IT career. Once you've earned your first cert, you'll be ready for your next steps. If you're wondering what's next, we've laid out career pathways for IT pros following the [networking](#), [security](#), [DevOps](#), [virtualization](#), and [system administration](#) routes.

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Transitioning from the Lone IT Pro to a Team

November 9, 2016 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



“IT department, party of one.”

When you’re a one-person IT team, it’s like being an intern and the boss — at the same time. You’re maintaining infrastructure, resolving desktop issues, and fielding a wide variety of personal requests from your coworkers. (What’s wrong with my phone?)

Being *the lone IT pro* can have its pros and cons, but there’s a point when maybe you want to join an IT team, and you’ll face challenges that come with this transition.

Here are a few tips for the solitary IT pro adjusting to a role in a larger IT department.

99 Tickets, but Desktop Support Ain’t One

In your era of the one-person-IT-shop, your colleagues were probably used to making one-off requests in any format they wished. You usually responded quickly to these requests, and maybe you earned a reputation as a great problem solver, a linchpin, and a valuable asset to the business.

You don't have to jettison the title as a problem solver. It's just going to be different. Your allegiances now are to your team and the ticket system (and, okay, maybe a few favorites who come directly to you with requests).

Depending on your personality and work preferences, this could lead to a great reduction to your stress level. You don't have the weight of the entire organization on your shoulders, but it also may feel like you've become less individually valuable.

The good news is that there are lots of opportunities that come with a growing team.

Teamwork = Soft Skills

Time management becomes a whole new ballgame as your responsibilities shift toward the team. You may be able to delegate tasks to new team members, which can relieve your workload, but it can be tricky to get used to. Or you may begin reporting to a new manager. After years of self-direction, that transition would be difficult for anyone.

If you find yourself in this situation, it's a good time to work on your soft skills. As your team grows, you may be faced with new situations like giving presentations, attending conferences and networking events, and managing others, meaning you could be giving and taking criticism, resolving conflicts, and other scenarios that you may never have encountered before. Soft skills are essential for success in a team environment. Learn what to expect in our [soft skills training course](#).

Prepare for these potentially difficult transitions. If you don't face any challenges, great! But if you do, going into it with some self-awareness and practical preparation will serve you well.

Get Out of the "Just Do It" Mindset

How many times in the past did you take on a task with an "Oh, I'll just do it" mindset? Naturally, a larger team will be able to take on bigger and more business-critical work than a team of one. Just getting something done becomes more complicated as the nature of work changes.

You'll be working with (and among) lots of moving parts now. Don't just do it. Keep pace with your team. Someone is relying on you now. Tackle these challenges by staying organized and documenting as much as

possible. Be patient, and consider adding some project management skills to your toolbox, like [ITIL®](#), [PMP®](#), or [Prince2®](#). Even if you're not a manager of people, get into that mindset. Be a manager of components and processes. You should be good at that from your solo experience.

This adjustment period is natural. Your new team must implement new processes in order to scale, which takes time — and the rest of your company may have a difficult time adjusting, too.

Growing Your New Team

Depending on your role in your new company, you may be a direct participant in the hiring process for growing your team. If you've never taken part in the hiring process before — screening candidates, conducting interviews, choosing who to make an offer to, and ultimately onboarding someone new — it can be challenging and even overwhelming.

You may be used to doing things alone, but don't take on this process solo if it can be avoided. If your company has an HR department, lean on them heavily for help. They've conducted plenty of interviews, and should know the hiring process inside and out.

While you're interviewing, your coworkers will be able to help you determine if a candidate possesses the ever-elusive "culture fit" to balance with the skill set that your team needs.

Even if you're not involved in hiring, the transition from the solo IT endeavor to even a team of two or three brings more practical challenges.

Find Your Place in the Organization

As the solo IT pro, you were required you to develop a broad base of skills. Finding your place in a larger organization means figuring out if you want to broaden or specialize your skill set. To help you make that decision, you might want to watch our trainers discuss the "Wide vs. Deep" concept in [this video](#). Maybe you want to do both.

The ideal team in any department is comprised of members with "T-shaped" backgrounds, skills, and experience levels. In other words, folks with broad knowledge bases to troubleshoot, analyze, diagnose, and problem solve, while balancing those skills with a specialization (or a few) to contribute to more complicated issues like upgrades, lifecycle management, and performance problems.

There's opportunity to learn in a larger organization.

