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County Council



# Digital Strategy Update

## Corporate Select Committee

**Geoff Connell – Director of IMT**  
**14<sup>th</sup> November 2022**

**CONNECTED**  Britain  
IoT Winner 2021

**CONNECTED**  Britain  
Digital Council of the Year 2020

**I will provide updates on:**

**1. Digital Connectivity**

- 1. Broadband & FWA**
- 2. Mobile**
- 3. Sensor networks**

**2. Digital Programme Summary / Highlights**

**3. IMT Management Dashboards**

**Then seek the views of the committee**



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# Broadband

# Superfast & Ultrafast coverage

# Broadband - Public Sector Led Activity

- We have come a long way with the Better Broadband for Norfolk (BBfN) Superfast Programme. In 2012 we had 42% coverage, its now > 96%
- BBfN phase 3 (funded through gainshare) will connect another 9,000 homes to gigabit / ultrafast FTTP by Winter 2023, raising coverage to over 97%. >4,000 premises have been connected so far
- Ultrafast (Gigabit 1000mbps capable) broadband is now > 46% (it was 14% 9 months ago)
- The DCMS/BDUK Funded LLFN project is now complete with 394 public sector buildings connected to full fibre for higher speeds at lower cost. Including many Schools, Libraries, Council Offices & Fire Stations.  
To date an additional >4,600 premises have benefited from LLFN, and now have Ultrafast Broadband available.
- The DCMS/BDUK funded Project Gigabit will connect up to 86,200 rural properties that are not considered commercially viable to the private sector for £114M  
The contract is expected to be awarded early 2023.
- We have successfully applied for £400k of DLUHC/LEP Funding for an LLFN FWA project for the public sector buildings such as rural village halls that could not be connected by LLFN.
- Note apart from a very small NCC Team, all of the above are externally funded by DCMS, DLUHC/LEP, Defra & Openreach (through gainshare due to above expected take-up under the BBfN Contract)

# Broadband – Private Sector Led

- Inward investment is currently running into hundreds of millions of pounds from the private sector for gigabit capable fibre broadband in commercially viable locations
- Virgin Media have upgraded their cable to ultrafast. Openreach & City Fibre are most active
- Other companies, most notably County Broadband, Upp, Lightspeed and Netomnia are actively building Ultrafast Broadband networks across Norfolk, enabling faster connections, more choice and healthy competition, sometimes also increasing coverage
- Broadband coverage and speed improvements are progressing well across the county, and will see further significant improvements once Project Gigabit moves into the delivery phase (early next year).





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# Mobile

**EE, Vodafone, O2 & Three  
Shared Rural Network,  
public assets & small cells**

# Mobile Coverage

- Mobile is the most difficult area of digital connectivity to improve as we cannot directly invest like we do with broadband.
- 2&4G (voice & data) coverage is gradually improving and 5G is now available in the most dense urban parts of the County.
- There remain significant gaps in coverage.
- The Shared Rural Network (SRN) is a £1Bn joint investment between DCMS and the four mobile network operators to first address partial “not spots” and then total “not spots”. The procurement launched in November 2021 the work is due for completion by the end of 2025 enabling combined coverage of 95% across the UK (though stated coverage levels are “optimistic” at best).

## **We have undertaken the following activities to improve coverage?**

- Worked with highways and our PFI provider to develop a licence agreement for mobile operators to mount mobile equipment on our street lighting.
- Lobbied MNOs to help facilitate improvements.
- Commissioned two drive studies (since 2018) to ensure mobile network operators know where real life coverage gaps exist.
- Developed initial agreements to enable MNOs to install their equipment on our sites.
- Continue to lobby MNOs to work with us to trial small cells to top up the signals from masts.
- **Following discussion with SRN it appears that the majority of the investment will concentrate on the devolved administrations, particularly Scotland. We continue to communicate to SRN but it appears that Norfolk will not benefit greatly from the programme.**
- **We could consider directly funding local initiatives such as setting up continuous coverage monitoring to lobby the MNOs, publishing standard terms to access all our sites and land and also publishing a database of our Norfolk CC infrastructure asset data.**



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# Sensor / IoT Network From Pilots to Full Coverage In Under 3 Years (LEP Funded)

NORFOLK & SUFFOLK  
**INNOVATION**  
— NETWORK —



 **CONNECTED**  
IoT Winner 2021

 **CONNECTED**  
Digital Council of the Year 2020





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# The **largest** free-to-use public sector IoT Network in the UK

