Workforce Transformation Playbook
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Companies are continually faced with the challenge of reskilling their workforce to keep up with changes in technology and remain competitive.

It's been shown that hiring an employee outside one's company costs six times more than reskilling someone within the enterprise.

Amazon announced a $700 million fund to reskill 100,000 workers. Orange, the French telecoms giant, announced an investment of $1.5 billion for a similar initiative. And PwC, the global professional services firm, tops those with an investment pledge of $3 billion.

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The Goal: The right skills for the right roles

• Every role within IT has a set of essential skills and knowledge that your engineers must possess if they’re to be successful.

• The reality is that this list of skills and knowledge is changing all the time; for example, what it means to be a network engineer today is very different from how it would have been ten or even five years ago.

• For Cisco®, skill sets are constantly evolving; for example, today’s network engineers must know scripting and programmability and be much more versed in security.

• Your top priority is to make sure your teams keep pace with the evolution of skills required in their roles.

• But there’s a second scenario where reskilling is needed—when people move between roles. Every IT organization (in fact, every department generally) has a set of skills and roles in decline and a set that is in demand. Using your skill profiles, you should strive to match up those people who are in declining roles against their most suitable open requisitions. You can then get them ready to make the transition to that new role, where they can start adding more value to the organization.

• In most cases, reskilling is less costly than turning to the outside market to hire a new specialist, certainly in terms of salary and recruitment fee, but also in terms of the cost of onboarding, transferring organizational tacit knowledge, and process familiarity. Your existing people may lack certain new skills and capabilities, but they likely have a lot of what you need to give you a head start.
Cisco’s approach and recent experience

We recognized that one area of critical importance was moving in the direction of dynamic programmable networks and automation/software skills.

Cisco® has a history of investing in our workforce, as our teams are our competitive edge. This includes continual learning for all roles, and when appropriate, complete reskilling to accommodate shifts in the landscape.

The model for transformation must also be adaptable when considering issues such as access, speed, scale, and measures for success.
Cisco’s career and learning philosophy

Cisco® Commitment to Employees
• Offer varied learning experiences
• Invest in everyone’s development
• Provide meaningful work to grow
• Create a supportive learning environment

Cisco Expectations of Employees
• Adopt a continuous learning mindset
• Own your learning and career development
• Seek out new opportunities
• Bring your best self to learn
Cisco’s model for learning: Use the three Es (plus a fourth) for effective skills development

Training is not the only way to help your talent gain new skills. At Cisco® we follow the well-established Three E model, which emphasizes learning by doing (experience), learning from others (exposure), and formal learning (education). We also consider a fourth E, environment.

- **Experience** part of the model, we encourage on-the-job learning in several ways, including departmental rotations and stretch assignments. These put an employee into a team in which they’re exposed to new activities for a few months—potentially even in functions outside IT, where they can learn soft skills to develop a broader understanding of how the business works.

- **Exposure** to new skills is a very important tool in skills development, particularly in an organization where new roles and talent are being injected into the team on a regular basis. As the talent mix of your organization evolves—for example, as new graduates join, or as people switch departments—you have a huge opportunity to foster cross-pollination of skills and knowledge.

- **Education** part involves a buddy system whereby individuals from very different backgrounds are matched to learn equally from each other. This method pairs with Cisco-created training materials and the familiar mentoring and shadowing models. For example, at Cisco a newly-qualified network engineer learns a lot about network design and implementation from someone who has been doing that for years. Meanwhile the experienced network engineer learns about software programming from the new graduate.

- Our added fourth E, **Environment**, helps ensure teams have the space and time to learn as well as opportunities to put that learning into practice.
Enablement must evolve as learning expectations change

66% of Cisco®-certified professionals prefer self-paced eLearning for training.

87% of millennials rate professional or career growth and development opportunities as important to them in a job.
Cisco’s method for internal skills transformation

**Agility:** When upskilling individuals, you cannot delay or waylay transformation; the process must be swift to retain the competitive edge and limit disruption of the workforce.

**Scale:** When establishing a transformation plan, you must prepare it to support the needs of a single individual as well as a team of thousands, all of whom may be on different learning timelines in different global communities.

