

20

Pearson VUE 2017 Value of IT Certification Survey

Results
summary

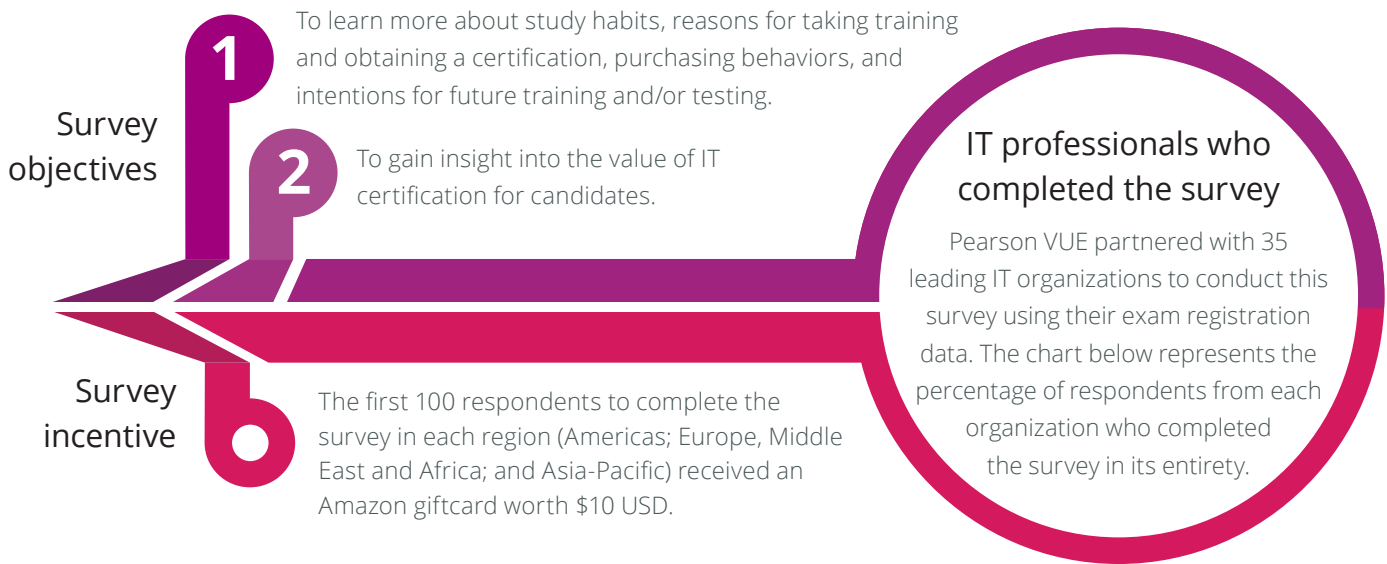


Overview

29,000+ RESPONSES FROM AROUND THE GLOBE.

1

The 2017 Value of IT Certification survey was conducted online from September to October 2017. Survey invitations were emailed to individuals who took a certification exam in the last year and had opted-in to receive marketing communications from Pearson VUE. The survey yielded over 29,000 completed responses from around the globe. All tables included in the report are based on total responses unless otherwise stated.



% of respondents from each organization

Microsoft	20.0%	Palo Alto Networks, Inc.	0.9%
Cisco Systems, Inc.	17.7%	BCS, The Chartered Institute for IT	0.8%
Oracle	11.7%	Facebook	0.8%
IBM	7.2%	Esri	0.6%
CompTIA Testing	7.0%	Pegasystems Inc.	0.6%
VMWare	5.0%	PCI Security Standards Council	0.5%
Hewlett Packard Enterprise (HPE)	4.5%	Adobe	0.4%
(ISC) ²	2.5%	FileMaker, Inc.	0.4%
Dell EMC	2.1%	Check Point Software Technologies	0.3%
Juniper Networks	1.9%	Teradata	0.3%
SAS	1.9%	Veritas	0.3%
Ericsson	1.7%	Software Certifications	0.2%
Citrix	1.1%	Logical Operations	0.1%
F5 Professional Certification Program	1.1%	McAfee	0.1%
NetApp	1.1%	National Instruments	0.1%
Linux Professional Institute (LPI)	1.0%	Symantec	0.1%

Respondent demographics

67.2% work within the **Information Technology** industry.

2

In what industry do you currently work?

Information Technology	67.2%
Telecommunications	9.7%
Government	4.4%
Financial Services	4.3%
Business Services	2.6%
Education	2.4%
Healthcare	2.0%
Manufacturing	1.3%
Energy	1.0%
Electronics	0.9%
Consumer Services	0.8%
Media & Broadcasting	0.8%
Construction	0.5%
Aerospace	0.4%
Food & Drink	0.4%
Pharmaceuticals	0.4%
Hospitality	0.3%
Entertainment	0.2%
Agriculture & Forestry	0.2%
Real Estate	0.2%
Fishing, Mining & Extraction	0.1%

What is your age?

18-24	11.1%
25-34	41.1%
35-54	41.4%
55-64	4.2%
65+	0.5%
Prefer not to answer	1.7%

What is your current job title?

Analyst/Associate	40.0%
Entry-level	14.6%
Manager	14.6%
Student	6.2%
Unemployed	4.6%
Senior Manager	4.4%
Intern	2.9%
Owner	2.2%
Director	2.1%
C-suite (CIO/CTO etc.)	0.8%
Vice-President	0.2%
Prefer not to answer	7.4%

What is your gender?

Male	85.0%
Female	14.0%
Prefer not to answer	1.0%

What is your geographic location?

Asia	31.6%
Europe	26.5%
North America	22.6%
Africa	7.4%
South America	3.9%
MENA (Middle East & North Africa)	3.6%
Australia/New Zealand	2.1%
Russia	1.2%
Central America	0.6%
Caribbean Islands	0.5%

Please refer to the Appendix for the complete listing of locations.

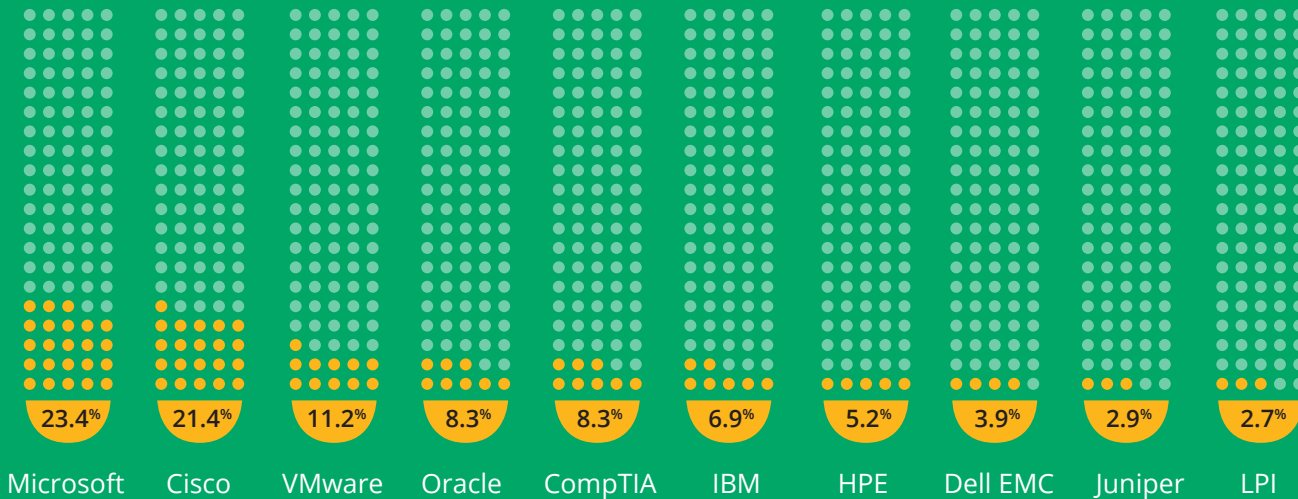
Training

81%

81% of IT professionals took a **training** course (either through an instructor-led classroom, virtual classroom or digital training) in the past 12 months. Respondents trained on the following IT programs.

3

Top ten programs:



Please refer to the Appendix for the complete listing of programs.

Which task area(s) did your most recent training cover?

Cloud has moved into the top 3 with an increase of 5% over 2016.

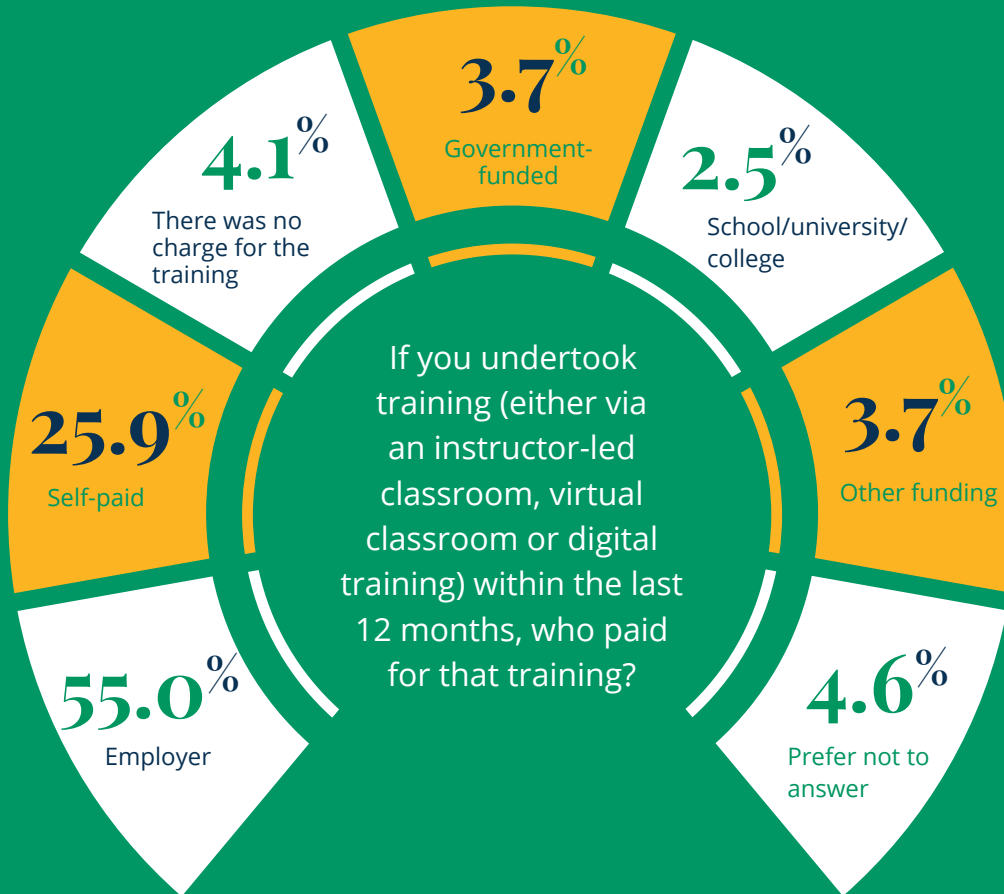


Networking	38.2 %	Mobility and Wireless	8.2%
Security	26.1%	Business Intelligence and Analysis	8.1%
Cloud	24.2%	Data Warehousing and Analytics	7.6%
Servers	23.6%	Project and Program Management	6.0%
Virtualization	22.6%	Mobile Apps	4.7%
Network Management	18.1%	Business Process Improvement	4.6%
Storage	16.1%	Leadership and Professional Skills	4.3%
Software Development (General)	12.6%	Video and Web Conferencing	2.3%
Enterprise Architecture	9.9%	Initiatives (BYOD, Social Media, etc.)	2.1%
Web Application Development	8.3%	Other	8.2%

I would like certification training to be delivered via an online course.