NORFOLK & SUFFOLK  
**INNOVATION**  
— NETWORK —



# Gateway Locations



# 96 Gateways Deployed in Norfolk as at July 2022

# Planning for 110 external & 25 internal (in Norfolk)





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# Use cases

Building Efficiency

Archive Store Monitor

Walking Trails



Assisted Living



Winter Gritting



Crop monitoring  
Water level monitor

Signal fault monitor



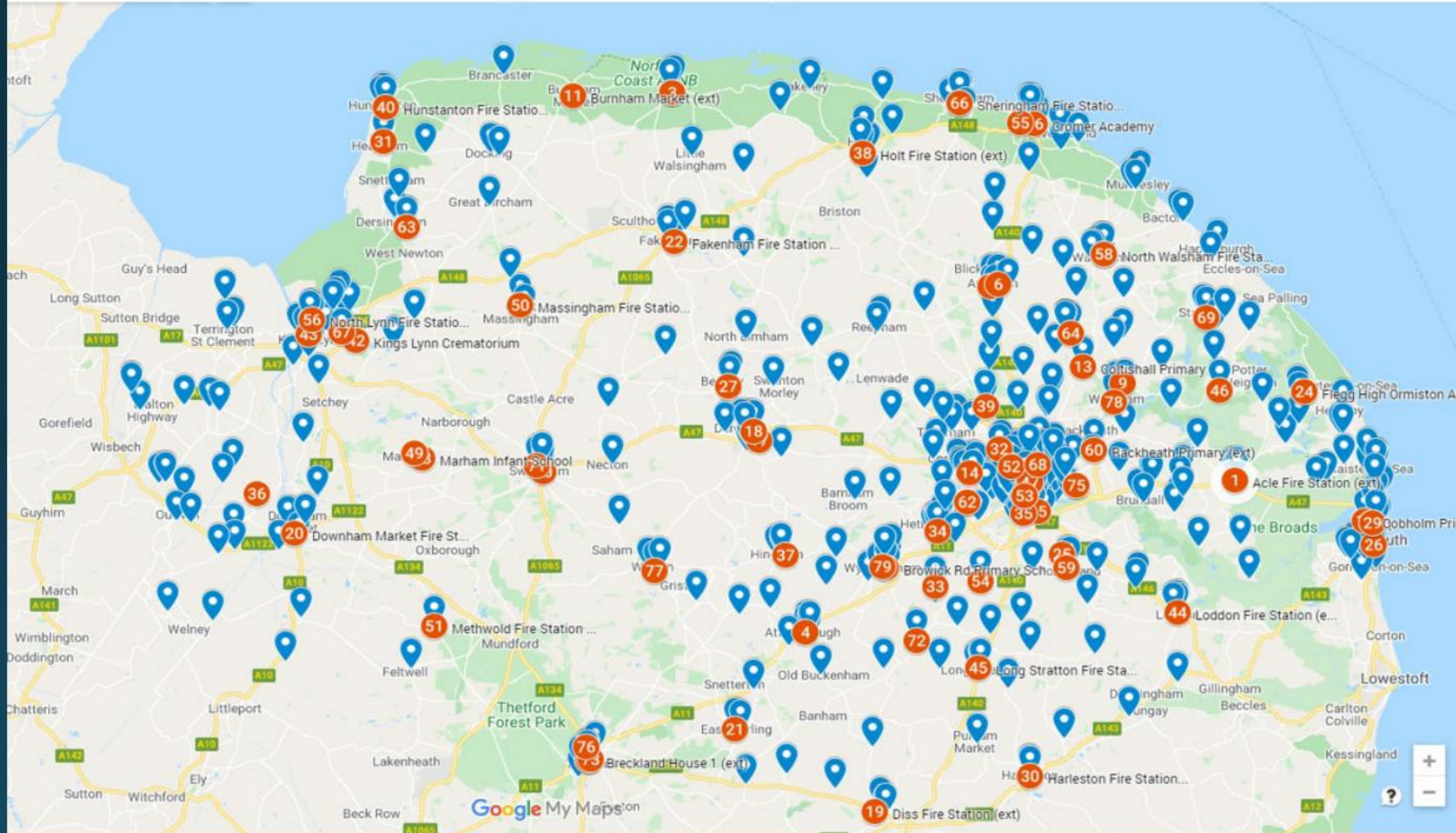
Traffic Flows







## Norfolk Gateway Coverage





☰

Building Sensor Explorer

🌐

Text Filter

Cromer Library

1

Last updated: never

>

Gorleston Library

1

Last updated: never

>

Wroxham Library

1

Last updated: 3 minutes Ago

>

Sprowston Community ...

2

Last updated: 4 minutes Ago

>

Priory House

1

Last updated: never

>

Havenbridge House

1

Last updated: never

>

Dereham Community H...

1

Last updated: never

>

Locations: 9



Sprowston Community Hub

Monitoring 2 Sensors

18.9°C

Partly sunny



uniotec-nccproperty-008

▼

13/07/2021, 16:25:36

3.66V



Battery

62%



Humidity

21.4°C



Temperature

Full Report 

Data Services

PoC Screenshots





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# Focus areas for 2022

Working on developing use cases  
to support wider regional priorities  
& enabling business growth.

**Smart high streets:** digital cities, towns, villages and communities.

**Heath and social care:** supporting social care.

**Environmental:** natural capital, water management (protection/monitoring), net zero.

**Crime and protection:** Rural crime

**Agriculture:** Smart farms

**Hospitality:** incentivising sales; tracking visitors

**Education:** Increase awareness and skills

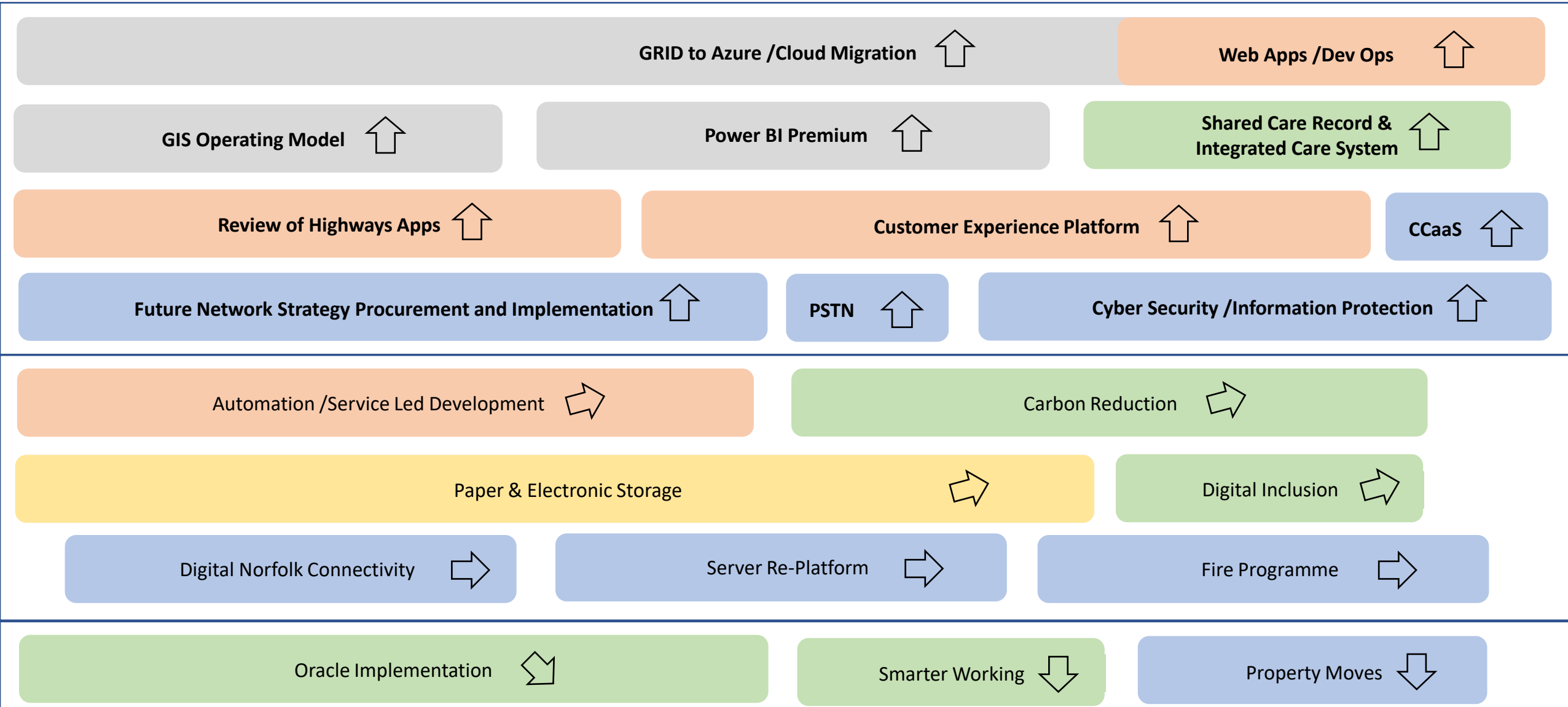
# IMT Digital Programme Summary

- **Current projects on the IMT Programme = 158**
- 131 - Active
- 6 - Not Started
- 21 - On hold
  
