



Department
for Culture
Media & Sport

Cyber Security Apprenticeships for the Water Sector

January 2016



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Cyber Security Apprenticeships

- Does your organisation need more cyber security professionals?
- Are you keen to attract talented individuals starting out on a cyber security career path?

Your organisation could benefit from Government funding and support to achieve these aims through employing a cyber apprentice.

Background

The Department for Culture, Media and Sport (DCMS) has a stated aim of growing the UK economy and helping to increase digital connectivity. To deliver on these aims it is important to increase the pool of competent cyber security professionals, to ensure that businesses in today's interconnected world can operate safely and individuals who use their services online can do so securely.

Cyber Security presents both risks and opportunities. Last year 65% of large UK companies reported a cyber breach, with 25% of these experiencing a breach at least once per month and with each breach costing an average £36,500¹. Cyber Security also provides an excellent opportunity for economic growth with an estimated £17.7bn contribution to the UK economy last year. For the UK to remain a world leader in cyber security there is a need to rapidly increase the availability of skilled cyber security professionals in the UK and develop programmes that run across the skills pipeline, meeting the demand that currently outstrips supply.

¹ Information Security Breaches Survey 2016:
<https://www.gov.uk/government/publications/cyber-security-breaches-survey-2016>

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The Government is committed to ensuring the UK has the skills it needs to combat the cyber security threats facing the country and the wider economy, investing a further £1.9 billion through a second National Cyber Security Programme (NCSP2) over five years to 2020. This includes an ambitious new cyber skills programme. As a part of this programme, we are making a number of interventions, including a **cyber security apprenticeships** initiative for critical 'at risk' sectors. This initiative aims to support building a self sustaining pipeline of cyber security professionals by encouraging uptake of apprentices within critical sectors, including water.

Employers say that apprentices help to make the workplace more productive, bring in fresh new ideas and will help address the skills shortages prevalent in the cyber security profession. More widely, the Government is committed to establishing apprenticeships as an alternative but equal career path to higher education, significantly increasing the quantity and quality of apprenticeships in England and creating 3 million apprenticeships by 2020.

This focus on apprenticeships in critical sectors compliments current measures under the NCSP2: a schools programme to help children cultivate and develop cyber security skills outside of the classroom and a pilot aimed at transitioning skilled workers in related areas into cyber security careers through retraining. The apprenticeships project builds on initiatives to improve cyber security skills at every stage of education and training, begun under the first £860m National Cyber Security Programme, and follows successful cyber apprenticeship programmes within Government.

Government Offer for 2016-17

DCMS developed an offer for employers to take on new starters on the Level 4 Cyber Security Apprenticeship Standards in the financial year 2016-17. The offer applies to the two new cyber standards that employers may choose from: [Cyber Security Technologist](#) and [Cyber Intrusion Analyst](#). Information regarding these standards, including the accompanying occupational briefs and assessment plans, can be found here:

<https://www.thetechpartnership.com/standards-and-quality/trailblazer-apprenticeships/available-now/>

The terms of the offer are:

- i) We will procure an organisation to do the initial **marketing and recruitment** of cyber security apprentices for the sector. We will work closely with the organisations who wish to take on cyber

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apprentices to define what the tender will look like including application criteria, geographical spread etc. The final decision on recruitment will be left up to the employing organisation.

- ii) We will **fund training** for those cyber security apprentices who are part of this programme. Currently funding support is split between industry and government. We will supplement the existing government support making training cost-neutral for employers.

Additionally, we will work with Government partners (including GCHQ) and the working group to **procure a training provider** to deliver the academic portion of the apprenticeship.

We will also **fund additional training** beyond that set out in the apprenticeship standard, if the sector has indicates that this would be an essential element of training cyber apprentices. We will look to develop a cohort-approach where water sector cyber apprentices will study together to complete the same education modules.

- iii) We will fund the **end point assessment** stage for cyber security apprentices in this sector. As part of the Government's drive to ensure all apprenticeships are rigorous and challenging, all new apprentices must complete an end point assessment that will test their knowledge, experience and understanding.

We have convened an **Critical Sector Apprenticeship Working Group**, which has informed our approach to supporting industry in this initiative, is helping to shape the project to meet employer's needs and is providing a forum for sharing best practice. The working group has fed in requirements for procurement of services which DCMS are now tendering for. Membership is open to industry stakeholders who wish to participate as employers or advisors to the programme. Organisations may also benefit from our offer as employers without joining the working group, or simply ask to be kept updated as developments occur.

We plan to support at least one cohort of apprentices this financial year. This cohort will start at the end of March 2017 and we encourage interested organisations to seize this opportunity to pilot and build their cyber apprenticeships programme in preparation for the introduction of the Government's Apprenticeships Levy from next year, as well as benefitting from the financial incentive we are offering. Any apprentices who start on this

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pilot before the levy is introduced will continue on the same funding model throughout their apprenticeship, expected to take two years.

Government Offer for 2017-18

From 6 April 2017, the way the Government funds apprenticeships in England is changing. All employers operating in the UK with a pay bill over £3 million each year will be required to make an investment in apprenticeships. Organisations can benefit from this investment by training apprentices. Information on the levy (including details currently under consultation) can be found here:

<https://www.gov.uk/government/publications/apprenticeship-levy-how-it-will-work/apprenticeship-levy-how-it-will-work>

We remain committed to incentivising organisations within critical sectors, including the energy sector, to take on cyber apprentices beyond this financial year. However, because the offer made for 2016-17 was ahead of implementation of the Government's Apprenticeship Levy in Spring 2017, it is unlikely that it can be extended in its current form. We are working with our colleagues in Government to consider any further offer and how it might operate once the levy is in place, and subject to continued funding through the National Cyber Security Programme 2.

Any offer for 2017-18 is likely to retain the project's support in selecting marketing, recruitment, training provision and end point assessment organisations, should that remain desirable. We will also be considering further incentives, including financial incentives, and will inform stakeholders of our offer for 2017-18 as soon as we are in a position to do so. We are conscious of the need to align with industry processes for financial planning for next year.

In the meantime, we would urge you to consider the need for cyber security professionals within your organisations in the context of the introduction of the levy and to include cyber apprentices in your financial planning so that you can take advantage of any offer for 2017-18, when we expect the first cohort to be starting in the autumn.

Next Steps

Please contact us if you wish to benefit from this offer, have any questions or would like more information. You may also request to be a member of the

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working group or put on the mailing list for updates. We welcome any comments and views on the programme from members of the sector.

If you are interested in being an apprentice employer under this initiative, we would be grateful for the following information upon contact:

- an initial view on whether you could take on apprentices as a part of this programme in financial year 2016-17 and/or 2017-18;
- an initial indication of how many vacancies you would be looking to fill; and
- any preference between the two existing level 4 cyber security apprenticeship standards.

Please direct all communications to: Eleanor.West@culture.gov.uk and Alex.Pytka@culture.gov.uk .