

An abstract graphic design featuring a central point from which several rays of light emanate. The rays are colored in shades of yellow, orange, and red, and are composed of multiple parallel lines. To the left of the central point, there are several curved lines in light blue, light green, and light yellow, some of which are thicker and more prominent. The overall composition is dynamic and suggests a sense of movement and direction.

**20/20 Vision:
Introducing the IT Pro of the Future**

We've seen the future

By 2020, the corporate IT department will require a subtly different set of talents.

Your job isn't necessarily going to get any easier or any more difficult, but there could be a shift in emphasis. Users will be solving their own technical support problems and you will be spending more time communicating and less time getting technical.

Don't worry, the old aptitudes will still be required: IT professionals will need both specialist and general technical skillsets, while IT pros with good communications skills and a solid grounding in IT policy enforcement will excel in their roles. This is no surprise to most IT pros – being a technician, an all-rounder and a communicator is increasingly in demand in today's corporate IT industry. In 2020, even more so.



What will you be doing in the year 2020? Hopefully you'll still be in good health. You might still be working in IT, or retired, or be a few more rungs up the career ladder. You might still be in the same role. But what will the IT industry look like in 2020? What will the challenges be, and how will IT professionals need to change?

To help us all prepare for the unknown, Aruba Networks asked groups of IT professionals for their views on how the IT industry will look in 2020. The research came in two separate forms: one an online multiple choice survey of 159 global IT pros, the second from qualitative focus group discussions with IT managers responsible for global strategy execution, and the staff these IT managers employ.

Foreword

Phillip Brown, professor of work, employability and labour markets, Cardiff University.

The future might be in the cloud, but for IT professionals the future is clouded with uncertainty. If cloud computing allows for more standardisation and task-oriented activities, developing the skills to stay ahead of digital routinisation will be key to career development. The distinction between the ‘generalist’ and ‘specialist’ may become less meaningful in the future.

One thing is for sure, mobility is driving IT integration and a huge expansion in the number of possibilities. Tasks can be completed anywhere, and on different devices. This is both an opportunity and a challenge for IT professionals.

Future IT roles will blend technical knowhow with the so-called ‘soft’ currencies of communications skills, business awareness, and management nous. It will also require good networking skills, both virtual and face-to-face. Today, these facets have to be combined to demonstrate ability in business, problem-solving skills and the art of persuasion, not to mention the diplomacy required to manage expectations when the latest consumer wonder-technology is announced.

You won’t have to become a great orator, but you will need to brush up on skills not traditionally associated with IT professionals.

The results of Aruba’s research – combining quantitative survey data and evidence from qualitative focus groups – present a compelling vision of the future role of the IT pro. It points to a transformation in future skill requirements and offers an insight into what the IT department of 2020 will look like.

I hope you enjoy reading.

Phillip Brown

“My team struggles to communicate effectively with our offshore people.”

- comment from our focus group discussions

Communication breakdown

There are a number of key findings to come out of this research, and while much of it is still up for discussion, one future change that everyone is expecting is the on-going integration of IT functions within businesses.

This will inevitably lead to the need for IT professionals to communicate better and more frequently than today. Of course, it is already the case that communication is a bigger part of the IT department than it was 10 years ago. In the future it will be even more important.

Aruba's survey found that 88 per cent of IT pros say that communication will be a key skill in the future, while 89 per cent said that the communication of IT policies to the wider company is crucial. A further 67 per cent said that policy enforcement will be important in 2020 – and few policies can be enforced without effective communication.

When asked, 'how important do you feel it will be for IT professionals to be skilled as deep technical specialists', 84 per cent said either 'very important' or 'somewhat important'. Indeed,

the demands of the modern IT industry mean that in the future its employees will need to be general all-rounders *and* specialists: eight out of ten respondents believe it is important that IT professionals have a broad, general skillset, meaning that at least some think it is important to have *both* skills.

However, given that only a fifth (22 per cent) of IT pros view technical deployment skills as being a main focus by the year 2020, we can infer that the pendulum is swinging towards being a generalist, not a specialist.

Drilling down a little further, we see that the valued skills of the future will be in system design, architecture, integration and implementation, but the most valued abilities will be in the areas of data security and protection.