- **Project closures this calendar year (Jan - Aug 2022):**
- 95 - Closed
- 11 - Cancelled
  
- **Project closures since April 2021 to date:**
- 189 - closed (completed)
- 20 - cancelled (not completed)

# Digital Strategy Highlights 2021-22

- **My Oracle:** Oracle Fusion cloud ERP system now live. The next phase of the project is to optimise the system and drive out further benefits.
- **Digital skills development:** Microsoft change agent & technical courses, numerous work placements and apprentices (including our 2<sup>nd</sup> year of UEA undergraduate placements), enabled services to develop Power Apps.
- **Cyber Security:** Implemented various enhancements such as improved immutable backups to protect us against ransomware, zero trust developments, extensive server & OS/DB upgrades, extended use of MFA.
- **Digital Connectivity:** Local Full Fibre Network completed, Project Gigabit progressing, 95 LoRaWAN Gateways live, new schools broadband framework, upgraded network equipment at all Fire Stations, LAN refresh.
- **Smarter Working programme:** Delivered Immersive tech to enable hybrid meetings Replaced ageing audio visual and power facilities at all Fire stations
- **Property:** County Hall IT refresh, installed IT infrastructure in 10 new properties, decommissioned IT at 14 properties, supported 7 property relocations, 3 major office refurbishments, Council Chamber tech refit.
- **Norfolk Fire & Rescue ICT service:** fully integrated into the corporate IMT service.
- **Apps & Automation**
  - **RPA:** New RPA development service, 35+ solutions now live across our various customer departments enabling Significant customer efficiencies and savings. Also created centre of excellence for PowerApps, RPA & other low-code solutions.
  - **PowerApps:** Developed several tactical solutions, such as supporting our post pandemic return to office, Car parking, Desk booking, Lone Worker and corporate vital signs Apps
  - **Covid apps:** Norfolk Outbreak Management (NOMs) and integration of Norfolk Vulnerability Hub (NVH) to support Public Health's response to the pandemic, vaccination rollout systems, .
  - **WebApps:** Delivered Go Digital business support offer for Norfolk SMEs , Delivered Adults Social Care OPEL (Operational Pressures Escalation Level), Various new payment integrations.
- **Carbon Reduction:** Decommissioned Avaya (7000xNortal/Avaya telephones, & 38 network devices, dashboards to baseline & measure progress towards 2030 net zero target. Testing extending laptops from 4 to 5 years.
- **Data Engineering :** Developed cloud capabilities & supported the collection and usage of data for various Covid response systems, capacity tracking for Care Homes and CQC locations, Avian flu outbreak management, Adult dashboards.
- **Customer Experience Programme:** Progressing with the process of specification and procurement of refreshed digital systems and processes.
- **Schools IT – traded service :& Digital Inclusion:** Delivered 1400 devices to support digital inclusion, Procured a new schools framework for connectivity, Microsoft Education Partner & Global Training Partner, Became a Google Education Partner, Cyber Security audit carried out in conjunction with Norfolk Audit Services, Procured a new schools framework for telephony , Integration between Synergy and Schools MIS systems for attendance data collection
- **Operational:** Increased the uptime for operational services which is better than any other year meaning in spite of Covid-19 and resourcing climate , Implemented a Zero touch service for deployment of equipment to new starters , Refreshed 1850 laptops.
- **External Recognition:** Connected Britain IOT 2021 Award, RPA - The Best Newcomer Award" – EMEA ALL-STAR WINNER 2021, IESE Public Sector transformation awards Bronze Winner 2022, Socitm member of the year & New Socitm Vice President from NCC

# 2022/23 Programme Focus and Resource Priorities



## Customer Experience Programme

### Procurement & Implementation

Update  
**01**

#### Last period

- Final stages of Statement of Requirements development ahead of a procurement exercise starting September
- Scope is replacement and modernisation of customer facing applications supported by the Applications Service, primarily CRM and CMS
- Began developing requirements to support Partnership and Community working
- Finalising papers for Cabinet to formally approve the procurement exercise
- Shaping up the Single View of the Customer initiative through current state analysis, and early market engagement with specialist suppliers