Strongly agree	23.7%
Agree	43.6%
Neutral	23.4%
Disagree	5.6%
Strongly disagree	3.7%

4



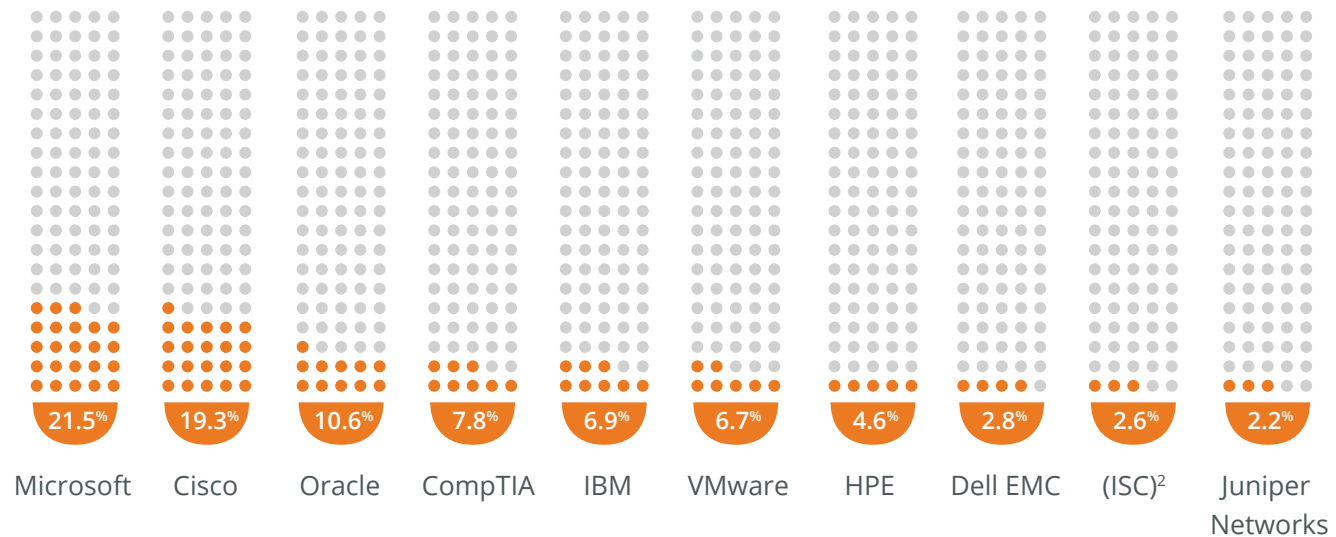
Still thinking about the most recent training you undertook (either via an instructor-led classroom, virtual classroom or digital training), from where did you purchase?

Amazon or other online source	36.8%
IT certification program	13.3%
Training provider	13.1%
Friend or colleague	8.1%
Educational institution	3.5%
mindhub.com, or other certification e-commerce site	3.5%
Employer or company	2.2%
Other	16.2%
Don't know	3.2%

Certification exams

In the past 12 months, have you taken a certification exam for any of the following programs?

Top ten programs:



Please refer to the Appendix for the complete listing of programs.

Which task area(s) did your most recent certification exam cover?

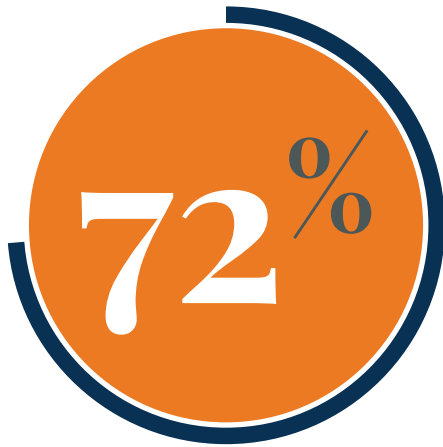
Filling the **top 3 spots** for 2017 were **Networking, Security and Servers**.

Cloud increased by 4% over 2016 with virtualization rounding out the top five.



Networking	32.4 %	Web Application Development	6.1%
Security	20.3%	Mobility and Wireless	5.8%
Servers	19.7%	Business Intelligence and Analysis	5.7%
Cloud	16.7%	Project and Program Management	3.2%
Virtualization	15.0%	Mobile Apps	2.8%
Network Management	13.3%	Leadership and Professional Skills	1.7%
Storage	13.0%	Initiatives (BYOD, Social Media etc.)	1.4%
Software Development (General)	12.5%	Video & Web Conferencing	1.3%
Enterprise Architecture	6.7%	Other	10.2%
Data Warehousing & Analytics	6.2%		

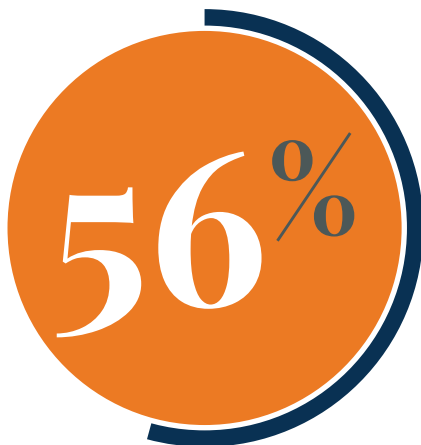
I would like the opportunity to take more specialized certifications (e.g. Security/Coding).



72% of IT professionals would like to earn more specialized certifications.

Strongly agree	28.8%
Agree	43.5%
Neutral	20.6%
Disagree	3.6%
Strongly disagree	3.5%

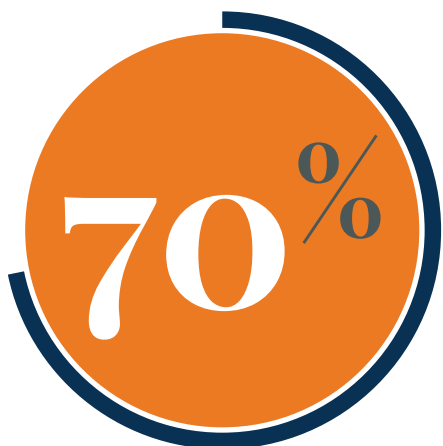
If you took an exam within the last 12 months, who paid for the most recent exam?



56% of exams were paid for by employers. This was an increase of 6.5% from 2016; however, self-paid decreased 6% over the prior year.