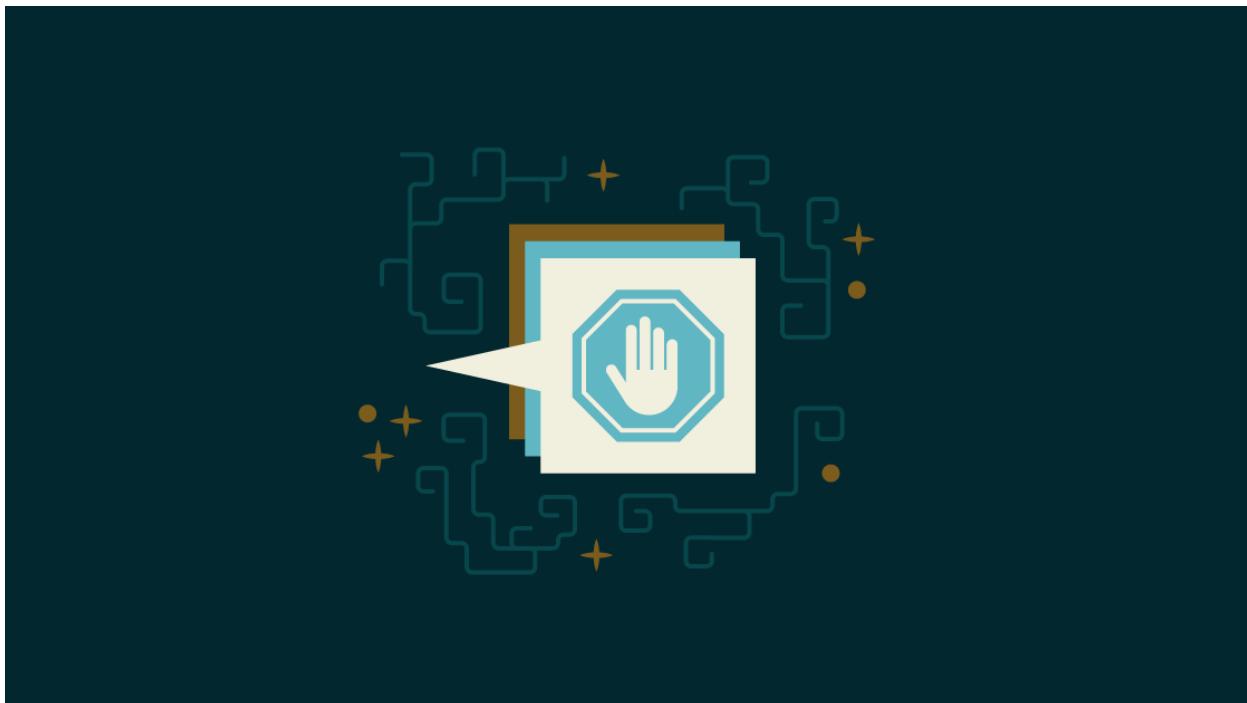
Congrats, You Get to Take Vacation Now!

Now that you're part of a team, you have more flexibility to take that once-elusive PTO day, specialize your skill sets with new experience and certifications, or dedicate time to [your soft skills](#) or project management training. You will probably be busy, but it's a new kind of busy.

Being the lone IT pro means you're a single point of failure, and growing your team is a good thing. So even though it requires some adjusting, and you may face some bumps along the way, embrace your new status as a party of more than one.

The Art of Saying “No” as an IT Pro

March 20, 2017 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



Nobody likes to be the bearer of bad news. When you’re in an IT role, however, it’s sometimes unavoidable. The upgrade will be double the estimated cost, the data can’t be recovered, the email that the CEO clicked on was indeed a phishing attempt.

Sometimes, even a simple “no” can be tough to deliver. You may feel that in your role, it’s not okay to say “no” to certain people. But saying “no” can actually benefit you, as well as the person you’re turning down, and it’s possible to share the news without causing conflict or strife.

Why Saying “No” Is Crucial

No one can do it all. Whether you’re on an IT staff of hundreds or you’re [de facto tech support in addition to your non-IT job](#), you have a limited amount of time and resources.

You may take on responsibilities because of your ambition; for example, if you're trying to change your career path or [climb the corporate ladder](#), you might volunteer for extra work or take on difficult requests in order to move toward your goals.

But saying "yes" to every request, big or small, puts you on the fast track to stress, burnout, and depression. In other words, not learning how to say "no" can be counterproductive to your co-workers, your company, and most importantly, yourself.

Saying "no" can be awkward and difficult. But learning how to do it allows you to set boundaries that will help you be more productive, gain respect, and advance your career.

Now that we've convinced you of the value of no, read on for some tips and guidance on how to do it.