#### Next period

- Approval to proceed paper presented to August Cabinet
- Develop procurement documentation with Procurement Lead
- Continue development and validation of current state business processes and requirements to support procurement and prepare for implementation planning
- DPIA development to ensure data protection implications are understood
- Launch a cross NCC 'Single View of the Customer' working group

For further information speak to Pete Henley, Ben Wickerson (Single View) or Holly Plumb (CRM)

## Infrastructure Programme - LAN/Wi-Fi Refresh

Update  
**25**

#### To Date

- LAN & Wi-Fi refresh installations to x188 remote sites complete (x14 more since April update)
- Final phase is Norfolk Fire and Rescue sites with x37 Fire Stations upgraded since February
- Last x7 Fire Stations scheduled for upgrade in June
- Software upgrade on core switches successfully completed

#### Next period

- Complete all installations scheduled for June
- Complete scheduled maintenance on Wi-Fi Agile controllers
- Close Project

For further information speak to Kurt Frary, Victor Moraru or Nick Killington

## Future Network Programme

### Procurement & Implementation

Update  
**03**

#### Last period

- This will replace current network services with a modern network by 31/03/24 (end of Capita contract)
- WAN SOR issued to suppliers 28/06/22
- Schools SOR issued to suppliers 23/05/22
- Cisco Umbrella (secure web gateway)/dual tunnel rollout ongoing – next 100 users approved by CAB
- Monthly Programme Boards ongoing

#### Next period

- WAN: evaluate responses Jul/Aug, award August, contract commencement date 1<sup>st</sup> Sept (will enable managed transition of services over next 18 months)
- Schools: evaluate responses July, award August, framework live 1<sup>st</sup> Sept for schools to procure from
- Cisco Umbrella/dual tunnel rollout ongoing – target date to be set for all users to receive
- Eight proof of concept direct internet access circuits (ordered from MLL/BT) to be delivered
- Ongoing liaison with Capita re Exit Plan; Capita to confirm whether current CCaaS platform is available to NCC until end of contract

For further information speak to Steve Cunningham, Andy Digby or Kurt Frary

## Server Re-platform Programme

Update  
**24**

#### To Date

- 38 NCC W2K8 Servers remaining, a reduction of 8 servers since last update
- 18 NCC SQL W2K8 databases remaining, a reduction of 10 databases since last update
- 235 NCC 2K12 Servers remaining, a reduction of 3 servers since last update
- 258 NCC SQL 2K12 Databases remaining, a reduction of 4 databases since last update

#### Key Successes:

- 4 x Schools W2K8 Servers decommissioned
- W2K8 Licencing Server decommissioned
- Visual Files reporting servers and databases decommissioned on both W2K8 and 2K12

#### Next Period

- Work with SCOM continues to migrate off W2K8 infrastructure
- 2019 Web Server build sign off for Web Apps Team to start migrations
- 2 x Elections Servers to be decommissioned
- Begin Inplace upgrades on 2K12 servers

For further information please speak to Christian King or Nick Killington



## Immersive Meeting Room Technology

Update  
2

### Last Period

- Following the acceptance of the detailed room designs installation work started during May and is now complete
- 32 Yealink meeting room solutions have been commissioned at NCC offices across the County:
  - County Hall (21)
  - Havenbridge House (3)
  - Priory House (2)
  - Children's Services Community Hub Bowthorpe (3)
  - Fire HQ Wymondham (1)
  - Fire Training Centre Bowthorpe (1)
  - Gressenhall Rural Life Museum (1)
- Detailed Instructions have been prepared explaining how to use the equipment
- Enhanced support arrangements have been defined and are about to be implemented and advertised
- Room designs have been provided for Elizabeth House Dereham

### Next Period

- 2 installations are on hold pending the completion of office refurbishment works at Priory House
- Communications will be issued using various channels to inform staff of the new equipment and how to get best use from it, including video tutorials and in room instructions
- The Outlook room information will be enhanced to include more detailed information about the equipment in each room

## Property Programme

Update  
36

### Last period

- Completed network infrastructure installations & desktop set up at:
  - Great Yarmouth Crematorium Tea Rooms
  - Heather Cottage for Children's
  - Royal Norfolk Show
- Completed decommissioning works at:
  - Downham Market Town Council for Registrars
- Completed power installs at all 42 Fire stations