Employer	56.1%
Self-paid	30.5%
Government-funded	2.7%
Cost included in a school/university/college program	2.4%
There was no charge for the exam	2.1%
Other funding	3.0%
Prefer not to answer	2.9%

For the most recent exam you took, where was this exam purchased?



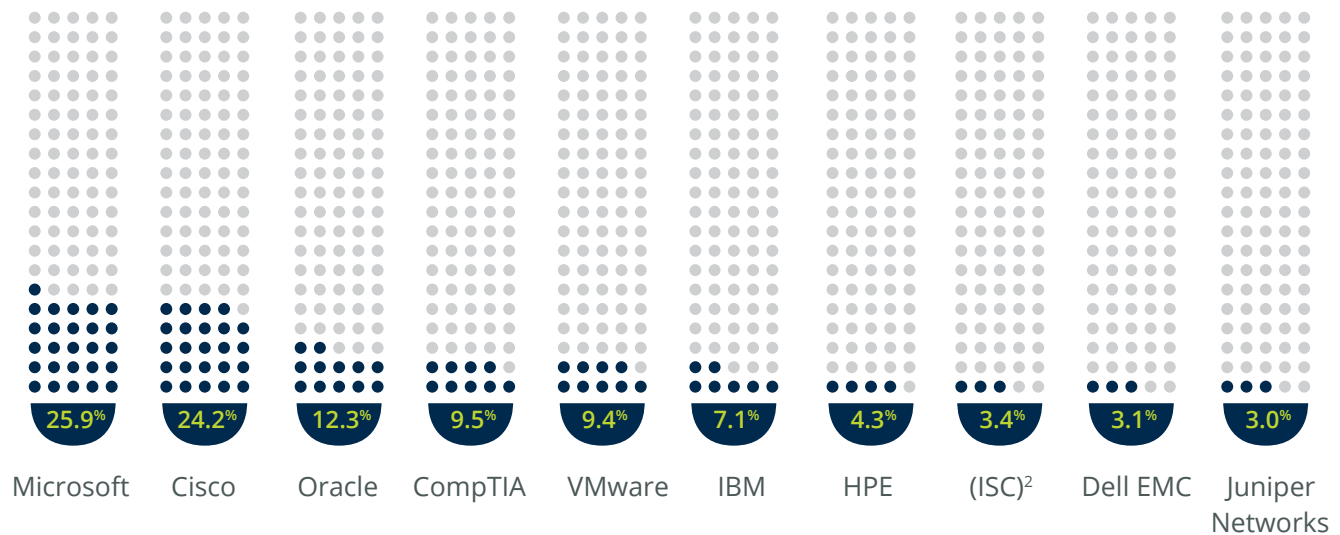
70% of exams were purchased at the time of registration or directly from the training organization, a decrease of 1% from 2016.

Online while scheduling the exam on the website	51.0%
From the training organization	19.2%
Amazon or other online source	4.6%
mindhub.com or other certification e-commerce site	4.9%
Provided by my school	3.8%
Provided by employer/company	2.5%
It was included in my training	3.0%
Other	7.4%
Don't know	3.7%

Self-study materials

For which of the following IT programs did you purchase self-study materials in the past 12 months? Please select all that apply.

Top ten programs:



Please refer to the Appendix for the complete listing of programs.

8 out of 10

candidates used self-study materials in the past 12 months.

In the past 12 months, did you use any self-study materials to prepare for your exam?

Yes 85.9%
No 14.1%

If you did use self-study materials within the last 12 months, who paid for them?



Self-paid	48.6%
Employer	30.0%
Provided by the IT certification program	6.1%
Government-funded	1.4%
Cost included in a school/university/college program	1.8%
Other	6.2%
Prefer not to answer	5.4%

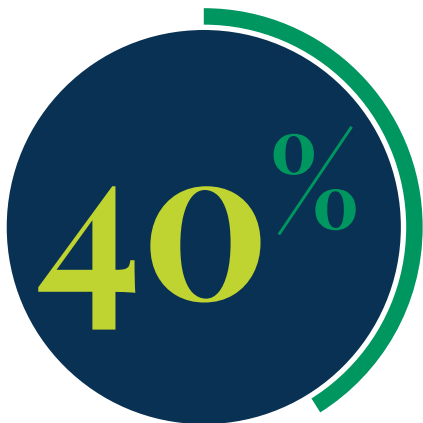
Using self-study materials played a role in passing my certification exam (e.g. practice tests, eBooks etc.).



76% of IT professionals said self-study materials played a role in passing a certification exam.

Strongly agree	33.3%
Agree	42.3%
Neutral	16.8%
Disagree	3.8%
Strongly disagree	3.9%

Where did you purchase the most recent self-study materials you used?



40% of candidates purchased study materials online, a 1% increase over the prior year.

Amazon or other online source	36.8%
From the IT certification program	13.3%
Training provider	13.1%
Friend/colleague	8.1%
mindhub.com or other certification e-commerce site	3.5%
Educational institution	3.5%
Employer/company	2.2%
Other	16.2%
Don't know	3.2%

Using self-study materials gave me the confidence to sit for my certification exam.



72% said using self-study materials increased their confidence.

Strongly agree	26.7%
Agree	45.5%
Neutral	19.8%
Disagree	4.3%
Strongly disagree	3.7%

Purchasing habits

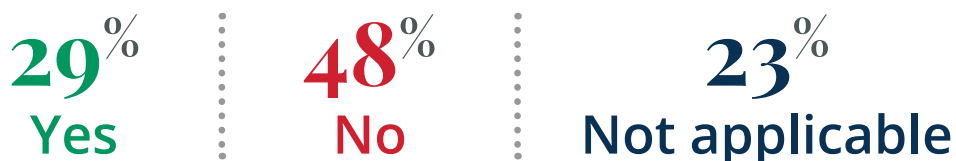
If you did not use any self-study materials to prepare for your most recent certification exam, what was the primary reason?



Was the cost of the exam included with the instructor-led training?



Was the cost of the exam included with the study materials?



Impact of certification

Which of the following benefits did you receive from completing your **certification**?

Positive impact on professional image and moving to a career in IT continue as the predominant benefits for obtaining certification.

