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UK PRODUCTIVITY GROWTH THREATENED BY PROJECTED IT NETWORKING SKILLS SHORTAGE

- *Major study on demand for networking skills points to a shortage of almost 40,000 people in the UK*
- *Europe-wide skills shortage expected to hit half a million people by 2008*

London, UK, October 11, 2005 – By 2008 the UK will face a shortage of almost 40 thousand people with the advanced networking technology¹ skills needed to drive UK business and productivity, according to a study and white paper by IDC, commissioned by Cisco Systems.

This figure represents an average advanced technology skills gap of 9.3 per cent by 2008. While the UK will improve its ranking against other European nations during this period from its 2005 position of tenth, to first by 2008, the size of the estimated number of people required to fill this gap – 39,500 – is still much larger than most European nations.

Across the entire continent, the survey found that there will be a shortage of up to half a million people with advanced networking technology skills by 2008, representing a skills gap in Europe of 15.8 per cent.

In a third of the 31 countries surveyed, demand for these skills will outstrip supply by more than 20 per cent in 2008, with Eastern European countries, especially non-EU member States, facing the widest shortfalls.

These findings represent a severe challenge to organisations, hindering advanced technology adoption, business competitiveness and economic growth. A shortage could hold back the UK and Europe's competitiveness in the global market and hinder the European Commission's policy goals, says the report. Set against IDC's advanced networking

¹ The study looked at "advanced networking" skills in the areas of IP telephony, security and wireless networking

technology growth projections (18 per cent per year to 2008) and the European Union's plans to improve competitiveness through ICT^{2,3}, greater shortfalls may occur.

In some countries, fast action now could lead to significant and short term improvement. *See end of release for country ranking.*

The skills gap is even more significant considering 60 per cent of organizations across Europe say they use the network to underpin business processes and to communicate with customers, partners and suppliers, with 80 per cent of companies seeing the importance of the network increasing in the future.

More than 50 per cent of companies also see an increasing need for IT staff with strong business and multiple skill sets, which is consistent with the view that business skills are becoming increasingly critical to investment decisions in networking technologies.

Reasons for the skills shortage include extensive advanced technology adoption in Europe, the rapid growth of ebusiness coupled insufficient training programmes across Europe.

In addition to the analysis of demand and supply in advanced networking technology, the report, called "*Networking Skills in Europe: Will an Increasing Shortage Hamper Competitiveness in the Global Market*" also looked at forecasted needs for general networking technology skills and networking certification. The study behind the report also addresses past and future hiring trends. Key findings include:

- 70 per cent of businesses see security skills becoming more important in the future; 69 per cent expect wireless networking skills to increase in importance; and 57 per cent expect IP telephony skills to increase in importance – results that vary little by region and size of company
- Public sector organizations showed a less advanced use of the network (57 per cent), while telecom service providers were most advanced (87 per cent)
- Skills certification is seen as important by 72 per cent of European organizations, particularly at time of recruitment. This is especially the case in public sector organizations
- The study behind the report also found that one third of respondents had recruited in the past 12 months, with half of these saying that it was difficult to find the right people with the right skills

² Under the revised Lisbon Strategy and i2010

³ According to the European Commission, 25 per cent of the EU's GDP growth and 40 per cent of productivity growth can be attributed to ICT. However, ICT represents only 18 per cent of all R&D investments in the EU, compared with more than 30 per cent in all major OECD countries.

Overall, the survey shows that the skills needed by organisations in Western and Eastern Europe are changing. Not only is the link between business and ICT becoming much clearer and stronger but also the convergence of the network with other IT technologies is creating a major change in the skills needed by IT related staff.

“While the UK is closing the skills gap in percentage terms, the massive number of people required to meet demand means British businesses will still face a significant challenge to ensure their growth plans are not stifled through a lack of trained personnel,” said Nick Watson, managing director – enterprise, Cisco Systems UK & Ireland.

“Some targeted investments in education and training could significantly reduce the figure. If organisations do not have the right skills to implement ‘hot’ technologies and e-business solutions they cannot benefit from the productivity gains they offer. This impacts productivity at all levels – personal, organisational, and UK-wide. Considering the UK’s productivity challenge to meet the competitive pressures from the emerging economies of China and India, it is imperative the skills gap is narrowed.”

Cisco is already actively encouraging students following its Networking Academy Program⁴ (<http://www.cisco.com/go/netacad>) to take more advanced networking courses.

“The shortages in networking skills vary by country and by region and each has a unique set of challenges for addressing any shortages. These include a need to attract students and unemployed back into IT-related jobs.”, said Marianne Kolding, analyst at IDC. “The model developed in the late 1990s with collaboration between employers, the ICT industry, and government bodies, may again prove to be a valuable approach for addressing the development and training of new skills in the coming years”, she continued.

