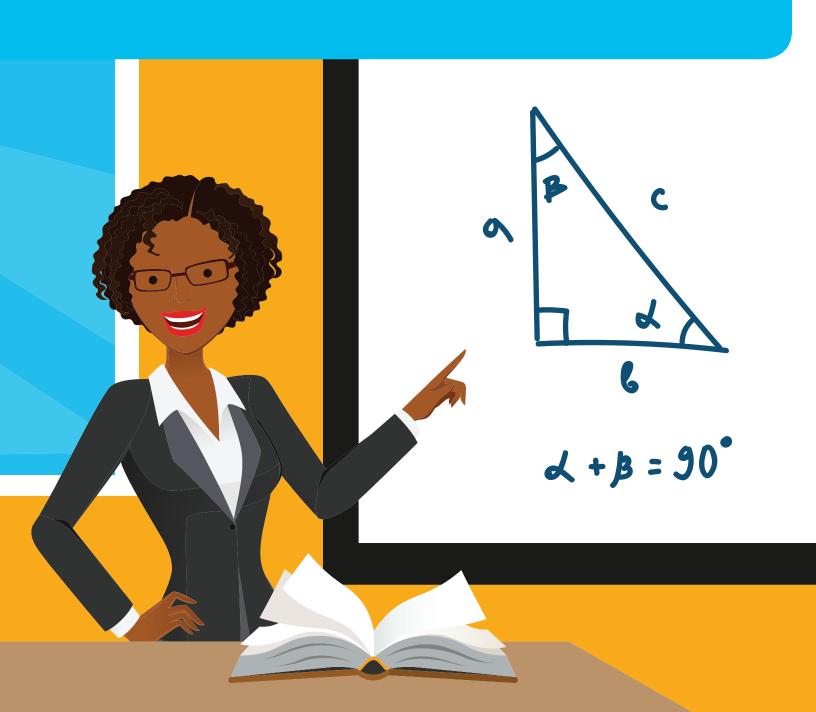
cisco.

Why Cisco for Education?

A long history and commitment to education.





Education is Cisco's past, present, and future

High-tech industry lore is rife with tales of giants that began in garages or basements, and in this world. Cisco stands out, a leading company started more than thirty years ago on a college campus. At Stanford University, computer scientists Len Bosack and Sandy Lerner, working from different buildings, were looking for an interesting and convenient way to "talk" to one another throughout the workday; the married duo ran network cables between their respective campus buildings and then developed a secure multiprotocol router to facilitate communication across disparate local area protocols. From this, Cisco was born.

Today, these roots in education support an ongoing commitment to learning and innovation that is central to Cisco's culture. The company invests in programs that range from STEM initiatives in middle and high schools to cuttingedge research in institutions of higher education. Cisco engages with the developer community, including those on college and university campuses, to drive hundreds of technology projects. For twenty years, Cisco's Networking Academy has offered opportunities for IT career education to six million students in more than 180 countries.

Cisco's commitment to education transcends our corporatesponsored endeavors. It saturates our culture and inspires our employees with a love of teaching and learning. All Cisco employees have the opportunity to act as ambassadors in their own communities, and Cisco supports the volunteer efforts of many of these employees at local schools and community programs that benefit learners of all ages.

Of course, we also lead the way in providing schools, colleges, and universities with pedagogically-aligned solutions to create completely integrated, secure digital environments with our Cisco Digital Education Platform. Educators and students can teach and learn in new ways, in new places, and with connections to new resources. extending the walls of the traditional classroom to an exciting worldwide community of learning.

In FY17, Cisco employees volunteered more than 358,000 hours, a 64-percent increase over FY16. Employee donations and matching for donations and volunteer hours in FY17 amounted to over US\$15.2 for nonprofit organizations and U.S. schools.

