

PFCC Decision Report

Report reference number: 111-20

Classification: OFFICIAL

Title of report:
Remote Working Infrastructure (VPN Replacement) Stage 2 Business Case

Area of county / stakeholders affected: Countywide

Report by: Anthony Leadbetter (Head of Infrastructure)

Date of report: 14/10/2020

Enquiries to: Phillipa Marques (Programme and Project Office Manager)

1. Purpose of the report

To request **£135.4k capital, £6.3k one-off revenue and £9.8k recurring revenue funding in 2020/21** for Cisco AnyConnect remote working infrastructure to replace the current accredited encryption software (Virtual Private Network (VPN)). **In 2021/22 £39.4k recurring revenue funding is required, but there are anticipated savings of (£6.8k) p.a. from 2022/23 onwards.**

The anticipated timelines are:

- Approval of the business case by the PFCC Strategic Board and PFCC – September 2020
- Procurement, High Level Design and Low Level Design – September – November 2020
- Implementation – December 2020 - January 2021

Cisco AnyConnect will be the VPN solution on the next version of Windows 10 1909 which is due to be ready for deployment at the end of 2020

2. Recommendations

It is recommended that £151.5k for financial year 2020/21 is approved to enable the replacement of the current accredited encryption software. Funding from Essex will

be split into £135.4k capital, £6.3k setup revenue and £9.8k recurring revenue, and £39k recurring revenue from 2021/22 onwards with (£6.8k) recurring savings from 2022/23 onwards, as set out in section f of the Stage 2 Business Case.

3. Benefits of the proposal

Technology accessible from force laptops (including over 200 operational IT systems, Jabber and Teams for messaging, calls and video conferencing, the email system, and the intranet and wider internet) can only be accessed via a VPN solution that is accredited for policing. During the lockdown period, all officers and staff who could carry out their roles based remotely using technology were required to do so under Government advice.

The capability to have over 3,500 staff remote working during this period is acknowledged by both Chief Constables to have been a key driver behind the low absence rates in each force (less than 3%), which have been the best across all UK police forces. Looking ahead, both forces are undertaking strategic reviews of how and where we work in the future, with a focus on remote working in various guises enabling a review of the Estates Strategy, driving cost savings and efficiencies (e.g. through Op Zenith in Kent and the Op Talla Recovery Board in Essex).

A replacement VPN solution which is appropriately designed and scaled to the current and future requirements for both forces' workforces to work fully in an agile and remote manner is an essential requirement for both police forces to function effectively.

4. Background and proposal

The project will replace the current Essex Police and Kent Police accredited encryption software (VPN – virtual private network). The VPN software provides a secure connection for all police data transmitted from a wi-fi / internet connection to our force network, required for all laptop users who are remote or agile working, and is a mandatory requirement via the Home Office / NPIRMT for our PSN accreditation. The current product was due for renewal in 2021/22 as part of the IT Tech Refresh annual investment process, but recent demands in the volume of remote workers (including home workers and staff working using wi-fi in other buildings but not wired in to the network) as a result of the COVID-19 pandemic have necessitated an earlier replacement of this solution to ensure that IT can support the organisational requirements to access policing IT systems from any locations reliably and resiliently.

The current VPN solution is a Microsoft product called 'Direct Access'. While this is used by many companies across the world, it is an older product which was due to be replaced by IT Services as part of the annual Tech Refresh process in the 2021/22 financial year. It was originally built and designed five years ago to cater for a maximum of 5,000 simultaneous connections (around 33% of our workforce), in the context of a maximum of around 450 simultaneous users pre-COVID-19. However, across the last three months of lockdown, we have experienced a maximum of 3,500 simultaneous remote workers at key parts of the working day, and this volume of users (in addition to the size of the data files they are transmitting across the network) has at times pushed the VPN system to its maximum in terms of connection speed, ability

to view police systems and websites hosted on the internet, and performance stability retaining the connection.

5. Alternative options considered and rejected

It is proposed to purchase Cisco AnyConnect. This is proposed for reasons of:

- economic pricing
- product alignment
- supplier experience with the policing market
- 7 Force collaboration alignment (Norfolk and Suffolk use Cisco Any Connect and Beds / Cambs / Herts will replace their Direct Access solution next year to align with the rest of the region)

Whilst there are many VPN solutions available commercially, there is a limited number that are accredited for the security design for police force networks in the UK by the NCSC (National Cyber Security Centre) and Home Office NPIRMT (National Policing Information Risk Management Team). The three main options are summarised below:

- NetMotion Mobility** is an enterprise VPN solution which offers comprehensive security and software defined managed processes for remote workers. A great deal of the functionality available within the product is not required as part of providing a VPN solution. One example is application management which we will not need, as this is completed by the incumbent solution of Microsoft Configuration Manager (SCCM) which is going to be improved with the incoming InTune solution as part of the NEP Design Refresh. The Police ICT Company has been negotiating a discounted price for policing of £33 per user per annum which is circa £465,000 per year for both forces in total, as an annual revenue cost. Hardware and consultancy for implementation has not been scoped due to prohibitive annual licensing costs.
- Cisco AnyConnect** is an enterprise VPN solution that enables secure access for remote workers. AnyConnect provides visibility and control to identify who and which devices are accessing the enterprise network. AnyConnect is being widely adopted in policing as a cost-effective replacement for DirectAccess. We anticipate that we will use AnyConnect for laptops initially as a replacement for DirectAccess, and in due course replace BES (the VPN solution for our mobile phones) with AnyConnect. AnyConnect licensing for a five-year agreement is £1.75 per user per annum which is circa £26,250 per year for both forces in total. The initial assessment for hardware to provide the estimated requirements to support performance, resilience and capacity is £270,782. Support and maintenance of the hardware is a requirement which is procured at the time of the hardware purchase and is £273,812 over the five-year lifecycle of the solution.
- Microsoft Always On VPN** is the direct replacement for DirectAccess which is currently being used. Always On VPN is not currently an accredited solution by the NCSC, NPRIMT or the NEP. As such it cannot be considered at this time as a replacement for the existing DirectAccess VPN currently in use by Kent Police and Essex Police.

