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Threats to Services

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Background – National position

National Audit Office report – The UK cyber security strategy: landscape review

Opportunities

3bn people will be using the internet worldwide by 2016

8% of UK GDP accounted for by internet economy

£121bn value of UK internet economy in 2010

No.1 UK ranked as leading country in the G20 based on ability to withstand cyber attacks

Threats

44m cyber attacks in 2011 in the UK

80% of attacks could have prevented through simple computer and network 'hygiene'

£18bn-£27bn estimated annual cost to UK of cybercrime

Cybercrime ranked as one of top four UK national risks in 2010

Background – organisational position

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BIS commissioned – 2013 Information Security Breaches Survey

- Security breaches reach highest ever levels
  - % of respondents that had a breach – Increased
  - Average number of breaches in a year – Increased
  - Cost of worst breach of the year – Increased (avg £450k to £850k)
- Both external attack and insider threat were significant
  - 20% of large organisations detected penetrations of networks
  - 14% of large organisations know that IP or confidential data stolen
- Investing in security / evaluating spend effectiveness
  - An average of 10% of IT budgets now spent on security
  - 33% of responds don't try to measure effectiveness
  - Number and cost of incidents is most common measure
  - 12% of organisations try to calculate return on investment

Are Comparisons Valid?

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- PWC report based on 1402 responses 6% (84) responses within the education sector
- CSIRT recorded incidents within customer organisations are increasing
- CPNI have been working with a greater number of Universities suffering significant incidents
- Some evidence to suggest incidents are being under reported

Response

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- Develop Jisc Security Strategy
- Requires an organisational wide approach to information security (ISO 27001)
- Requires improved co-ordination and collaboration between everyone dealing with information security incidents (CSIRT)
- Need to develop methodology and approach to measuring success, characterising impact, economic benefit / return on investment
- Need to characterise the threat environment/landscape and be able to provide a baseline comparator
- Need to take an intelligence lead approach

Development programme

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a. Investigate aggregated procurement of vulnerability information
b. Develop automated systems to collect, identify, classify and prioritise threat information
c. Build and pilot automated systems for distribution of threat information
d. Pilot automated responses to 'threat intelligence' (firewall rules)
e. Investigate construction of capability to provide detailed analysis of customer networks based on a request or to support incident response
f. Support development of training material to help build awareness and skills
g. Improve co-ordination between Janet, customers and other agencies
h. Seek to gain external certification of Janet to ISO 27001


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Questions?