Be Prepared

Before you can respond to any request, you need to have an accurate understanding of [your own availability](#). This means staying organized and exercising good communication with your superiors. This will help you to understand your team's priorities, as well as the big picture of what's going on at your company.

Prepare yourself with strategies that can make saying "no" more palatable to the recipient. One classic method is sandwiching a "no" between two positive statements. Let's say you can't stay late because you're taking a class, but your coworker asks you for help. Explain that you would like to assist but you have a professional commitment that conflicts, and then ask how you might be able to help tomorrow.

Another strategy to try is pre-empting. If you're in a meeting and sense requests coming that you'll have to say "no" to, announce at the beginning that you're going to do your best to contribute, but you're booked solid for the week. If you've got a big project to finish, work with your supervisor to send out a company-wide email letting employees know that only urgent help desk tickets will be answered for the next several days.

Lastly, don't be afraid to refer your requestor to [someone else more appropriate](#) for the request. If a new colleague asks you to help get wifi set up in a meeting room, but you're actually the security analyst, direct them to the right person or process to get their task completed.

Take Your Time

Sometimes saying "no" can be difficult simply because you feel rushed. There's nothing wrong with telling someone you need a little more time to give their request some thought and/or check your availability. This may mean consulting your calendar and replying in 10 minutes, or it may mean sleeping on it. Either way, it

signals to the requestor that you're taking them seriously but also honoring your existing commitments. You'll also have some time to consider the best way to say no.

Be prepared to repeat yourself. You aren't always going to get an "Okay, that's fine" response to your "no." You may get pushback, and the best way to respond is with patience and simplicity. Say "no" again and repeat your explanation if needed, but don't over-explain.

Deliver "No" in the Right Way

Saying "no" the right way may be the hardest part of all. It's easy to fall into the pattern of cushioning your "no" with weak phrasing such as "I'm sorry but I don't think I can..." It's important to be polite, but hedging or apologizing like this simply leaves you open to pressure and doesn't actually help the other person.

However, a flat-out "No" can be inappropriate, especially if it's to a supervisor or someone in a position of leadership. In many cases, it's important to acknowledge the requestor with an introductory phrase such as, "Thank you for thinking of me, but..." If you need to say "no" to your employees, you should also couch your "no" in affirmative statements and an explanation of the reasons behind turning down their suggestions or requests.

Armed with these tips, we hope you feel more empowered to say "no" as an IT pro. While it can be difficult to be the bearer of bad news, learning when to say "no" is better for everyone in the long run. In order to be successful at work, you need to stick to your priorities and be true to your convictions. Your future self will thank you for it.

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Technology We're Thankful For: Virtualization

November 21, 2016 | [Everything CBTN](#) - By [Team Nuggets](#)



Some families have a Thanksgiving tradition of going around the holiday table and sharing what everyone is thankful for this year.

This year, we want to express our gratitude for virtualization.

Why is [virtualization](#) a technology to be thankful for? There are lots of reasons, across [server](#), network, and [desktop](#)virtualization alike.

The Ultimate Benefit: Saving Money, Saving Time

Let's face it, most CEOs aren't going to be impressed by a well-oiled server room, even if it is perfectly dusted and air conditioned. But being able to consolidate virtual resources and get servers up and running within minutes? That may catch the executive's eye.

Even though there's a certain nostalgic charm in setting up physical machines, there's no downplaying the time-saving and cost-saving benefits of virtualization.

We're thankful because it's fairly simple to explain: Fewer physical assets means money saved on space, maintenance, and utilities.

Going one step further, provisioning and deployment is quicker in [virtualized environments](#), meaning time is saved throughout the entire timeline of purchasing hardware (including paperwork), waiting for delivery, acquiring licenses, and going through the install process.

All of the benefits we're listing here can lead to increased efficiency, and with increased efficiency comes reduced costs, not to mention an easier work life for you. And that's something to be thankful for.

Preventing Headaches that Come with Downtime, Dependency, and Disaster

While many of your users may not be able to define uptime, they certainly notice it when it's, well, down.

With virtualization comes increased uptime, because any issue that arises with one virtual server or machine doesn't necessarily affect the others.

Hand in hand with uptime is business continuity and availability. To your colleagues in a virtualized environment, business never stops.

For example, you can run your company's accounting software on one VM and document management and collaboration tools on another. The applications are completely segregated, so when you do maintenance on your document management software and end up rebooting the machine, you won't have the [CFO calling you angrily](#) because he can't pull the company's Q3 numbers.

Even though your end users don't necessarily know the nuts and bolts of the system underneath their day-to-day usage, they too reap the benefits of virtualization.

Now let's say something a little more significant happens than a simple application update. Virtualization has you covered in the world of backup and disaster recovery more comprehensively and reliably than strategies of the past.

Creating replication sites is much simpler than with physical servers. In the event of a system issue or datacenter failure, you'll be thankful that your server can be backed up down to the file and setting level, and restored simply.

Variety and Flexibility with Virtualization

Want to test out software on different operating systems? Great!

With virtualization, running different operating systems is no problem. No matter what you're testing, you can keep your testing environments isolated, and if you do make a critical error you can easily revert back to previous snapshots.

Virtualization also saves you from vendor lock-in, because unlike in pre-virtualization systems, software and hardware aren't inherently tied.

Sure, you'll still have contracts and certain sunk costs to contend with, but it's much easier to be flexible when you aren't dealing with maintaining and replacing hardware and equipment on the same level. Once your contract is up, you can easily pick a new vendor if needed because migration is simpler.

Whether you've been in the business for decades or you're a new IT pro, it's hard to imagine a world without virtualization. It gives you the power to save your company money and yourself time and headaches, and you're able to run the business of IT with much more efficiency and flexibility.

Even if you don't mention virtualization to your cousin over Thanksgiving dinner, it's truly a technology to be thankful for.

Explore [virtualization training](#) with CBT Nuggets to discover just how thankful you can be for this amazing technology!

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Connecting the Dots: Programming, SQL, and IT

November 4, 2016 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



This week, we focused on what SQL is, why it's important, and even previewed Microsoft SQL Server 2016! Let's tie it all together — programming languages, SQL, and IT!

IT is a diverse field, so it follows that IT professionals come from a diverse range of backgrounds. Some have graduate degrees in computer science, maybe some majored in the arts and ended up in technology, while others didn't pursue higher education, but learned IT skills through on-the-job experience.

IT pros from *any* background can benefit from ongoing training. Learning new skills enables you to excel in your current role and contributes to future career development. One of the most beneficial subjects to pursue is programming, and depending on your career path, SQL.

Why Should IT Pros Learn Programming?

At its core, programming enables us to interact with machines and information systems. Programming is also essential to automation, which is an inescapable element of the modern workplace.

Versatility. Learning programming languages makes any member of an IT department more versatile, and even invaluable to the rest of the company. It also provides practical benefits that you can use on the job, on a daily basis.

Automation. Even in smaller IT environments, learning about code and acquiring the programming skills to be able to problem-solve can help you to create automated solutions. Automation doesn't have to be fancy — simple scripts can save time, headaches, and money.

Have you ever cobbled together scripts you've found on StackOverflow, crossed your fingers, and hoped for the best? We've all done it. With a little time and determination, anyone is able to learn programming languages. And when you're in IT, you'll reap the benefits more than most.

How to Choose a Programming Language.

That's a tough one. There's no one-size-fits-all answer.

Pick your language based on the systems you use at your job, and as well as your own personal career aspiration.

You'll probably pursue the language that makes the most sense in your situation, such as [AngularJS](#) for building websites, or more general-purpose languages such as Java, [Python](#), XML, Perl, or C++. You also can factor in system-specific tools that you may be using or want to learn, like [PowerShell](#).

If you're working with databases often, then you'll probably want to learn SQL.

Why you need to learn learn SQL

If your business is like most, it likely can't run without functional, clean, and optimized databases. As business rely on a greater quantity of data, you'll find yourself in greater demand.

If you're a programming novice, don't worry. SQL is easy to understand and learn, and will be one of the most useful tools in your IT toolbox once you master it.

Understanding databases, not just how they work and interact, but also how to administer them and diagnose performance issues is key for any sysadmin or other IT pro. Knowing SQL well enough to write useful queries and manipulate structure data can help you be more self-reliant and even fill in as a database admin when necessary. Rather than relying on pre-built reports, you're able to directly query for the data you need to answer any question about the business.

Even outside traditional IT department tasks, SQL is a beneficial tool. It's hard to miss the buzz around business intelligence, big data, and analytics. Being able to actually perform the operations behind these buzzwords is not only impressive, it provides tremendous business value.

If you ever decide to make a career shift, learning SQL places you on a good path to specialize. You may even decide to become a SQL Developer or DBA — and that often means a higher salary and a more vital role in a company.

Getting Started

Critical analysis, logic, and creativity are required in all IT jobs, and the same goes for programming. Learning to write code — and combining it with your existing abilities and experience takes your skill set to the next level.

Want to start learning how to program? Take yourself all the way to expert level with [CBT Nuggets training!](#)

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8 Benefits of AWS

October 11, 2016 | [Everything CBTN](#) - By [Team Nuggets](#)



As companies continue moving to the cloud, options for cloud-based services and platforms continue to proliferate, and few options meet as broad a range of business needs as Amazon Web Services (AWS).

Running your applications on AWS can help you move faster, operate more securely, and save substantial costs, all while benefitting from the scale and performance of the cloud.

We rounded up eight of the awesome benefits that you can take advantage of when you use AWS.

1. AWS is Easy to Set Up and Use

If you've never used cloud services before, setting up AWS shouldn't intimidate you. Getting started is simple, no matter which product category you're using.

Amazon offers [documentation and tutorials](#) for running a virtual server, storing files, deploying and/or hosting a website, running a database, and more. The AWS Management Console also enables users to manage services simply and intuitively, with options for a command line interface and APIs.

Jeremy Cioara's [AWS: Core Real-World Functions](#) course shows how to quickly get started with AWS.

2. More Cost-Effective Than Other Options

Most of the benefits on this list relate to the cost-effectiveness of AWS. For example, you'll save money with AWS based on uptime and productivity-increasing benefits. Not only that, but AWS also has lower entry costs. A startup or small business can begin reaping the rewards of the cloud without having to invest much upfront. And the beauty of AWS is that you pay only for what you use, with no long-term contracts.

3. AWS Can Scale Up — or Down

The pay-as-you-go model and existing infrastructure of AWS means that you'll be able to take advantage of nearly unlimited scalability. No, really. Netflix uses AWS. If that's not a good enough benchmark, know that AWS adds more capacity every day.

As your organization grows and changes, services and resources can be quickly added and subtracted. Overall cost to the individual business is less variable than with other models, because you're using the service in aggregate with a huge existing customer base.

4. Everyone Gets the Same High Level of Security

Moving to the cloud doesn't mean less security. That's a fallacy. But neither is the cloud perfectly safe. Don't trust anyone who tells you it is. The best you can do is mitigate your risks, and Amazon has done quite a bit of risk mitigation. With [AWS's security model](#), you're not outsourcing every security decision. Whether you're a single user or a large enterprise, AWS provides the same world-class security.

All data is stored in secure AWS data centers that meet compliance and data residency requirements. You'll need to learn the essentials of Amazon Web Services so you can properly configure AWS for your business and your clients.

Jeremy Cioara also has another [AWS – Certified Solutions Architect](#) course with four Nuggets dedicated to AWS security.

5. Uptime All the Time

Working in the cloud doesn't automatically prevent downtime, but as a consumer you can have a reasonable expectation of high performance and minimal issues. [AWS topped Google and Microsoft](#) in terms of cloud uptime in 2015, and consistently delivers on their SLA guarantee of 99.95% uptime.

6. Flexible Services for Diverse Needs

Whether you're migrating from another cloud service or simply reorganizing your organization's IT infrastructure, you have choice and flexibility with AWS. You'll benefit from being able to use the operating system, programming language, database, and other software and services that work best for your environment. This flexibility will help you deploy faster and maintain agility over time. Other advantages like scalability and cost all tie in to the overall flexible nature of AWS.

Ben Finkel goes into considerable depth about individual tools in his latest AWS course: [Essential Tools](#)

7. Business Productivity Benefits

Scalability, flexibility, security, and cost-effectiveness are great on their own, but wait, there's more. They also enable business efficiency and productivity to increase. According to an [IDC report](#) quantifying the business value of AWS, "improved performance and faster deployment of applications with AWS mean that users are more effective at their jobs, pushing up productivity levels." It's true. AWS can bring your infrastructure costs down as well as man-hours with the [right training](#).

8. Ongoing Benefits: AWS Gets Better Over Time

The IDC report set out to identify long-term benefits of using AWS, with the central theme being that IT becomes able to focus on strategic, higher-level projects instead of routine daily tasks. And while that benefit was validated, the report also determined that all the benefits of AWS increase the longer you use it.

Saving money, enhancing productivity, enjoying first-rate scalability, flexibility, and reliability — *and* increasing all of these benefits over time?

Seems like today is a great day to [get started with AWS](#)!

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6 Signs It's Time to Leave Your IT Job

June 13, 2017 | [Everything CBTN IT Careers](#) - By [Team Nuggets](#)



Sometimes it's obvious: Your company is bankrupt, your role has been redefined in a way that doesn't work for you, a recruiter makes you an offer you can't refuse.

Most of the time, though, you don't have quite such obvious signs that it's time to leave your job. How do you know you're not just restless? Is it really time to jump into job hunting?

The IT industry has a particularly high turnover rate. Sometimes, being part of that turnover is justified. Here are some good reasons to consider leaving your job.