10

Received positive impact on my professional image/reputation	64.9%
Moved into a career in IT	22.6%
Helped me get a salary increase	17.7%
Found a job	15.5%
Got a promotion	12.5%
No career benefits realized	13.4%
Other	7.3%



How long after you achieved certification did you experience the first benefit?



54% experienced their first benefit of certification within 3 months.

Immediately	24.4%
Within 1 month	14.4%
Within 3 months	15.7%
Within 6 months	9.7%
Within a year	7.1%
Not applicable	19.2%
Prefer not to answer	9.2%

11

If you received a salary increase or a promotion after certification, by what percentage did your salary increase?



23% said they received a salary increase of up to 20% upon earning a certification.

Salary increase	% responded
Up to 5%	9.2%
6% - 10%	8.5%
11% - 20%	5.4%
21% - 30%	2.8%
31% - 50%	1.6%
51% or greater	1.3%
Prefer not to answer	20.3%

Would you recommend certification to a colleague?



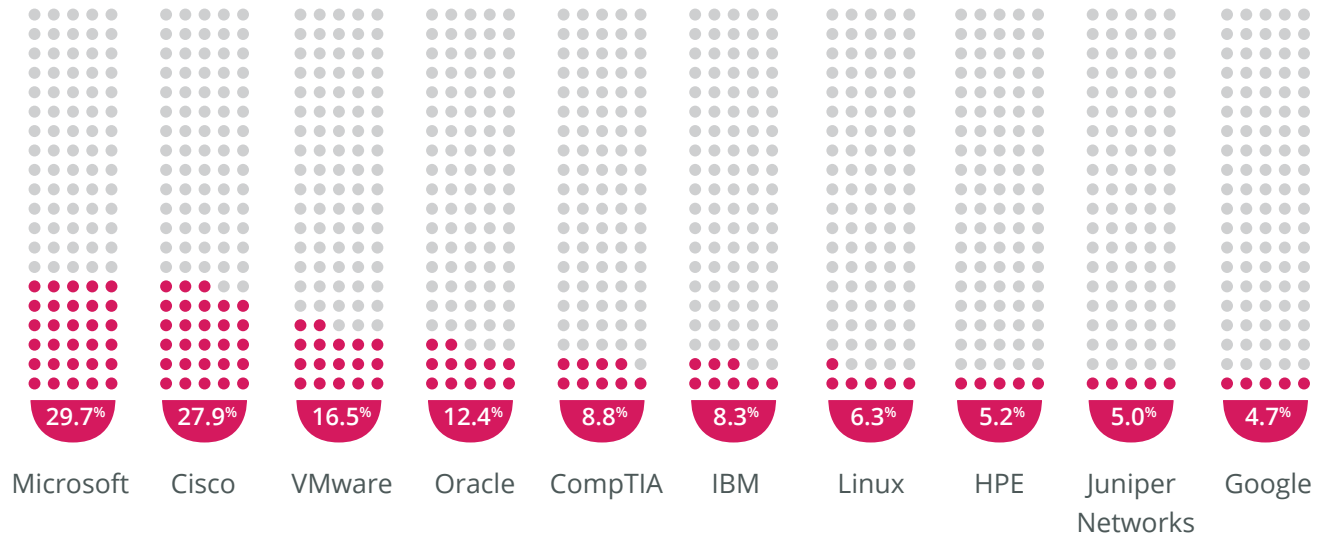
86% of IT professionals said they would recommend certification to a colleague when discussing a career or advancement in IT.

Intentions & motivations

TRAINING

For which IT programs do you intend to take training courses (either via an instructor-led classroom, virtual classroom or digital training) in the next 12 months?

Top ten programs:



Please refer to the Appendix for the complete listing of programs.

In which task area(s) do you plan to take training in the next 12 months?

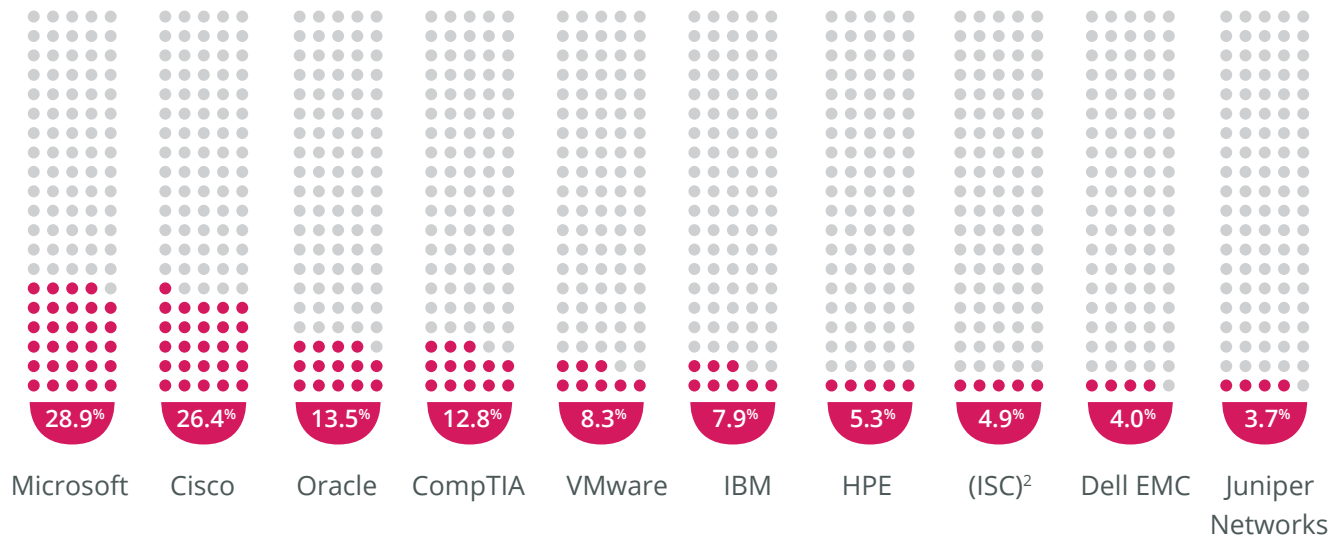
Networking, Cloud and Security are the **top three** disciplines of greatest interest to IT professionals who intend to take training in the coming year.