### Next period

- Progress installation works for the following projects:
  - Depwade Court for Independence Matters
  - Gressenhall Museums
  - Registrars, 2 x locations
  - Hindolveston for Children's Solo/Dual Residential
  - Watton Fire Station for Fire Safety Team
  - Joseph King House for Independence Matters
  - Elizabeth House for Children's & Norfolk First Response
- Complete decommissioning works at:
  - 4, Pear Tree Cottage, Thetford for Children's
  - Lawrence House for Pension Fund
  - Breckland Business Centre for Children's
- Progress power battery swap outs at 39 Norfolk Fire & Rescue Stations and final 2 stations for audio installs

For additional information please contact Alan Chappell, Nick Killington or Kurt Frary

## Corporate Programmes - Information Governance Electronic Storage Project

Update  
01

### To Date

- IMT Proof of Concept
  - Top level folder structure agreed by ESIT
  - Solution built to include automated retention labels
  - UAT completed (including accessibility)
  - Agreed 7 yr retention and created 12+ months not accessed hidden for deletion
- Engagement with business leads and IGSG
- Submitted all unsupported files and .PST for deletion to IDT
- Comms drive- Tidy Friday
- Service Desk Comms- deletion of unsupported files

### Next period

- IDT to commence Hide/Delete process
- Continue IMT Proof of Concept migration
- Files with no owner and those +250gb list with business leads to agree deletion by 13/7/22 then submit to IDT
- Agree order of early adopters
- Plan Business Sprints using lessons learnt from Proof of Concept

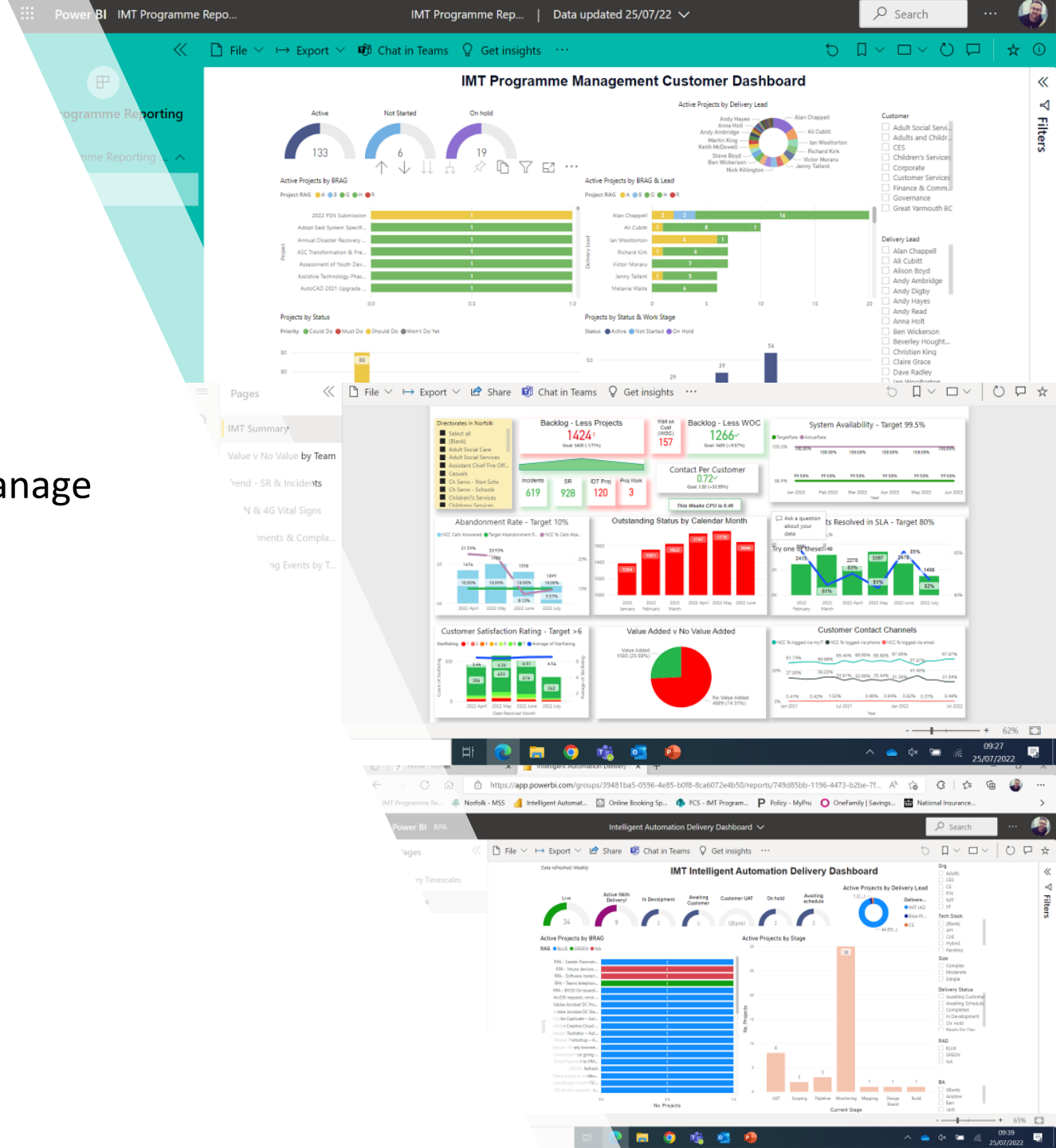
For further information speak to Anna Holt, Melanie Waite or Rob Hammond