1. You're in a Hostile Work Environment

A "hostile work environment" can mean different things to different people, but if that phrase fits your workplace, it's the number one reason to leave your job. Maybe your boss berates you publicly when you make a simple mistake. Maybe your fellow sysadmins are [constantly complaining](#) and undercutting each

other's work in order to get ahead. Whatever the circumstances may be, a negative work environment is not one you want to stay in.

2. You Dread Your Time at Work

All of us get the Sunday night blues from time to time, but if you find yourself truly dreading Monday morning, or fantasizing about quitting in some epic way, consider what your emotions are telling you. What is it about your job that makes you unhappy? If the reason can be found on this list, or there's another difficult situation making you unhappy, it may be time to cut ties and start your [IT job search](#).

3. Your Health is Suffering

Even if you don't consciously dread going to work, your body may be telling you something else. Stress can impact your body in ways you may not notice, so take some time to be mindful of what's going on physically. Are you taking a lot of sick days? Sleeping poorly? Gaining or losing weight without meaning to? Drinking too much in an effort to unwind? Be honest with yourself about how your work may be affecting your body. No job is worth your health.

4. You're Overqualified and/or There's no Opportunity to Advance

In some circumstances, you'll have to take a job for which you're overqualified. But if a year or two goes by and you're still answering password reset tickets while your [cybersecurity certifications](#) are gathering dust, consider looking for a role that's a better fit. Conversely, even if your current position was a match for your skills at the start, but you haven't been given any opportunity to increase your skills and advance your career, or perhaps you've been passed up for a promotion you worked for — those are signs that it's time to [polish up your IT resume](#) and [get ready to move on](#).

5. You Lack Work-Life Balance

If you don't see your kids during your work week because of your late hours, your relationships are suffering, you don't have time to work out, or you can't remember the last time you were able to make it out to the ballpark due to your job stress, it's time to start thinking about looking elsewhere. To be fair, work-life balance can be tricky to achieve, sometimes even in a job you love. But if your current role makes it impossible, consider the options of moving organizations for a new 9-5 role, or even branching out on your own to freelance or consult for a more flexible gig.

6. Your Company is Going Downhill

While the IT industry may have a high turnover rate for some understandable reasons, is the turnover level in your own company shockingly high? Are there constant re-organizations and restructurings? Does the strategic direction seem murky at best? These may be signs that your company is going downhill. And that is a sign that it may be time to leave your IT job. If you see signs that the company is failing or you don't trust the senior leadership, it's time to look elsewhere. You don't have to go down with the sinking ship.

Deciding to leave your current role can be scary. Even if you recognize and accept the signs that it's time to leave your IT job, that still means stepping outside of your comfort zone. [Job searching](#), [interviewing](#), and [starting a new gig](#) all bring challenges, but also rewards.

If these six signs speak to you, you know what it's time to do. Happy hunting!

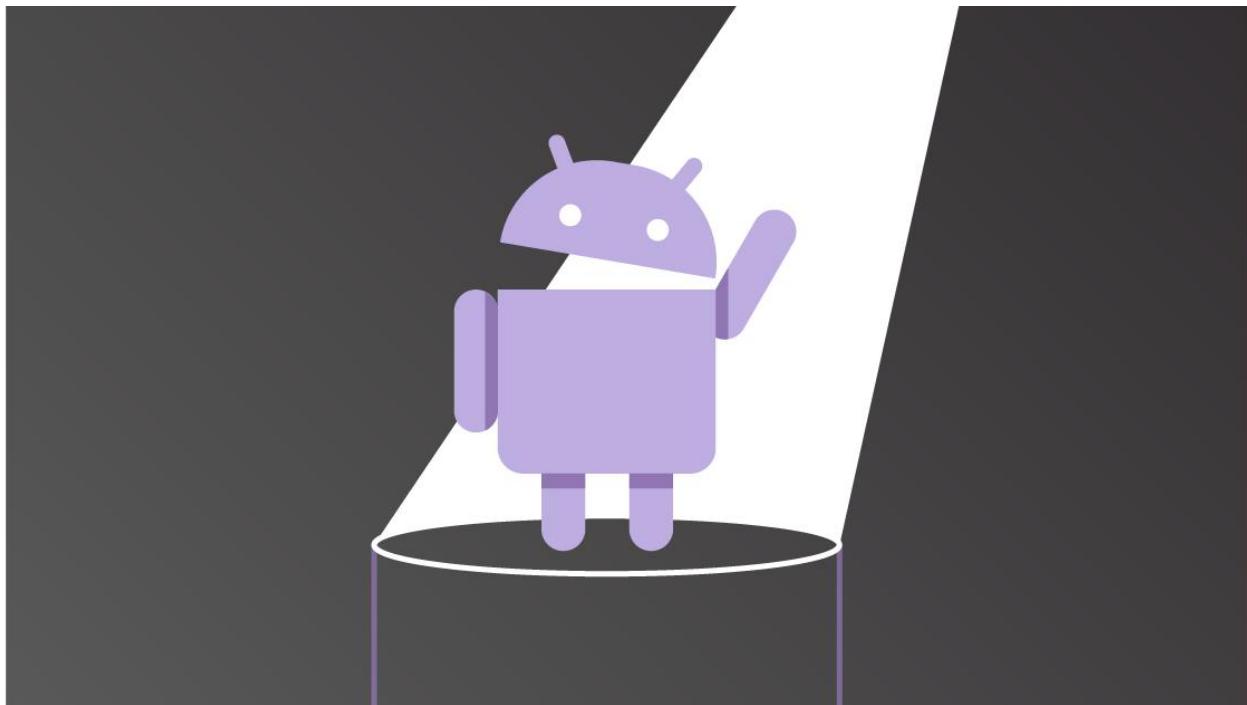
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Open Source's Greatest Gift: Android