An education practice led by educators

Cisco's Education Practice is led by a team with a proud history in education. This team has a passion for developing, offering, and using technology to help other educators, schools, colleges, and universities expand their reach, foster engagement and learning, and improve student outcomes. This cadre of innovators is made up of former educators and administrators with decades of experience on the front lines of education, as well as current educators and administrators in both K-12 and higher education settings who continue their work with students and then share their experiences with Cisco and other Cisco customers. The educators in Cisco's Education Practice offer a unique understanding of the opportunities and challenges education customers face and ensure an honest, realistic dialogue about Cisco technology and how it is helping to transform education.





A Cisco core value: Volunteer to make a meaningful difference

Cisco doesn't go it alone. Our more than 70,000 employees are empowered to make a difference in their own communities. By 2020, Cisco hopes to achieve 80 percent employee engagement in giving of time, money, and expertise.

Employee engagements in schools, colleges, and universities worldwide, as well as in community groups dedicated to learners of all ages, is having an impact. In 2016, nearly 3000 Cisco employees donated a combined US\$1.55 million to schools, colleges, and universities, and more than 1000 Cisco employees spent almost 20,000 hours volunteering at educational institutions important to them. Cisco supports employees' efforts with paid time to volunteer through our Time2Give program, matching funds for employee contributions, and more.

A case in point: the partnership between Chicago-based Cisco employees and City Colleges of Chicago in the Early College STEM Schools initiative at Michele Clark Academic Preparatory High School. For nearly five years, Cisco employees have spent time on the campus, where 99 percent of students are low income, teaching after-school courses and engaging in the school's STEM lab. Michele Clark is designated as a Cisco Networking Academy, so employees also teach students how to build, operate, and maintain computer networks. For every hour volunteered, the Cisco foundation donates \$10, up to \$1000 per employee.

Cisco's Education Practice is led by a team that has a proud history in education and a passion for developing, offering, and using technology to help other educators, schools, colleges, and

Investments in education expand opportunity worldwide

To help educate future STEM workers, Cisco collaborates with nonprofit organizations and social enterprises around the globe. For example, Cisco's new Global Problem Solver Challenge recognizes teams of post-secondary students and recent graduates whose ideas use the Internet of Things (IoT) and digitization to create breakthrough technologies, products, and services that drive economic development, solve social and environmental problems, and promote inclusion. Cisco helps these entrepreneurs move their solutions to the next level as they focus on solving pressing problems in our community and around the world. The first annual GPS Challenge began with more than 1100 registrants from more than 450 schools around the globe.

Global Problem Solvers: The Series introduces middle-school students to the skills they need to succeed in an increasingly digital world: complex problem solving, critical thinking, creativity, people management, and coordinating with others. Students focus on social, economic, and environmental problems around the world, such as lack of access to clean water, food, and education. They learn that coming up with an idea is just the first step in problem solving—solutions need to be designed, manufactured, deployed, maintained and paid for. By approaching social change as an entrepreneur, and applying technology to accelerate the difference they can make, students learn to find solutions that are scalable and sustainable.

Cisco also supports CyberPatriot, the U.S.'s premier national youth-cyber-defense competition. Sponsored by the U.S. Air Force Association, CyberPatriot challenges teams of high school and middle school students with identifying cybersecurity vulnerabilities in a range of scenarios. Teams compete in state and regional events for a chance to take part in the national finals, where they earn recognition and valuable scholarships. Participants build leadership and teamwork skills; gain hands-on experience in creative and analytical problem solving, computing and networking principles, and foundational cybersecurity guidelines; and recognize the value of STEM academic disciplines as they consider future career paths.



The 2018 CyberPatriot champions—North Hollywood (California) High School Team Togo—entered the competition in the fall as one of more than 5500 teams from across the U.S. and earned a spot as one of the top teams in the finals. One of three teams from the L.A. high school to reach the finals, North Hollywood High Team Togo was also this year's Cisco Networking Champion. The Cisco Networking

Challenge component of CyberPatriot is based on Cisco's Networking Academy curriculum, and many CyberPatriot coaches are also Networking Academy instructors or graduates. Similarly, CyberPatriot competitors often attend Cisco Networking Academies to develop their skills and prepare for careers in this high-demand field.