Plus others for...

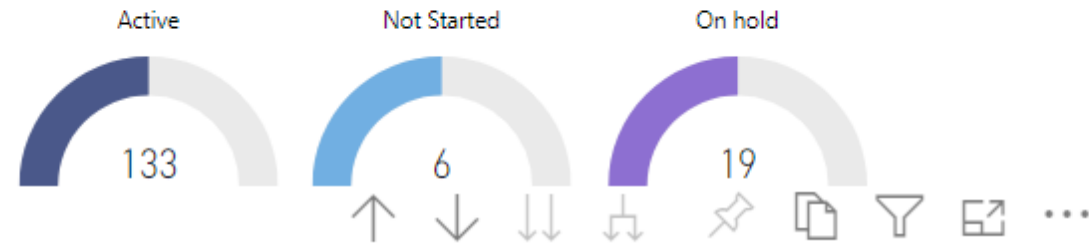
- Digital Norfolk Connectivity
- PSTN (Digital Switch-over)

# Dashboards

Providing valuable up-to-date information to manage and make decisions

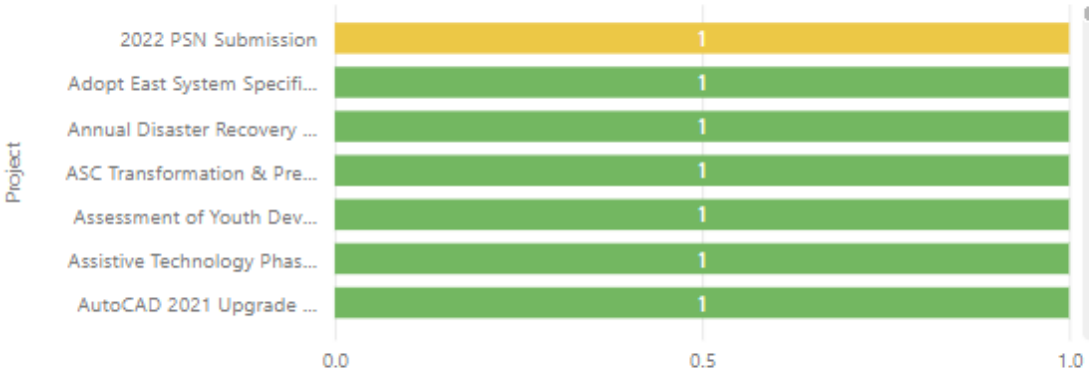


# IMT Programme Management Customer Dashboard



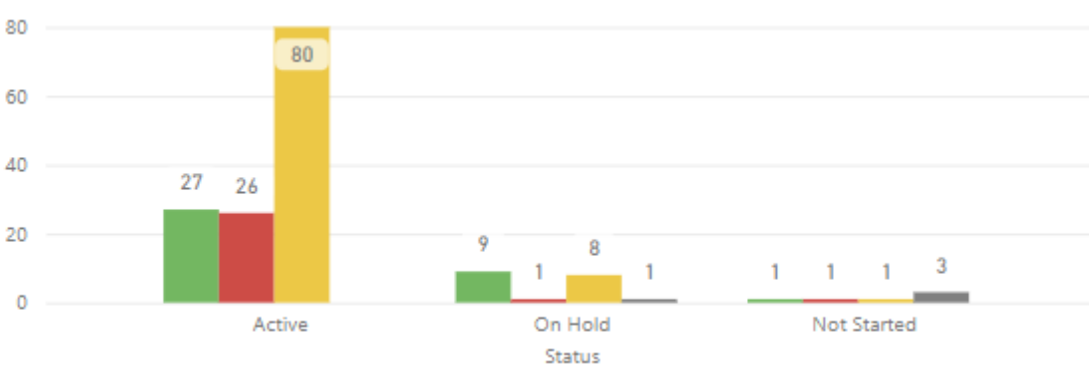
Active Projects by BRAG

Project RAG ● A ● B ● G ● H ● R

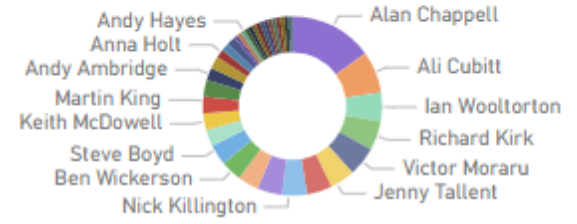


Projects by Status