January 4, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



Do you have an iPhone or an Android?

We always found that question to be a little strange. Shouldn't it be, "Does your phone run iOS or Android?" Or perhaps, "Do you have an iPhone or an HTC?"

If you're familiar with mobile technology, you know that Android is much more than just shorthand for your HTC phone.

In fact, Android is one of the most successful and influential technologies to come out of the [open source](#) movement. An operating system with open source code released by Google, it's popular with tech companies, developers, and enthusiasts alike for its features — as well as the vibrant community around it.

Let's take a look at why Android was originally developed, how it rose to prominence, and what's next for this revolutionary open source tech.

Android's Humble Beginnings

In late 2007, a group of companies made an auspicious [announcement](#):

A broad alliance of leading technology and wireless companies today joined forces to announce the development of Android, the first truly open and comprehensive platform for mobile devices. Google Inc., T-Mobile, HTC, Qualcomm, Motorola and others have collaborated on the development of Android through the Open Handset Alliance, a multinational alliance of technology and mobile industry leaders.

Two years prior, Google quietly purchased Android, Inc., amid continuing speculation about their plans to enter the mobile communications market.

On the day of the announcement in November 2007, Android's Linux kernel-based mobile platform debuted, "under one of the most progressive, developer-friendly open-source licenses." Nearly a year later, T-Mobile released the HTC Dream, the first commercial smartphone to run Android.

The past eight years, Android has run on numerous popular devices and products, from Nexus tablets to Sony smartwatches. Many companies have since customized Android to run on their own hardware, like Amazon's Kindle Fire. While the initial reception was skeptical, Android has grown to become the most widely used smartphone operating system and the de facto OS for companies launching new mobile hardware.

Android's Increasing Popularity

Android's tremendous success begins with its very nature.

While the average "iPhone or Android?" type user may not see the value in it, developers and tech enthusiasts laud the operating system for its groundbreaking openness. Google makes all of Android's source code publicly available and provides [developer support resources](#). Meanwhile, there are community-developed releases and resources abound at the [Android Open Source Project](#).

Developers can use a comprehensive set of tools with [Android's software development kit](#), and a customized firmware is also available from the community. Many Android apps themselves are open-source. The developer-friendly [Google Play Store](#) hit a milestone of one million apps in 2013.

By contrast, Apple's proprietary operating system (iOS) is pretty much entirely closed-source. Developers cannot access the source code, but can create and distribute apps on the App Store — for an [annual fee](#). The submission and testing process for the App Store is rigorous and apps often are rejected.

Flexibility in regards to third-party apps also increases Android's popularity among developers and users. While the Google Play store guarantees that apps comply with requirements and licensing, users also can access third-party marketplaces, a possibility not offered on other mobile platforms such as iOS.

According to Google, Android powers hundreds of millions of mobile devices in more than [190 countries](#). Many of Android's features are familiar and accessible to the average user, including:

- touch-screen swiping, tapping, and pinching
- a device status bar at the top of the screen
- native and third-party apps.

These user-friendly features are not solely attributed to Android, but do contribute to its widespread usage, along with the variety and affordability of Android-powered devices.

Android devices do boast some slick, unique features that can be tied back to open source origins, such as custom launchers, advanced multi-tasking apps, and custom ROMs. Other mobile platforms like iOS have begun to implement some of these, but have yet to catch up to Android.