Cisco has also worked with MIND Research Institute, a neuroscience and education social impact organization that is dedicated to ensuring that all students are mathematically equipped to solve the world's most challenging problems. Cisco helped MIND launch a web-based version of its ST Math program for elementary and middle schools. ST Math has been shown to double or triple schools' growth rates in math proficiency.

Cisco partners with the iSchool Initiative, which is engaged in eight countries, 42 states, and with more than 250,000 educators to help implement mobile learning worldwide.

Generation Yes ("GenYES") is a technology support program that prepares teams of students to support K-12 teachers and IT staff as they integrate technology to improve student learning. GenYES has developed the necessary support strategies, online tools, curriculum, and data, which have provided more than 2100 K-12 schools with the foundation to realize their technology integration goals. Cisco recently partnered with GenYES on a project in Yuma, Arizona, where more than 1000 students were trained as Student Technology Leaders. In FY17, the program reached more than 70,000 people.

To further drive change in education, Cisco partners with the iSchool's vision is to revolutionize the education system and promote a culture of mobile learning through technology. They enable this culture by teaching with iSchool bus tours, community and district awareness seminars, hands-on student and faculty training, and step-by-step technology roadmap planning. Today, iSchool has engaged in eight countries, 42 states, and with more than 250,000 educators to help implement mobile learning worldwide. Cisco is building the reliable, secure network infrastructure needed to facilitate the "mobile learning culture."

In 2006, Cisco began supporting War Child with product grants to improve reachability and communications. War Child is an international nonprofit organization that provides programs in education, psychosocial support, and protection for more than 260,000 vulnerable and underserved children and youths in conflict-affected areas, including in Afghanistan, Burundi, Colombia, Democratic Republic of Congo, Lebanon, Occupied Palestinian Territory, South Sudan, Sri Lanka, Sudan, Syria, and Uganda. In 2013, Cisco awarded a series of cash grants to support the Connect.

Teaching program in South Sudan, an initiative that improves children's learning through a tablet-based professional development program for teachers. Just three years later, the project involves 150 teachers and more than 4500 students.

Cisco is also supporting the Can't Wait to Learn program, a unique technology model delivering quality education to children that strengthens in-country education systems. building off of a successful proof of concept in Sudan and replicating it in Jordan and Lebanon. The program was selected by DFID, UNICEF, and UNHCR to join the Humanitarian Education Accelerator. In the next two years. the Humanitarian Education Accelerator will help War Child improve how they measure, evaluate, and scale their impact. They are aiming to reach 65,000 children in four to five states by end of 2020.

Professional development to connect and empower innovative educators

Teachers are experts on student learning—and often, they're also technology innovators. Cisco Connected Educator is a professional development program that recognizes educators' innovative use of technology in the classroom. It connects teachers with high-quality collaboration tools and creates a virtual community of teacher leaders who share resources and connections as they expand the digital boundaries of learning.

Cisco Connected Educator badges recognize the accomplishments of educators who demonstrate their ability to use Cisco video and collaboration technologies for better teaching and learning, content creation, and administrative management.

Partnering with higher education to drive innovation

Through the Cisco Research and Advanced Development Team, Cisco Advanced Security Research Team, and Cisco Research Center. Cisco fosters connections with university researchers. At institutions like Virginia Tech, Wake Forest University, and the University of California

Berkeley in the U.S.; Vrije Universiteit Amsterdam in the Netherlands; Inria in France; and the Indian Statistical Institute in India; faculty and students take advantage of Cisco awards-and often the engagement of Cisco engineers-to help support their research efforts. Plus, as a result of these interactions, students are frequently able to identify and secure internships and full-time employment opportunities. Cisco has invested more than \$3M in cybersecurity research efforts alone

Supporting application development to foster entrepreneurship and new solution development

Cisco's Developer Program, **DevNet**, equips application developers on college and university campuses with the tools they need to design their own approaches for controlling and automating Cisco and third-party physical and virtual computing environments. DevNet offers an ideal way for researchers, educators, and students to engage with Cisco on technology projects. The result: Ciscoenabled applications that can be sold to Cisco customers, as well as Cisco APIs that can enhance or manage an existing Cisco technology.