**Mindshare:** The reasons (as well as the goals) behind the skill transformation itself must be articulated to gain leadership and ownership as well as individual learner buy-in. This is the most critical element of a successful transformation.

**Measurement:** You must determine a goal or a key performance indicator (KPI) associated with the transformation, a certification or badge, for example, to gauge success.

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**The Challenge**

**Cisco’s Experience**

**Cisco’s Method**

**Recent Use Case: Software Skills**

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1. **Strong Leadership**
   **Commitment/Ownership**

2. **Set audacious goals**
   - 40% of all delivery engineers will achieve DevNet Associate Certification by end of the fiscal year.
   - That was the baseline goal; some groups went as high as 60% and some to 100% certification.

3. **Rallied the troops.** Talked about this at every meeting. Offered prizes, drove motivation. The key was engagement on both sides of the value chain, from the leaders expressing interest and even participating in “Beat the Boss” challenges and special prizes to celebrations for successful learners and early adopters.

4. **Those who know must help to teach those who don’t know.** The key is to constantly cycle SMEs to avoid burnout; as new individuals would become certified, they would be drafted as new SME candidates to teach the next cohort.

5. **Reporting at Exec VP level with monthly updates about the numbers who have completed the training.** Leaders were held responsible for their reports who participated. Accountability was key at all levels:
   - Exec VPs sponsoring the program
   - Managers encouraging their teams
   - Individual learners in the cohort
The franchise model for skill transformation
Cisco embarked on a journey to create a Franchise Model for skill transformation, an infrastructure that different global groups could leverage and thus effectively scale leadership and training.

Certification Champions within teams/departments
Team members
VP/Director
VP/Director
VP/Director (Exec Sponsor)
Champion of Champions

Scalable engagement and enablement model that supports current and future cert needs
Region and Centers
• Announces, launches, and drives program regionally
• Assigns resources: SMEs, program leads, and PMs
• Creates and supports regional/center SharePoint
• Manages weekly exam-prep study groups
• Builds user support

CX - Infrastructure and 8-week structured exam-prep program
• Scalable enablement framework
• Training for SMEs and Champions
• Central program website
• Question escalation support
• Certification Community
• Metrics and reporting
Cisco’s tools and resources to support the franchise model for internal skill transformation
Use case: Reskilling with software skills

40% of all Cisco® CX delivery engineers (3,000 individuals across the globe) will achieve DevNet Associate Certification by the end of the fiscal year.
The reason: Software and automation skills are now essential for the success of our teams

### Business needs
- Business growth
- Cloud business models
- Speed and agility
- Customer experience and secure business applications
- Operational efficiency

### Technology needs
- Automation at scale
- Secure CI/CD pipelines
- Self-serve network operations
- Design, deploy, and manage distributed applications
- Multicloud deployments

### Workforce transformation
#### New job roles
- Network Automation Engineer
- DevSecOps Engineer
- Network Automation Developer
- IoT Architect
- Cloud Automation Engineer
The pathway: The DevNet certification program

- A first-of-its-kind at Cisco®, the **DevNet Certification Program** validates the skills of software developers, DevOps engineers, automation specialists, and other software professionals.

- The DevNet Associate, Professional, and Expert certifications point to key emerging technical skills for a new kind of IT professional, empowering organizations to embrace the potential of applications, automation, and infrastructure for the network, Internet of Things (IoT), DevOps, and Webex®.

- The certifications provide a perfect pathway for skills development and confirmation for the automation and programmability skills transformation.
Industry-wide skill prep using DevNet Certifications

Software Design and Development (Concept and Application)
- API/Software development kit (SDK) implementation
- Python
- Deployment (bare metal, VM, containers/microservices, serverless)
- Testing/Security

(Net)DevOps (Concept and Application)
- Version Control (Git)
- Continuous integration/continuous delivery (CI/CD)
- Virtualization
- Application Orchestration (Kubernetes)
- Multicloud

Domain Specific Tooling
- Ansible/Terraform/NSO
- Model Driven Programmability
How DevNet certification enables transformation

- Builds software skills and practices
- Speaks the language of software, automation, DevOps, and cloud
- Creates a culture of community learning and innovation
- Engages with customers in new ways... helps their transformation

**Outcome:** Business agility and new engagement with customers

- Automation practices
- Managed services
- Software applications
- Integrated solutions (Cisco® + Software + Service)
- Training and study groups

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Recent Use Case: Software Skills
The DevNet Associate Certification track was the obvious choice because it met the criteria for the reskilling effort: an entry pathway for individuals looking to build and validate automation, programmability, and software skills.

This industry-recognized program recommended that a candidate possess 1-2 years of experience in the automation and programmability space to pass the certification exam.

The question then became: How do we condense the training associated with the program into a plan that could quickly scale throughout thousands of individuals across the globe—several of whom are just starting in this space?

1 to 2 years experience with automating network infrastructure

Building software, automation, programmability skills

8-10 weeks

The Challenge

Cisco’s Method

Cisco’s Experience

Recent Use Case: Software Skills
The DevNet Associate Certification Guided Study Group is a 180-day external program of synchronous and asynchronous learning and support to prepare students for certification exams.

Students can participate in expert-led learning sessions, access self-paced e-learning on their own schedule, and receive personalized coaching from their instructor to prepare for the 200-901 DEVASC exam.

The program includes the following features:

- 12–week, step-by-step exam preparation
- Dedicated learning coach with regular designated office hours
- Weekly structured learning sessions
- A community of like-minded learners
- 180-day access to their Exam Review
- 1 Certification Exam voucher good for 180 days
## Adapting offer to an eight-week internal program

### Clear Training Pathways and Learning Options
- Single web page explaining the DevNet Certifications, the study plan, and tips on how to join
- Links to the DEVASC e-learning offer for internal staff as well as to advanced training for DevNet Professional and Specialist
- Links to relevant “Getting Started” content, hands-on learning labs, and sandboxes
- Access to practice exam questions
- Links to request exam voucher to take the exam when the program ends

### Regular Engagement to Inspire and Support Team Interest
- CX Org announcement on dates for program and study group sessions (start-end)
- Weekly one-hour structured Webex® learning sessions focused on DevNet Associate exam readiness
- SMEs from the individual CX orgs are trained by CX
- Sessions include reviews of the DevNet Associate exam blueprint and a deep dive into each exam knowledge domain
- Sessions include time for live Q&A from learners

### Building Community and Making SMEs and Mentors Accessible
- All participants are included in a WebEx Team space cohort
- SMEs and Mentors leverage existing DevNet Study Group instructor/advisor materials
- SMEs and Mentors are available for offline engagements via Webex Teams™ space, and live “office hour” sessions are available
- Dedicated Teams space is available for learners pursuing advanced DevNet certifications
- Certified individuals are celebrated in Teams space and encouraged to become future Study Group SMEs
Weekly sessions within eight-week program

Focus on DevNet Certs, review of e-learning, and exam voucher system
Focus on Knowledge Domain 2: Software Design and Development
Focus on Knowledge Domain 4: Automation and Infrastructure
Focus on Knowledge Domain 6: Networking Fundamentals

Session 1
Session 2
Session 3
Session 4
Session 5
Session 6
Session 7
Session 8
Exam Week

Focus on Knowledge Domain 1: Understanding and Using APIs (exam topics walkthrough)
Focus on Knowledge Domain 3: Application Security and Deployment
Focus on Knowledge Domain 5: Cisco Platforms and Products
Closing Session: Final tips and open Q&A

Advising employees to take exam this week
The result: Thousands certified and upskilled in 9 months

DevNet certified in Cisco CX delivery roles

Overall DevNet certified individuals in Cisco CX

Our 12-month Goal

Over 40% in 12 months

40%

2000+

12 months
Accelerate your transformation: DevNet Guided Study Groups

• 8-week, expert-led study group to prepare students, step by step, for the DevNet Associate certification exam

• 3 months of access to DevNet Associate Fundamentals course and Developing Applications and Automating Workflows using Cisco Core Platforms (DEVASC)

• 3 months of access to Cisco Exam Review: DevNet Associate

• 1 certification exam voucher

Learn more: https://www.cisco.com/go/studygroup
The bridge to possible