

PROJECT BRIEF	Document Ref & Version No: F0377855 ver1.0
Project: CUBE and SIP upgrades	
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Purpose:

This document has been produced to capture a “first cut” view of the scope, investment needed, dependencies on other projects and anticipated payback so that the constituent parts of the Project/Programme can be prioritised, funded and authorised. The Project Brief will provide the basis for the Project Authority (Project Board) to decide to authorise the creation of the Project Initiation Document (PID).

Background:

NCC can currently receive 90 calls simultaneously. When this limit is exceeded citizens get an engaged dial tone when they phone us. Analysis of current call usage shows that at peak times we use 96% of the available call capacity. The work planned by the Customer Service Programme and other customer facing projects is likely to increase the pressure on this service. There is therefore an increasing risk that Nottingham citizens will receive an inadequate telephony service. This project will increase the available call capacity, modernise call management capabilities and so reduce the risk of an inadequate telephony service.

Customer phone calls reach NCC via Cisco Unified Border Elements (CUBE) which works in tandem with an Integrated Services Routers (ISR). The ISR/CUBE combination manages both the licensing and call routing, and also collects data which will enable improved business call analysis. The voice circuit connections, SIP trunks (Session Initiation Protocol) will need to be upgraded at the same time. This project will replace the two current ISR/CUBEs and double the available call capacity.

The project will also migrate the ISDN channels used by the Macfarlane Contact Centre onto the upgraded CUBE and SIP trunks, then cease the ISDN channels. This change will alter the way that public calls to the Contact Centre will reach the Macfarlane Call system, but the change will be invisible to both citizens and the internal users of the service. The migration will increase phone line resilience by enabling SIP trunks to both Loxley and Woodthorpe Grange. Currently the ISDN circuits only terminate at Loxley House, a potential single point of failure.

The upgraded technologies will also improve the call management capabilities; call reporting; security; and improve the speed and flexibility of business requested telephony service changes.

<http://www.cisco.com/c/en/us/products/unified-communications/unified-border-element/index.html>

Objectives:

- Increase the call capacity at NCC from 90 to 200 concurrent calls. New SIP trunks.
- Replace the current Cisco Integrated Services Routers (ISRs) 2900 series with newer faster Cisco ISR 4351.
- Improve call resilience, by migrating from ISDN connections with a single Loxley House termination point to SIP trunks which can be load balanced between Loxley House and Woodthorpe Grange.
- Improvement in the management capabilities and flexibility of deployment.
- Improve call monitoring and reporting facilities.

Scope:

Virgin Media supply all the SIP Trunks used by NCC voice systems. This sole supplier position was awarded to Virgin Media, following a competitive tender process in 2015.

- Upgrade of the ISR (Integrated Services Routers) at Loxley House and Woodthorpe Grange and the associated SIP licenses.
- Macfarlane testing and business sign off.
- Macfarlane ISDN line cancellation. (aka Q931)

Outline Deliverables (Products):

- Two Cisco ISR 4351.
- Upgraded CUBE licenses
- Cease the Macfarlane ISDN lines, migrate to the increased capacity SIP trunks
- Testing and confirmation of new Macfarlane call connections

Assumptions:

- No competitive procurement process will take place for the purchase of these products. Delivery of this service is part of the exclusive Virgin Media contract awarded in 2015 after a competitive process completed alongside Procurement colleagues.
- IT's Network team will work alongside Virgin Media to complete the change.
- The migration will take place out of office hours to minimise the public impact.
- Woodthorpe Grange will remain as NCC's disaster recovery location for the duration of the project.
- The exchange rate changes will not have a major effect on the price of the goods (they are priced in \$)

Outline Business Benefits/Business Case:

- Increase in call capacity to reduce the high risk of a citizen being unable to call NCC.
- Enable a future increase in call capacity – Customer Service Programme.
- Significant performance improvement. The new 4000 series ISR’s are reported as ten times faster.
- Improved network security capabilities. Cisco Firepower® Threat Defence available with the 4000 series ISR
- Improve the response times, flexibility and manageability of calls, and business requests to changed requirements
- Improve the business intelligence and reports available on calls made to NCC

Customer’s Quality Expectations:

They will be able to call NCC during office hours without the potential of getting an engaged tone.

Financial/Budget Requirements:

See Virgin Media quote BN1091631751

NB Price Reduction of £3,000 in Virgin Professional Services has been negotiated since this quote was received. This change is reflected below.

Hardware	8,541.34
Software: (Integral with the hardware)	0
Services: Virgin Professional services	15,325.00
Other: Unified Border Element Licenses	15,861.28
Other: Virgin Connection Charge	500.00
Total investment:	40,227.62

The Hardware Annual Maintenance hardware charge increase of £1,172.69 will be met from IT’s Revenue budget.

The Virgin media quote shows a monthly SIP channel rental Increase of £1,841.57. This will be exactly offset by the cancellation of the current ISDN lines (Q931) where NCC are charged £1.841.57 per month.

An ITEF bid is in place to meet the Capital expenditure requirements.

Resource Estimates

Server -	0
Voice & Data -	20 days
Application Change -	0
Application Management	0
Project Office -	3days

Technical Design Implications

Timing:

To be agreed with Virgin Media and the Business user representatives. 1st Quarter of 2017

Additional Comment: