In 2013, Cisco completed a study targeted at understanding the value of Cisco certification for employers of Cisco certified professionals. Designed to measure employer perceptions about employees with Cisco certifications, the study specifically focused on how employers measure the value of Cisco certified individuals in their business. Given that more than two million Cisco certifications have been earned since the inception of its certification program, Cisco wished to quantify the value that networking professionals bring to organizations worldwide.

This white paper will share the findings from the Cisco study.

Scope and Structure of the Study

The study, which was conducted by an independent research firm, included a qualitative and a quantitative component. The qualitative component consisted of focus groups and in-depth interviews with U.S. hiring managers from enterprise IT organizations, Cisco partner organizations, and service provider companies, all of which utilized Cisco networking equipment in their infrastructure. Approximately 60 hiring managers and technology decision makers participated in this phase of the study.

For the second part of the study, a total of 202 networking managers completed a survey aimed at quantifying and extending the results of the qualitative portion. All managers in the survey came from companies with more than 500 employees, and had hiring and supervisory responsibility for both Cisco certified and noncertified individuals.

The 202 networking managers surveyed came primarily from the United States, Canada, and India, with other countries from throughout the world participating in smaller numbers.

As part of the survey, the 202 managers reported their level of agreement with the following value statements:

- Cisco certified staff are more valuable to my organization than noncertified staff.
- Cisco certified staff are more knowledgeable than noncertified staff.
- Cisco certified staff can take on more responsibilities than noncertified staff.

In addition, the managers were asked to compare Cisco certified employees with noncertified employees in a number of performance areas:

Speed:

- Completing network-related IT projects
- · Resolving technical problems
- Coming up to speed during onboarding

Effectiveness on the job:

- Completing network-related IT projects
- · Resolving technical problems

The networking managers were also asked to compare Cisco certified employees and noncertified employees with regard to various company performance metrics:

Network support costs

Network downtime

Ability to increase project load

External customer satisfaction

This white paper will investigate each of these survey topics in more detail while providing supporting information from the qualitative portion of the study where it is available.

Results of the Study Agreement with Basic Value Statements

The study reveals that a high number of the network managers perceive their Cisco certified employees as more valuable than noncertified employees because they have more knowledge about networking and troubleshooting:

- Almost 8 out of 10 of the managers "agree strongly" or "agree somewhat" that Cisco certified employees are more knowledgeable.
- More than two-thirds of the managers "agree strongly" or "agree somewhat" that Cisco certified employees can take on more responsibilities.
- Almost three-quarters "agree strongly" or "agree somewhat" that Cisco certified employees are more valuable than noncertified employees.



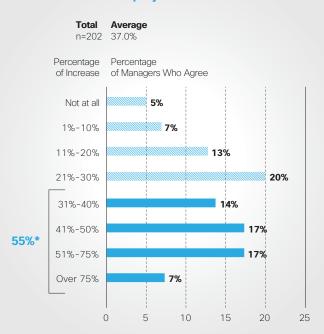
Employee Performance Metrics

Employers were asked to determine how much more impact a Cisco certified professional had in each area of employee performance. Results for each metric are explained below.

1. Speed in completing network-related IT projects:

The network managers in the survey indicated that Cisco certified employees complete network-related IT projects more guickly-55 percent said more than 30% faster.

Survey question: In your estimate, how much faster, if at all, are Cisco certified employees at completing network-related IT projects?



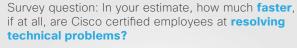
*Over 50 percent of the employers say their Cisco certified employees complete projects 31%-100% more quickly.

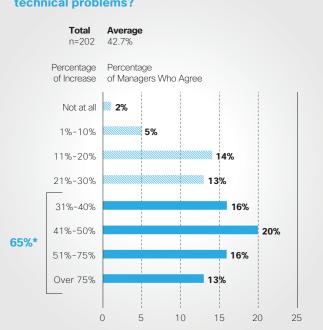
Managers in the qualitative part of the study indicated that, because Cisco certified staff members learn to approach networking tasks in a systematic way, they can immediately step in to manage a network that has been created by other Cisco certified staff. They share a common networking language and fundamental knowledge of networking. And, added the managers, Cisco certified staff members are

part of professional networks that help them get answers quickly. These are factors that can positively impact the speed of project completion.