It's no surprise to learn that BYOD is still the way the industry is moving, both for today and for tomorrow. Our

survey tells us that the top three 'trends for the future of IT' are BYOD (47 per cent), data security in the cloud (36 per cent), and virtualisation (36 per cent). Seventy-eight per cent of IT pros see user expectations being further consumerised by 2020, with users demanding technology that 'just works'.

Three-quarters of respondents expect the number of projects to be given to external specialists will increase in an 'on demand' fashion. With our qualitative survey offering clues suggesting some IT pros find it difficult to communicate with their offshore colleagues, the need to spell out ideas quickly and clearly will be more pressing than ever by the time 2020 comes around.

An eye on the future

88%

say communication will be a key skill in the future.

89%

say communication of IT policies to the wider company will be crucial.

Top three trends for the future of IT

- BYOD
- Cloud security
- Virtualisation

Three key roles

From the discussions and topics raised by our focus group discussions, we have identified three key roles for the future of IT. You may be one of the following, but the IT professional of the future will need to be a mix of all three, even if that does appear to be a contradiction.

- **The Technician**
Will have a broad base of knowledge without specific, in-depth expertise within a certain area. The Technician will be responsible for implementation and integration of projects.
- **The Specialist**
Will have a specific and deep understanding of a single technical area. The Specialist will most likely work as a contractor or in an 'on demand' fashion, providing assistance to business in his or her area of expertise.
- **The Communicator**
Will provide the connection between the IT function and the business. The communicator will be responsible for obtaining buy-in from management and ensuring understanding and support for the implementation of changes and upgrades in technology.

The technician and the specialist are well-defined – most IT pros will have an understanding of what it means to be in either of these roles. We want to focus instead on the relatively unclear role of *communicator*, a role almost all IT pros are already playing as part of their current job. As time goes by, it will be even more central to the IT worker's remit.

What it means to be an IT communicator

- Facing in different directions to different audiences: communication skills are now multi-faceted.
- 360-degree communication is now essential. You'll be talking to everyone in your business, and the pressure is increasing to speak in a way *they* understand, not just the way *you* understand.
- The art of persuasion: setting realistic expectations in the face of company executives who expect the world from IT innovations.
- Translation skills: IT professionals have to communicate 'complex simplicity' – taking complex technical issues and making them intelligible to a wider audience.
- Cultural literacy: involves communicating around the world to people using other languages and from different cultural backgrounds. This has become as important as technical literacy.

“The most valuable training I’ve had was for communication and management skills. I started out as a geek and worked my way up, so the technical stuff is kind of easy.”

- comment from our focus group discussions

- Virtual communicators – learning and communicating using online forums, blogs, Facebook, Twitter, etc.
- Network communication – developing the communication skills to build trust whether face-to-face or virtually.
- Learning when to switch off and how to go ‘offline’ in an era of zero downtime.

The strategic function

The needs of the business are increasingly affecting the role of the IT pro. This will lead to greater visibility of the IT pro within the general business; on a day-to-day basis this might be an increasing demand from management and personnel for consumer-friendly technologies like tablets and smartphones, and the desire to work seamlessly on any device.

The feedback we’ve seen from our research shows that IT pros claim front-end developments – such as touch, tap and swipe simplifications – will only increase consumer demand and expectations within the business environment. It’s BYOD folks, and it’ll still be here in 2020. There’s no escape.



Interoperability

There is a strong call by IT professionals for standardisation of technologies in order to accommodate the desire from within the business to work on any device, any time and in any place. The rise of smartphones and, in particular, tablets has created a desire amongst employees to work remotely, which IT pros believe they will increasingly have to accommodate.

In this respect, the ideal situation for the IT pro in five-to-ten years might amount to the ability to deliver company systems, en masse, across a growing range of platforms and devices and with security risks taken care of.

Most of the IT people we asked are concerned that the technical knowledge and time required to accommodate this demand would be beyond them, the project management aspect in itself being all-encompassing.

“The company is doing BYOD because they want to keep up with the times and attract talent.”

- comment from our focus group discussions

Work-life balance, 2020-style

Mobile technology is increasingly facilitating what might best be described as ‘work-life integration’ and in the future, if not already, there may be a need to be ‘always on’.

This might mean a number of things for the IT pro of the future: round-the-clock resourcing solutions, the ability to problem-solve and see issues easily when working remotely, and perhaps even a driven, go-getting personal attitude in the workplace. Imagine that.

Issues around integration are high on the agenda of today’s IT professional, namely the involvement of partners (cloud-based or otherwise) and adoption of virtualisation to varying degrees. This might include networking and infrastructure to more commoditised functions like desktop support. In particular, there are challenges posed by legacy system alignment, such as VOIP versus analogue telephones.

Assuming that the trend continues it is clear the IT worker of the future will spend an increasing amount of time integrating systems, partners, and IT working processes across diverse and often global locations.

The cloud conundrum

The cloud and virtualisation presents a series of questions for the IT pro. Where and to what extent might these platforms offer solutions and benefits to the business?

And, on the flipside, what risks do they present to the business by way of security, control and integration? Many IT decision-makers are holding back investment in cloud-based options because of this.

Our survey showed that cloud security and virtualisation are two of the biggest trends as predicted by the sample group, remaining a key topic in five-to-ten years’ time.

“Even specialists need to be specialist in a broader range of technical subjects.”

- comment from our focus group discussions

The smart user

IT has become the social norm. Consumers use technology on a daily basis through computers, laptops, smartphones and tablets. In the future it won’t be possible for IT department to have a strong working knowledge of all these technologies, especially phones and tablets. However, there is clearly a growing understanding of technology by end users.

Perhaps partly through dented pride and partly out of a commitment to ‘doing things properly’, most IT professionals see it as inconceivable that they would ever need to rely on the technical knowledge of the users.

There are signs of acceptance – in the face of BYOD trends, IT people might require some help and support. Almost a third of those surveyed (31 per cent) think that by 2020 the average user will know more about the devices they use for work than their own IT department. This finding was supported by responses from our focus group.

IT in the boardroom

Without a doubt IT is becoming more important in the boardroom. It is not inconceivable that an increasing proportion of business leaders will come from an IT background, such is the way that IT is becoming ever more integrated into daily life.

Certainly where IT is critical to the delivery of business output and processes across more and more business sectors, it is not unthinkable that more CEOs will have started their career journeys from the IT department.

Sourcing skills for the future

It is important that IT qualifications, degrees and training take into account the increasing need for business knowledge and understanding to better prepare IT professionals for leadership.

In our survey, 42 per cent thought training should come from certifications offered by vendors, 29 per cent see training as an on-the-job self-learning process and 28 per cent think training will occur via online search tools. Again, these viewpoints were shared by our focus group.



Conclusion

We are already experiencing the changes that will shape the role of the IT professional in 2020. From the cloud to interoperability to BYOD, technology within the business world is evolving at an increasing pace.

From upgrading security software to dealing with the chief executive that returns from a conference demanding that all employees are given iPads, the IT professional must be able to set expectations, communicate change, and create and enforce policy to all levels of the business. They must be able to simultaneously support the business *and* lead it to a successful future.

We hope we've helped make the future just a little bit clearer.

“In 10 years everyone is going to be expected to have their own device.”

- comment from our focus group discussions

About Aruba Networks, Inc.

Aruba Networks is a leading provider of next-generation network access solutions for the mobile enterprise. The company's Mobile Virtual Enterprise (MOVE) architecture unifies wired and wireless network infrastructures into one seamless access solution for corporate headquarters, mobile business professionals, remote workers and guests. This unified approach to access networks enables IT organisations and users to securely address the Bring Your Own Device (BYOD) phenomenon, dramatically improving productivity and lowering capital and operational costs.

Listed on the NASDAQ and Russell 2000® Index, Aruba is based in Sunnyvale, California, and has operations throughout the Americas, Europe, Middle East, Africa and Asia Pacific regions.

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www.arubanetworks.com

720 Centennial Court, Centennial Park, Elstree,
Hertfordshire, United Kingdom WD6 3SY

Tel: +44 (0)208 736 4574 | emeasales@arubanetworks.com