Networking	32.0%	Data Warehousing & Analytics	9.5%
Cloud	30.0%	Project and Program Management	8.5%
Security	29.6%	Mobility and Wireless	8.0%
Virtualization	22.4%	Mobile Apps	6.5%
Servers	22.0%	Leadership and Professional Skills	6.5%
Network Management	16.6%	Business Process Improvement	5.3%
Storage	14.2%	Initiatives (BYOD, Social Media etc.)	2.3%
Software Development (General)	13.9%	Video & Web Conferencing	2.2%
Business Intelligence and Analysis	10.6%	Other	4.5%
Enterprise Architecture	10.1%	Don't know	11.5%
Web Application Development	9.9%		

CERTIFICATION

For which IT programs do you intend to take a **certification** exam in the next 12 months?

Top ten programs:



Please refer to the Appendix for the complete listing of programs.

13

In which task area(s) do you plan to take a certification exam in the next 12 months?

Networking continues to be an area in which IT professionals intend to certify; however, Cloud moved up to the number two spot this year.



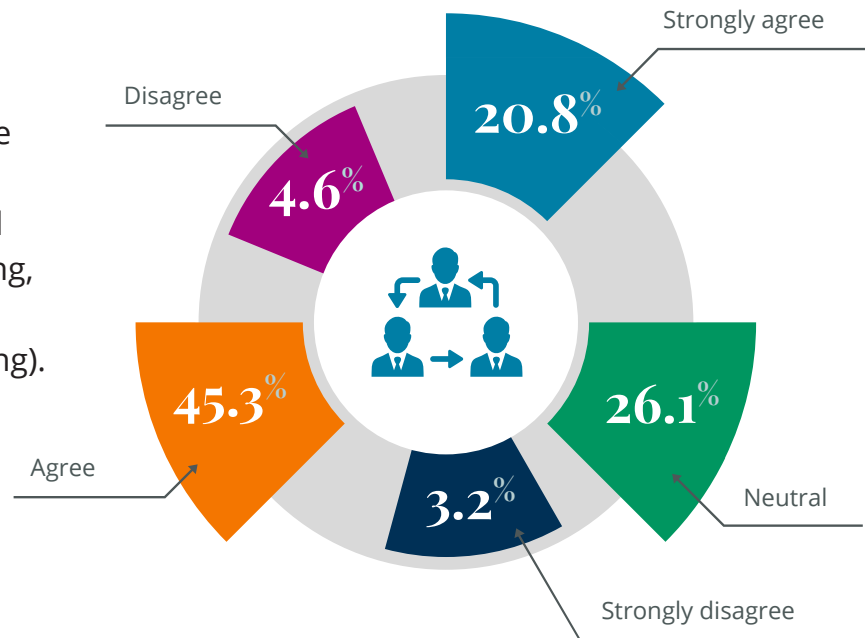
Networking	30.5%	Enterprise Architecture	7.6%
Cloud	26.5%	Project and Program Management	6.8%
Security	26.4%	Mobility and Wireless	6.7%
Servers	21.0%	Mobile Apps	4.9%
Virtualization	18.6%	Business Process Improvement	4.3%
Network Management	15.0%	Leadership and Professional Skills	4.2%
Storage	12.4%	Initiatives (BYOD, Social Media etc.)	1.9%
Software Development (General)	12.3%	Video & Web Conferencing	1.9%
Business Intelligence and Analysis	8.9%	Other	4.4%
Web Application Development	8.3%	Don't know	10.7%
Data Warehousing & Analytics	8.2%		

When asked to rate how strongly respondents felt about a topic:

It is important to improve the relevance of tests by also assessing soft skills (e.g. problem solving and time management), in addition to technical skills.

Strongly agree	20.4%
Agree	47.0%
Neutral	23.6%
Disagree	5.4%
Strongly disagree	3.5%

There is a need to explore new ways of assessing/validating knowledge and technical skills (e.g. gaming, remote labs and other performance-based testing).



Please rate the following statements on how well they describe your intentions for the next 12 months.

There is a commitment to ongoing professional development among candidates, with **88% responding they are likely or very likely to take a certification exam in the next 12 months**. Additionally, 59% are likely to undertake further instructor-led training and 76% intend to take an online course.

I will undertake instructor-led training.

Likely and very likely	58.5%
Unlikely and very unlikely	41.5%

I will purchase self-study materials.

Likely and very likely	68.3%
Unlikely and very unlikely	31.7%

I will take a certification exam.

Likely and very likely	87.9%
Unlikely and very unlikely	12.1%

I will take an online course.

Likely and very likely	75.6%
Unlikely and very unlikely	24.4%

Badging

Do you know what a digital badge is?



There was a 21% increase on respondents knowing what a digital badge is over the prior year.

58.6%
Yes



41.4%
No

Do you currently use digital badges to represent your certification?



11% more respondents use digital badges to represent their certifications over the prior year.

52.8%
Yes



47.2%
No

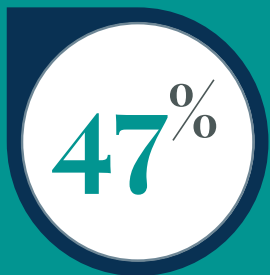
Has your badge created new opportunities for you?



21% of respondents said they received a job offer or promotion upon sharing their badge with a future employer.

Received positive feedback from my professional network after sharing my badge	41.1%
Received a job offer after an employer verified my badge	14.8%
Received a promotion after an employer verified my badge	6.3%

I would like the ability to share my credentials online via a badging community.



47% of IT professionals would like to share their credentials within a badging community.

Strongly agree	15.5%
Agree	31.6%
Neutral	36.7%
Disagree	9.3%
Strongly disagree	7.0%

Survey methodology

All candidates who have taken an IT certification from an approved program supplier with Pearson VUE from August 2016 to July 2017. The sample list was de-duplicated based on frequency of the exam by client. In total 35 IT clients participated in this survey. A disproportionate stratified random sampling method which represents the IT testing universe of Pearson VUE IT programs was applied for this survey.