2. Speed in resolving technical problems:

The network managers in the survey perceived Cisco certified employees as much quicker at resolving technical problems. Two-thirds rated their Cisco certified staff as performing more than 30% faster.





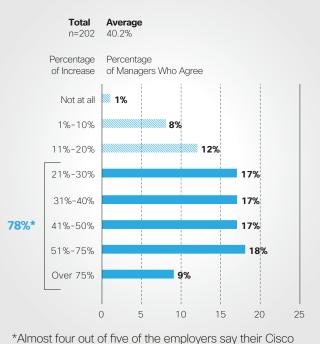
*Two-thirds of the employers say their Cisco certified employees resolve technical problems 31%-100% more quickly.

Managers in the qualitative part of the study indicated that Cisco certified employees have both a solid grounding in the fundamentals and a familiarity with unusual situations that allows them to "connect the dots" when problems come up, or even to anticipate problems before they happen.

3. Quickness in coming up to speed during onboarding:

A high percentage (78 percent) of network managers in the survey rated their Cisco certified staff as coming up to speed more than 20% faster.





Managers in the qualitative part of the study indicated that Cisco certified employees have a predictable set of basic networking skills that may contribute to quicker onboarding.

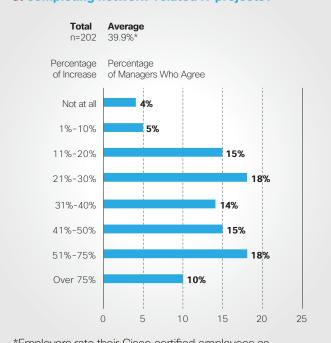
certified employees come up to speed 21%-100%

more quickly.

4. Effectiveness in completing network-related IT projects:

The network managers in the survey viewed Cisco certified employees as completing network-related projects more successfully-rating them as 40% more effective on average.

Survey question: In your estimate, how much more successful, if at all, are Cisco certified employees at completing network-related IT projects?



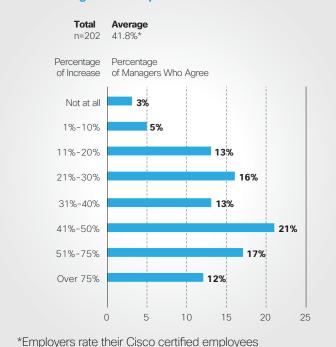
*Employers rate their Cisco certified employees as 40% more successful on average at completing IT projects.

Managers in the qualitative part of the study indicated that Cisco certified employees are serious about networking as a profession and are committed to staying up to date and thus can bring new, improved technology and solutions to the work environment. This ability and in-depth knowledge base can contribute to more successful project completion.

5. Effectiveness in resolving technical problems:

The network managers in the survey confirmed that their Cisco certified employees resolve technical problems more effectively-perceiving them as 42% more successful on average.

Survey question: In your estimate, how much more successful, if at all, are Cisco certified employees at resolving technical problems?



Managers in the qualitative part of the study indicated that Cisco certification processes teach a methodical approach to setting up and managing networks. The systematic approach likely contributes to certified employees' effectiveness in

as 42% more effective on average at resolving

technical problems.

resolving technical problems.

6. Employee performance metrics overall:

This chart presents the average score achieved for each employee performance metric, and shows that networking managers attributed, at the least, a 37%* average improvement rating for these metrics from Cisco certified employees.

Average Improvement on Job Performance Metrics

How muchare Cisco certified employees?	Total n=202
Faster at resolving technical problems	43%
More effective at resolving technical problems	42%
More successful at completing network-related IT projects	40%
Quicker at coming up to speed	40%
Faster at completing network-related IT projects	37%

^{*}Cisco certified employees score at least a 37% average improvement rating in all areas.

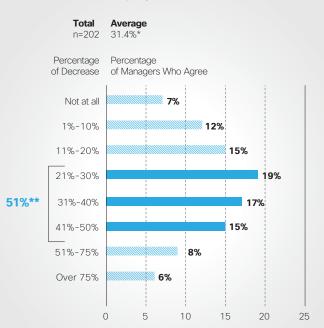
Company Performance Metrics

Employers were also asked to quantify the impact a Cisco certified professional had in each area of company performance. Results for each metric are explained below.

1. Network support costs:

Network managers in the survey stated that having Cisco certified employees on their staff has significantly reduced network support costs by an average of 31%-between 21% and 50% according to half of the managers.