6. Police and Crime Plan

Having an IT infrastructure that is performant, resilient and available will ensure that police officers and police staff have access to IT systems to help meet the priorities within the relevant Police and Crime Plan priorities for the Kent PCC and the Essex PFCC.

The Essex PFCC's Police and Crime Plan states the commitment to “investing in new technologies to enhance the way we work”

This business case will support the provision of a solution that provides remote functionality for all users, which will deliver an efficient and accessible capability that will provide increased service delivery and access to police systems in an agile and flexible way. As a result of the flexibility provided by remote working, streamlined processes can be adopted to support modern working which will in turn generate greater efficiencies in the delivery of services in the policing environment.

7. Police operational implications

This solution is a critical enabler / dependency for future force plans to utilise the force estate more efficiently, with a higher proportion of staff working in an agile fashion, and potential to increase the sale of police buildings (through Op Zenith in Kent and the Essex Strategic Estate Board).

8. Financial implications

f. SUMMARY OF COSTS												
(Page 11 for detail costings)												
	YEAR 1		YEAR 2		YEAR 3		YEAR 4		YEAR 5		TOTAL	
	2020/ 2021		2021 / 2022		2022 / 2023		2023 / 2024		2024 / 2025			
	£k		£k		£k		£k		£k		£k	
	KENT	ESSEX	KENT	ESSEX	KENT	ESSEX	KENT	ESSEX	KENT	ESSEX	KENT	ESSEX
Capital	135.4	135.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	135.4	135.4
Revenue												
Set up	6.3	6.3	0.0	0.0							6.3	6.3
Recurring	10.4	9.8	41.8	39.2	41.8	39.2	41.8	39.2	41.8	39.2	177.6	166.6
Tot Rev	16.7	16.1	41.8	39.2	41.8	39.2	41.8	39.2	41.8	39.2	183.9	172.9
Costs	152	152	42	39	42	39	42	39	42	39	319	308

Capital – There is a funding gap of **£0.135m** for 2020/21. It is proposed to request this sum is added to the external borrowing requirement used to fund the capital programme. However, if potential underspends are identified across the total IT Programme portfolio during the year, they will be used to address the funding gap in 2020/21.

Revenue - In 2020/21 there is a funding requirement for revenue costs of **£0.016m** in total; one-off of (**£0.006m**) and recurring of (**£0.010m**), with a full year effect of

£0.039m in 2021/22. Work is ongoing to identify savings within the IT Programme portfolio primarily within its 'Subject to Approval' category.

For 2022/23 and future years there is a net reduction of **(£0.007m)** in recurring revenue costs, which takes account of the ongoing cashable savings for the current Direct Access solution.

9. Legal implications

None identified.

10. Staffing implications

The project will be managed and delivered within Support Services IT.

11. Equality and Diversity implications

An Equality Impact Assessment will be carried out as part of the project lifecycle.

12. Risks

Not proceeding carries risks, including lack of security and the inability for remote working to enable delivery of business as usual.

13. Governance Boards

This proposal has been discussed and approved in principle at the following boards:

Digital Transformation Oversight Board 27/07/2020
Chief Officer Group 12/08/2020

14. Background papers

Appendix: Stage 2 Business Case



Stage 2 Remote
Working Infrastructure

Report Approval

The report will be signed off by the PFCC Chief Executive and Chief Finance Officer prior to review and sign off by the PFCC / DPFCC.

Chief Executive / M.O.

Sign:



Print: P. Brent-Isherwood

Date: 14 October 2020

Chief Finance Officer / Treasurer

Sign:



Print: Elizabeth Helm

Date: 20 October 2020

Publication

Is the report for publication?

YES

NO

If 'NO', please give reasons for non-publication (Where relevant, cite the security classification of the document(s). State 'None' if applicable)

.....
.....N/A.....

If the report is not for publication, the Chief Executive will decide if and how the public can be informed of the decision.

Redaction

If the report is for publication, is redaction required:

1. Of Decision Sheet?

YES

2. Of Appendix?

YES

NO

NO

If 'YES', please provide details of required redaction:

.....
.....N/A.....

Date redaction carried out:

Treasurer / Chief Executive Sign Off – for Redactions only

If redaction is required, the Treasurer or Chief Executive is to sign off that redaction has been completed.

Sign:

Print:

Chief Executive/Treasurer

Date signed:

Decision and Final Sign Off

I agree the recommendations to this report:

Sign: 

Print: Jane Gardner

Deputy PFCC

Date signed: 20 October 2020

I do not agree the recommendations to this report because:

.....
.....
.....

Sign:

Print:

PFCC/Deputy PFCC