About Pearson VUE

Pearson VUE (www.pearsonvue.com) is the global leader in computer-based testing for high-stakes certification and licensure exams in the healthcare, finance, information technology, academic and admissions markets. We offer a full suite of services to develop, manage, deliver and grow test programs for over 450 clients via the world's most comprehensive network of highly secure test centers in 180 countries, and through online solutions. Pearson VUE owns Certiport, the global leader in foundational IT certification solutions, and is a business of the world's leading learning company Pearson (NYSE: PSO; LSE: PSON).

Appendix

Respondent demographics

Geographic location by country

Afghanistan	0.1%	France	1.4%	Other	0.1%
Albania	0.1%	Germany	3.3%	Pakistan	0.5%
Algeria	0.1%	Ghana	0.2%	Panama	0.1%
Angola	0.1%	Greece	0.3%	Peru	0.2%
Argentina	0.3%	Guatemala	0.1%	Philippines	1.4%
Armenia	0.1%	Hong Kong	0.5%	Poland	1.2%
Australia	1.5%	Hungary	0.5%	Portugal	0.7%
Austria	0.4%	India	14.5%	Puerto Rico	0.0%
Azerbaijan	0.1%	Indonesia	0.7%	Qatar	0.2%
Bahrain	0.1%	Iraq	0.1%	Romania	1.0%
Bangladesh	0.1%	Ireland	0.7%	Russian Federation	1.2%
Barbados	0.1%	Israel	0.3%	Saudi Arabia	0.6%
Belarus	0.1%	Italy	2.7%	Serbia	0.4%
Belgium	0.1%	Jamaica	0.1%	Singapore	1.0%
Bolivia	0.3%	Japan	7.2%	Slovakia	0.5%
Bosnia and Herzegovina	0.1%	Jordan	0.1%	Slovenia	0.2%
Botswana	1.5%	Kazakhstan	0.1%	South Africa	4.2%
Brazil	0.4%	Kenya	0.5%	South Korea	0.6%
Bulgaria	0.1%	Kuwait	0.2%	Spain	1.9%
Cambodia	0.1%	Latvia	0.2%	Sri Lanka	0.3%
Cameroon	0.1%	Lebanon	0.1%	Sweden	0.6%
Canada	0.1%	Lithuania	0.3%	Switzerland	0.6%
Chile	0.1%	Luxembourg	0.1%	Taiwan	0.4%
China	0.1%	Macedonia	0.1%	Tanzania	0.1%
Colombia	0.3%	Malawi	0.0%	Thailand	0.4%
Costa Rica	0.1%	Malaysia	1.1%	Trinidad and Tobago	0.1%
Cote d'Ivoire	1.5%	Malta	0.1%	Tunisia	0.1%
Croatia	0.4%	Mauritius	0.1%	Turkey	0.3%
Curacao	0.1%	Mexico	1.3%	Uganda	0.1%
Cyprus	0.1%	Morocco	0.2%	Ukraine	0.5%
Czech Republic	0.1%	Myanmar	0.2%	United Arab Emirates	0.5%
Denmark	0.1%	Namibia	0.1%	United Kingdom	3.1%
Dominican Republic	0.1%	Nepal	0.1%	United States	19.1%
Ecuador	0.1%	Netherlands	1.8%	Uruguay	0.1%
Egypt	0.3%	New Zealand	0.5%	Venezuela	0.2%
Estonia	0.1%	Nigeria	0.9%	Vietnam	0.5%
Ethiopia	1.5%	Norway	0.3%	Zimbabwe	0.2%
Finland	0.4%	Oman	0.1%		

Appendix

Training - In the past 12 months, have you taken any training courses (either through an instructor-led classroom, virtual classroom or digital training) for any of the following IT programs?

Adobe	2.0%	(ISC) ²	2.5%
Alcatel Lucent	0.4%	ISTQB	0.6%
Apple	1.1%	Juniper Networks	2.9%
AppSense	0.1%	Lenovo	1.0%
Arista	0.2%	LinkedIn	1.3%
ASQ	0.0%	Linux Professional Institute (LPI)	2.7%
Atlassian	0.4%	Logical Operations	0.2%
Autodesk	0.3%	McAfee	0.8%
Avaloq	0.0%	Microsoft	23.4%
BCS	0.3%	National Instruments	0.1%
Brocade	0.7%	NetApp	2.1%
Check Point	1.5%	Nokia	0.4%
Cisco	21.4%	Oracle	8.3%
Citrix	2.3%	Palo Alto Networks	2.2%
CIW	0.2%	PCI Security Standards Council	0.6%
CompTIA	8.3%	Pegasystems	0.5%
Dell EMC	3.9%	PeopleCert	0.2%
Ericsson	1.6%	PMI	1.2%
Esri	0.5%	QAI	0.1%
EXIN	1.0%	SAP	0.9%
F5 Networks	2.5%	SAS	1.7%
Facebook	1.2%	Siemens	0.1%
Filemaker	0.3%	Symantec	1.0%
Fortinet	1.7%	Teradata	0.4%
GIAC	0.2%	Tibco	0.1%
Google	2.2%	Veritas	0.7%
Hewlett Packard Enterprise (HPE)	5.2%	VMware	11.2%
IBM	6.9%	None	19.2%
IIBA	0.1%	Other	8.6%
ISACA	0.6%		

Appendix

Certification exams - In the past 12 months, have you taken a certification exam for any of the following programs?