In 2009, [AppleInsider reported](#) that Android had "only managed to leave its brand" on 2.8% of devices in the smartphone market. By 2013, Android was in first place in all regions except Japan, [as reported by CNET](#).

That rapid growth speaks to Android's openness, accessibility, and scalability.

What's Next for Android?

While Android's growth and reception has been largely positive, it has seen its share of issues.

Its customization potential has been considered problematic for Google, as non-Google apps and services using Android continue to proliferate, prompting Google to create requirements like an Android logo on the boot screen of devices using the OS.

Variation and customization also leads to fragmentation, which makes it difficult to develop applications that work across the entire platform. Issues with third-party proliferation and fragmentation are worth keeping an eye on, but the benefits of Android seem to outweigh the potential downsides for now.

So what's next? New releases will continue at the customary fast clip — with [7.0 Nougat](#) recently released in August. We're already at 7.1.1. The Android Beta program will continue to give developers and enthusiasts a chance to try out releases before the general public.

As the IoT ecosystem grows, Android will carve out its niche with applications on smart home devices and other products. While Android @Home failed to launch in 2011, the voice-activated speaker Google Home is a sign of things to come. Wearable devices, Android Auto, and TV are also areas of opportunity for Android.

No matter where Android goes in the years to come, or your own level of involvement with the platform, the platform has been unquestionably one of the greatest gifts from the open source world.

Explore our entire [open source training library](#) today.

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Glass Half Full or Half Empty? Why Optimism Matters

November 10, 2017 | [Everything CBTN](#) - By [Team Nuggets](#)



Scrum Masters are true experts when it comes to balancing responsibilities, including tight deadlines, unexpected setbacks, and team members with diverse needs and abilities.

In order to succeed while playing this balancing act, Scrum Masters should embrace an attitude of optimism. While that may be easier said than done, it's certainly possible. Here's how and why to practice positivity as a Scrum Master.

Great Scrum Masters Create a Positive Environment

Many Agile organizations describe the Scrum Master role as a "servant leader." You [aren't a project manager](#), but rather work on an equal playing field with the other individuals on your team. You act more like a coach, helping your team to make realistic goals, working to remove obstacles to those goals, and holding them accountable for achieving them.

In this job function, the Scrum Master is in the position to provide many benefits to the members of the team. One key benefit can be the positive environment fostered by the Scrum Master's servant leadership style. Emotions can be infectious, so by demonstrating positivity, adaptability, and confidence, the rest of your team is more likely to feel that way, too.

It's impossible to avoid challenges at work, much less life. By being optimistic, individuals are able to power through adversity without becoming too bogged down by it and move on to the next challenge without carrying too much baggage from the last setback. This is a crucial skill for Agile teams, who must work quickly and roll with the punches. By setting an optimistic example, you can help your team become more resilient.

Each Day is an Opportunity to Practice

As a Scrum Master, your role by definition includes frequent opportunities for assessment. From the sprint planning meeting to the daily standup, you're constantly at the forefront of the effort to answer key questions for your team: "How did we do, and what will we do next?" Your team also will likely be answering a reflective question like, "What obstacles are impeding your progress?"

While focusing on obstacles may seem inherently pessimistic, it's actually the perfect opportunity for optimism. Rather than using the question as a launchpad for complaining, you as the Scrum Master can change the dynamic by encouraging the team to see the question as something more like, "What obstacles am I going to overcome as I make progress?" This shift sets an optimistic tone, and framing other assessment questions in such a way means that every day is an opportunity for everyone on the team to practice optimism.

Optimism Doesn't Mean Abandoning Realism

Unrealistic optimism can lead to burnout. Why? Well, naive optimism or wishful thinking by a Scrum Master can lead to creating impractical expectations and too much work crammed into sprints. If work is constantly spilling over from one sprint to the next, your team isn't truly benefitting from the Agile structure and doesn't get the satisfaction of sprint completion. Alternatively, if your team is working overtime to get everything done, and can't recover between sprints, a negative environment will quickly develop.

Being truly optimistic means [being realistic with just the right balance](#) of aspiration and ambition. Making challenging but achievable goals for your team allows everyone involved to benefit from the hard work and satisfaction of a job well done.

Optimism in the workplace helps teams overcome challenges and boosts productivity and morale. It's clear why a glass-half-full attitude is perfect for a Scrum Master, whose very responsibilities include those results of optimism.

Ready to become an optimistic Scrum Master? You'll learn everything you need to know in our [Scrum Essentials](#) and our [Soft Skills for ScrumMasters](#) courses.

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