Cisco collaborates with the world's largest student startup competition—the Rice Business Plan Competition—to encourage technological innovation that benefits social and environmental issues. The Cisco Innovation Challenge aims to recognize, promote, and accelerate the adoption of breakthrough technologies, products, and services that will capture value and benefit society. Prizes, including a US\$100,000 first prize, directly support student entrepreneurs who are developing technology-based businesses that capture the value of digitization.

Cisco Networking Academy includes thousands of academies in more than 180 countries and engages more than 1.3 million students each year.

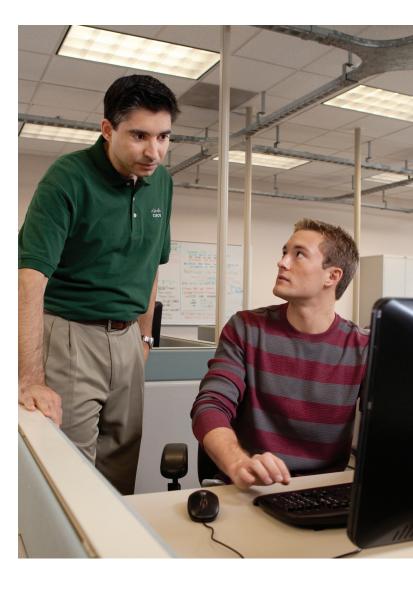
Cisco NetSpace and Networking Academy equip the workforce for the future

According to research developed by IDC for Cisco, network-powered innovation is increasing the demand for trained information and communications technology (ICT) professionals, yet limited access to the educational opportunities that build ICT skills is creating a persistent and growing technology skills gap. Around the world, demand for highly trained ICT workers is outpacing supply.

In steps Cisco, Cisco NetSpace and Cisco Networking Academy. NetSpace provides a robust, feature-rich and dynamic environment that enables social communities, subject matter experts, students, educators, customers and partners to connect, collaborate, and innovate together. By leveraging all aspects of cloud computing, NetSpace supports the development of valuable career skills such as problem solving, communications, and collaboration.

Cisco Networking Academy-which includes thousands of academies in more than 180 countries and engages more than 1.3 million students each year-uses the NetSpace platform to help drive ICT skills education. Networking Academy teaches students how to design, build, manage, and secure computer networks, supporting the educational needs of local communities and preparing students for careers that are in worldwide demand.

Networking Academy programs have a presence in key areas of Europe, Latin America, Asia, Africa, and the Middle East, and many deliver courses tailored to underserved, disadvantaged, and disabled students. Courses are delivered in 19 languages. In India, for example, the "NetAcad Without Borders" (NWB) program delivers braille-based Networking



Academy courses to the visually impaired. A similar program in Kenya delivers courses to hearing-impaired individuals. and there is a facility in Ukraine devoted to teaching orphans.

Networking Academy is Cisco's longest-running corporate social responsibility program and is supported worldwide by public-private partnerships with educational institutions, nonprofits, non-governmental organizations (NGOs), government agencies, and community centers.

In 2017, US\$100,000 first prize in Cisco's inaugural Global Problem Solver Challenge was awarded to Project Vive from Pennsylvania State University. Project Vive is dedicated to making affordable technology available to those with disabilities.

Building solutions for education—the Cisco Digital Education Platform

Cisco's commitment to forward-thinking education sets the standard for tomorrow's workforce.

Cisco's Digital Education Platform integrates education solutions, services, and partner capabilities to connect classrooms and learning spaces across campuses, schools, and districts, creating secure virtual classrooms, simplifying IT management and supporting and enhancing cybersecurity to improve the student, educator, and administrator experience. This platform is comprised of a secure core network, high-performance compute infrastructure, unified voice, state-of-the-art wireless and comprehensive security—and incorporates collaboration, video, and virtualization—to enable schools, colleges, and universities to meet their most critical business requirement: ensuring that their students have the resources needed to gain the knowledge and skills demanded by today's employers. With Cisco, schools, colleges, and universities can leverage proven best practices built through work with institutions and educators around the world to accelerate implementations, lower total costs of ownership, and reduce risk.