Survey question: By about what percentage are network support costs reduced, if at all, by having Cisco certified employees on staff?

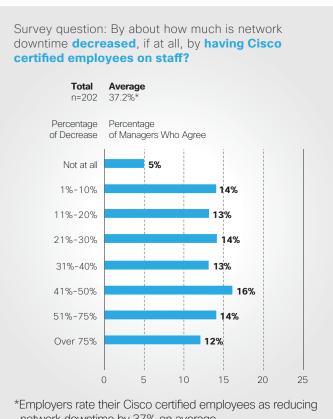


- *Employers rate their Cisco certified employees as reducing network support costs by 31% on average.
- **Half of the employers report a 21%-50% reduction in network support costs.

Managers in the qualitative part of the study indicated that having the necessary networking skills in-house means lower reliance on support alternatives that are more expensive and time-consuming.

2. Network downtime:

Network managers in the survey believed that Cisco certified employees reduce network downtime-by as much as 37% on average.

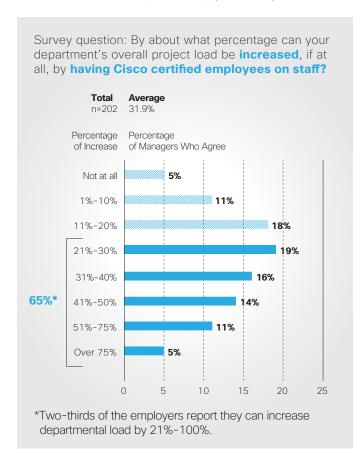


network downtime by 37% on average.

Managers in the qualitative part of the study indicated that Cisco certified employees are able to resolve issues quickly and efficiently, which translates to less network downtime.

3. Ability to increase project load:

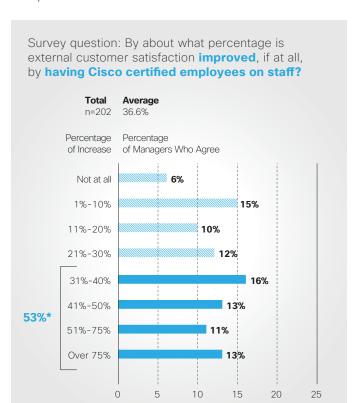
Network managers in the survey said that they can increase departmental project load as a result of having Cisco certified employees on staff-by more than 20% for twothirds of the managers. And 30 percent of the managers have increased the department project load by 40% or more.



Managers in the qualitative part of the study indicated that Cisco certified employees are able to resolve issues quickly and efficiently, which likely impacts the ability to take on more projects in the department.

4. External customer satisfaction:

Over half of the networking managers in the survey rated external customer satisfaction as being more than 30% improved as a result of Cisco certified staff.



*More than half of the employers say that external customer satisfaction is 31%-100% better.

5. Company performance metrics overall:

This chart presents the average score achieved for each company performance metric, and shows that networking managers attributed at least a 31%* average improvement to the metrics when Cisco certified professionals are employed.

Average Improvement on Company Improvement Metrics

How muchby having Cisco certified employees on staff?	Total n=202
Is network downtime decreased	37%
Is external customer satisfaction improved	37%
Is project load increased	32%
Are network support costs reduced	31%

^{*}Cisco certified employees score at least a 31% average improvement rating in all areas.

Summary of the Results

The research demonstrates that employers place high value upon Cisco certifications, with almost three-quarters concurring that their Cisco certified employees are more knowledgeable and more valuable than their noncertified employees. These employers view them to perform, on average, at least 37% better than noncertified employees in completing IT projects quickly and successfully, 42% better at resolving technical problems speedily and effectively, and 40% faster at coming up to speed during onboarding. And they perceive them to contribute, on average, to a 31% decrease in network support costs, a 37% reduction in network downtime and increase in external customer satisfaction, and a 32% increase in the project load of a department.

The qualitative part of this study (focus groups and in-depth interviews) lends further support to the survey results by stressing the importance of certifications in providing employees with strong troubleshooting skills to lessen downtime and lower support costs. Network managers also stressed that training in consistent, standardized processes results in a more elegantly designed, more stable network. The participants in this portion of the study agreed that individuals with Cisco certifications and training represent a known quantity, and, as such, it is easier to assess their skills during hiring and to predict their success on the job. The results of this research support the demand for Cisco certifications by both professionals and their employers and indicate that strong value is derived from hiring Cisco certified professionals.