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About Cisco Systems

Cisco Systems, Inc. (NASDAQ: CSCO), the worldwide leader in networking for the Internet, celebrates 20 years of commitment to technology innovation, industry leadership, and corporate social responsibility. Information about Cisco can be found at <http://www.cisco.com>. For ongoing news, go to <http://newsroom.cisco.com>. Cisco equipment in Europe is supplied by Cisco Systems International BV, a wholly owned subsidiary of Cisco Systems, Inc

Notes to editors

For a copy of the ‘*Networking Skills in Europe: will an increasing shortage hamper competitiveness in the global market*’ white paper, please visit

⁴ The Cisco Networking Academy Program provides a global e-learning curriculum designed to teach students how to design, build and maintain computer networks. The Program is run in over 10,000 high schools, colleges, universities, technical & military schools, community-based organisations and government training centres around the world.

<http://www.cisco.com/edu/emea>. Maps illustrating the skills gaps are also available on request.

Methodology

This white paper presents the results of the IDC study commissioned by Cisco Systems on the demand and supply of networking skills in 31 countries across Western and Eastern Europe in the period 2004-2008. It covers general networking and advanced networking skills (e.g. IP Telephony, wireless networking, and security). The countries covered are:

- Established EU Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the UK
- EFTA countries: Norway, and Switzerland
- Recent EU Member States: Czech Republic, Cyprus, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia
- Non-EU Central Eastern Europe (CEE): Bulgaria, Croatia, Romania, Russia, Turkey, and Ukraine

More than 950 CIO level telephone interviews were conducted across the following vertical sectors: Government, Telecoms, Healthcare, Education and Enterprise. Respondents represent organizations of all sizes with 36 percent coming from organizations of more than 1000 employees and the remainder of respondents evenly distributed across smaller size bands. Several face-to face interviews were also conducted with international and national ICT service providers.

TABLE 3

Advanced Technology Skills Gap Index

Description	2005		2008	
	Ranking	Skilled People Gap Estimate (Gap %)	Ranking	Skilled People Gap Estimate
Greece	1	1,100 (4.9%)	8	5,400 (13.1%)
Denmark	2	1,850 (5.6%)	11	7,700 (14.9%)
Ireland	3	1,200 (5.7%)	21	7,500 (18.7%)
Belgium	4	2,700 (5.9%)	14	10,100 (15.9%)
France	5	14,800 (6.1%)	4	40,300 (11.7%)
Germany	6	21,100 (6.1%)	17	87,800 (17.5%)
Switzerland	7	3,400 (7.0%)	3	7,300 (11.3%)
Italy	8	10,300 (7.0%)	2	20,800 (9.8%)
Sweden	9	3,400 (7.0%)	6	8,000 (12.2%)
UK	10	19,400 (7.0%)	1	39,500 (9.3%)
Finland	11	1,850 (7.1%)	13	5,300 (15.9%)
Spain	12	10,800 (7.1%)	12	41,800 (15.7%)
Netherlands	13	6,100 (7.3%)	10	16,700 (14.6%)
Austria	14	4,000 (8.2%)	19	12,900 (17.8%)
Portugal	15	2,500 (8.6%)	16	6,200 (16.4%)
Russia	16	11,400 (9.4%)	25	60,000 (24.5%)
Hungary	17	2,100 (10.5%)	9	4,800 (13.9%)
Poland	18	7,200 (10.5%)	15	18,300 (16.3%)
Norway	19	3,100 (10.6%)	5	5,700 (12.0%)
Bulgaria	20	900 (11.2%)	24	3,000 (20.6%)
Czech Republic	21	3,150 (11.5%)	7	5,300 (12.3%)
Slovenia	22	700 (12.1%)	29	2,400 (26.1%)
Slovakia	23	1,500 (14.1%)	20	3,200 (18.3%)
Lithuania	24	850 (14.3%)	22	2,000 (20.2%)
Croatia	25	1,250 (15.9%)	27	3,400 (25.2%)
Romania	26	4,400 (16.0%)	18	9,700 (17.5%)
Latvia	27	700 (16.5%)	26	1,800 (24.9%)
Estonia	28	400 (16.8%)	28	1,050 (25.4%)
Ukraine	29	5,200 (17.1%)	31	28,100 (33.5%)
Cyprus	30	150 (17.2%)	23	250 (20.4%)
Turkey	31	14,200 (22.9%)	30	31,900 (29.1%)

Note: *The skilled people gap is estimated on the assumption that - on average - people with networking skills spend 25% of their time using these skills.

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Red = 14.0%+ Gap

Yellow = 8.1%-14.0% Gap

Green = Less than 8.1% Gap

Source: 'Networking Skills in Europe: will an increasing shortage hamper competitiveness in the global market', IDC, 2005