Ensure successful implementation and ongoing operation, enhance efforts to facilitate adoption, and protect data and meet security compliance requirements with the help of **Cisco Services**. As an extension of an institution's team, we complement the resources already in place, making it possible for schools to translate technology into student success. Institutions can help pay for the advancements that facilitate learning with a range of programs from **Cisco Capital**, which enable schools, colleges, and universities to take advantage of innovations today and shift priorities from capital expenditures to operational budgets. Cisco can also help customers identify local or regional funding opportunities through grants and bonds to expand their potential for investment.

The "world" beyond education

Cisco CEO Chuck Robbins has said, "I truly believe that we are at our best when we combine our business strength with our desire to do good things in the world." While Cisco has a long history in education and a commitment to expanding educational opportunities around the globe, we understand that equal access to educational opportunities can be hampered by very serious issues like civil war, a crumbling infrastructure and limited access to clean water. Cisco is equally focused on supporting other global social and environmental initiatives. In fact, in 2016, Cisco committed to positively impact the lives of one billion people by 2025. Here are just a few examples:



In October 2015, Cisco launched its first "Lighthouse City" in Washington, D.C. As this effort comes to life over the next few years, it will illustrate how transformative technology can be in the lives of so many. The smart city infrastructure Cisco is building—from smart streetlights and parking to water monitors—will make sustainable lifestyles more achievable for thousands of people.

In the Middle East and Europe, Cisco leverages core competencies to help refugees: encouraging and matching the generosity of employees to provide financial support to NGOs; donating Cisco equipment to establish Wi-Fi hotspots and connectivity for refugees; providing volunteer time and inkind technical support; and awarding cash grants to strategic nonprofit partners to provide Internet-based information and coordination services to refugees and NGOs on the ground.

In 2010, Cisco partnered for the first time with Water for People, helping the organization reach its ambitious goal of securing permanent access to safe drinking water for 30 districts in nine countries by 2018. Cisco supported the development of a mobile-based application called Field Level Operations Watch (FLOW), which enables collection and analysis of water-related data via mobile phones and webbased dashboards. Now managed by the Akvo Foundation, a nonprofit that builds open-source software applications for aid organizations, FLOW is used by more than 258 organizations in more than 40 countries, often in remote communities lacking reliable basic infrastructure. FLOW gives organizations data that helps them make timely and informed decisions that lead to secure, sustainable development; the software impacted nearly 11 million people in 2016.

To learn more about Cisco's efforts to accelerate global problem solving, read the <u>Cisco Corporate Social</u>
Responsibility 2017 Report.

Discover how two school districts— Shawnee Mission and Troy City Schools are transforming teaching and learning with virtual field trips, online collaboration between teachers, students, and parents, and more.

Cisco is an education company

Learning and innovation are core to Cisco's culture. Cisco is committed to ensuring success for today's schools, colleges, and universities:

- Helping administrators meet their education mission while supporting the "business" of education, enabling increased efficiency in faculty development and expanded connections among staff;
- Providing administrators with technology and resources to help enhance safety and security on campus and online;
- · Providing educators with the resources they need to deliver compelling, relevant learning experiences to their students and opening the door to the world beyond classroom walls;
- · Enabling all students, regardless of where they are, to access the tools, technologies, and flexible learning environments they need to thrive.

The reason is simple: when education can span walls and worlds, can be powerful and engaging, and students can truly "learn without limits," we all win.

The Cisco Digital Education Platform implemented, operated, and secured with support from Cisco Services—enables educators and students to teach and learn connections to new resources, extending the walls of the traditional classroom to an exciting worldwide community of learning.

Get Started Today!

Click to learn more about the Cisco solutions that are helping K-12 schools, colleges and universities reimagine education.



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