Adobe	0.8%	(ISC) ²	2.6%
Alcatel Lucent	0.1%	ISTQB	0.6%
Apple	0.3%	Juniper Networks	2.2%
AppSense	0.1%	Lenovo	0.4%
Arista	0.1%	LinkedIn	0.1%
ASQ	0.0%	Linux Professional Institute (LPI)	1.9%
BCS	0.4%	Logical Operations	0.1%
Brocade	0.1%	McAfee	0.2%
Check Point	0.7%	Microsoft	21.5%
Cisco	19.3%	National Instruments	0.1%
Citrix	1.4%	NetApp	1.3%
CIW	0.1%	Nokia	0.1%
CompTIA	7.8%	Oracle	10.6%
Dell EMC	2.8%	Palo Alto Networks	1.2%
Ericsson	1.5%	PCI Security Standards Council	0.5%
Esri	0.6%	Pegasystems	0.6%
EXIN	0.9%	PeopleCert	0.2%
F5 Networks	1.4%	PMI	0.5%
Facebook	0.8%	QAI	0.2%
Filemaker	0.4%	SAP	0.2%
Fortinet	0.6%	SAS	1.8%
GIAC	0.1%	Symantec	0.3%
Google	0.6%	Teradata	0.3%
Hewlett Packard Enterprise (HPE)	4.6%	Veritas	0.4%
IBM	6.9%	VMware	6.7%
IIBA	0.1%	None	10.2%
ISACA	0.3%	Other	4.9%

Appendix

Self-study materials - For which of the following IT programs did you purchase self-study materials in the past 12 months?

Adobe	1.3%	(ISC) ²	3.4%
Alcatel Lucent	0.2%	ISQI	0.1%
Apple	0.5%	ISTQB	0.7%
AppSense	0.1%	Juniper Networks	3.0%
Arista	0.1%	Lenovo	0.5%
Atlassian	0.2%	LinkedIn	0.4%
Autodesk	0.1%	Linux Professional Institute (LPI)	3.0%
BCS	0.3%	Logical Operations	0.2%
Brocade	0.3%	McAfee	0.4%
Check Point	1.2%	Microsoft	25.9%
Cisco	24.2%	National Instruments	0.1%
Citrix	1.8%	NetApp	1.5%
CIW	0.1%	Nokia	0.3%
CompTIA	9.5%	Oracle	12.3%
Dell EMC	3.1%	Palo Alto Networks	1.5%
Ericsson	1.7%	PCI Security Standards Council	0.5%
Esri	0.6%	Pegasystems	0.7%
EXIN	0.9%	PeopleCert	0.2%
F5 Networks	2.1%	PMI	0.9%
Facebook	1.1%	QAI	0.1%
Filemaker	0.4%	SAP	0.5%
Fortinet	1.2%	SAS	2.0%
GIAC	0.2%	Siemens	0.1%
Google	1.9%	SQE	0.0%
Hewlett Packard Enterprise (HPE)	4.3%	Symantec	0.5%
IBM	7.1%	Teradata	0.4%
IIBA	0.1%	Veritas	0.6%
IIST	0.0%	VMware	9.4%
ISACA	0.5%	Other	5.8%

Appendix

Intentions & motivations - For which IT programs do you intend to take training courses (either via an instructor-led classroom, virtual classroom or digital training) in the next 12 months?

Adobe	2.5%	(ISC) ²	3.5%
Alcatel Lucent	0.5%	ISQI	0.2%
Apple	2.4%	ISTQB	0.7%
AppSense	0.2%	Juniper Networks	5.0%
Arista	0.4%	Lenovo	1.1%
ASQ	0.1%	LinkedIn	1.0%
Atlassian	0.4%	Linux Professional Institute (LPI)	6.3%
Autodesk	0.4%	Logical Operations	0.3%
Avaloq	0.0%	McAfee	1.1%
BCS	0.3%	Microsoft	29.7%
Brocade	1.0%	National Instruments	0.3%
Check Point	2.5%	NetApp	2.5%
Cisco	27.9%	Nokia	0.7%
Citrix	3.3%	Oracle	12.4%
CIW	0.2%	Palo Alto Networks	3.3%
CompTIA	8.8%	PCI Security Standards Council	1.1%
Dassault	0.1%	Pegasystems	0.7%
Dell EMC	4.3%	PeopleCert	0.3%
Ericsson	1.8%	PMI	2.3%
Esri	0.7%	QAI	0.1%
EXIN	1.0%	Ruijie Networks	0.1%
F5 Networks	4.3%	SAP	2.6%
Facebook	1.6%	SAS	2.0%
Filemaker	0.4%	Siemens	0.3%
Fortinet	2.8%	SQE	0.1%
GIAC	0.8%	Symantec	1.3%
Google	4.7%	Teradata	0.8%
Hewlett Packard Enterprise (HPE)	5.2%	Tibco	0.3%
IBM	8.3%	Veritas	0.1%
IIBA	0.3%	VMware	16.5%
IIST	0.1%	Don't know	12.0%
ISACA	1.9%	Other	6.7%

Appendix

Intentions & motivations - For which IT programs do you intend to take a certification exam in the next 12 months?

Adobe	1.9%	(ISC) ²	3.3%
Alcatel Lucent	0.4%	ISQI	0.2%
Apple	1.8%	ISTQB	0.8%
AppSense	0.1%	Juniper Networks	4.0%
Arista	0.3%	Lenovo	0.9%
ASQ	0.1%	LinkedIn	0.6%
Atlassian	0.2%	Linux Professional Institute (LPI)	5.3%
Autodesk	0.2%	Logical Operations	0.2%
BCS	0.3%	McAfee	0.8%
Brocade	0.6%	Microsoft	28.9%
Check Point	2.1%	National Instruments	0.2%
Cisco	26.4%	NetApp	2.0%
Citrix	2.6%	Nokia	0.6%
CIW	0.2%	Oracle	12.8%
CompTIA	8.3%	Palo Alto Networks	2.5%
Dassault	0.1%	PCI Security Standards Council	0.9%
Dell EMC	3.7%	Pegasystems	0.7%
Ericsson	1.8%	PeopleCert	0.2%
Esri	0.6%	PMI	2.1%
EXIN	1.0%	QAI	0.1%
F5 Networks	3.2%	Ruijie Networks	0.1%
Facebook	1.5%	SAP	2.0%
Filemaker	0.6%	SAS	1.9%
Fortinet	2.1%	Siemens	0.3%
GIAC	0.6%	SQE	0.1%
Google	3.6%	Symantec	0.8%
Hewlett Packard Enterprise (HPE)	4.9%	Teradata	0.7%
IBM	7.9%	Tibco	0.1%
IIBA	0.3%	Veritas	0.8%
IIST	0.1%	VMware	13.5%
ISACA	1.7%	Other	9.2%