Priority ● Could Do ● Must Do ● Should Do ● Won't Do Yet

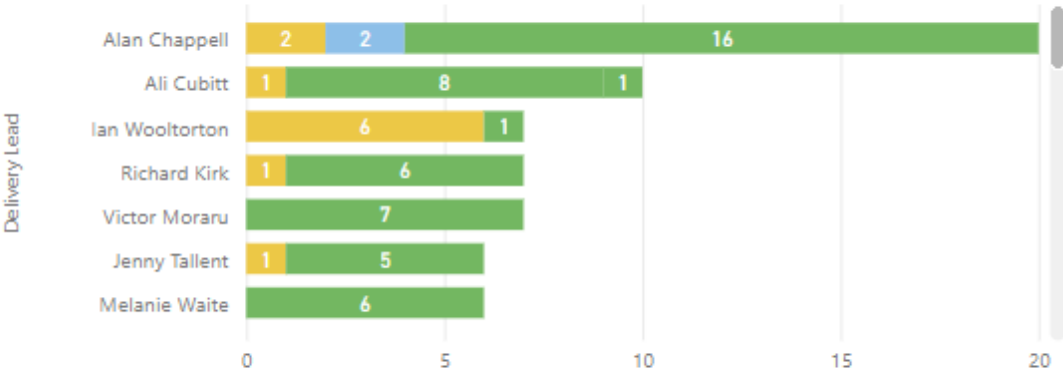


Active Projects by Delivery Lead



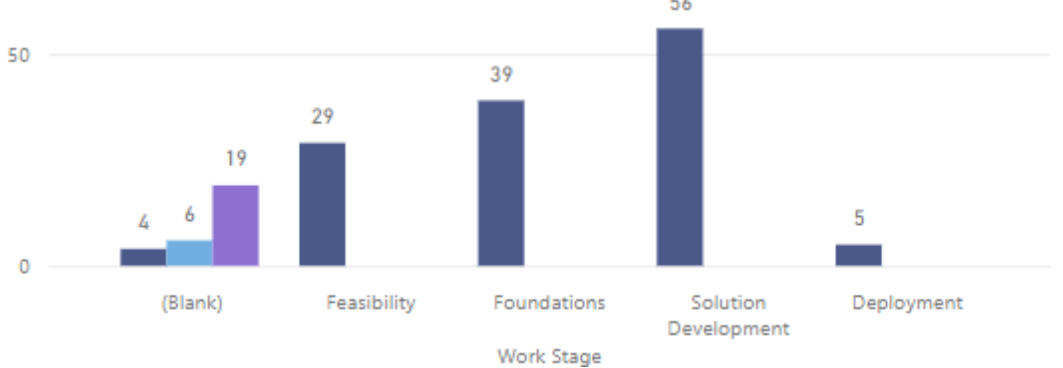
Active Projects by BRAG & Lead

Project RAG ● A ● B ● G ● H ● R



Projects by Status & Work Stage

Status ● Active ● Not Started ● On Hold



Customer

- ☐ Adult Social Servi...
- ☐ Adults and Childr...
- ☐ CES
- ☐ Children's Services
- ☐ Corporate
- ☐ Customer Services
- ☐ Finance & Comm...
- ☐ Governance
- ☐ Great Yarmouth BC

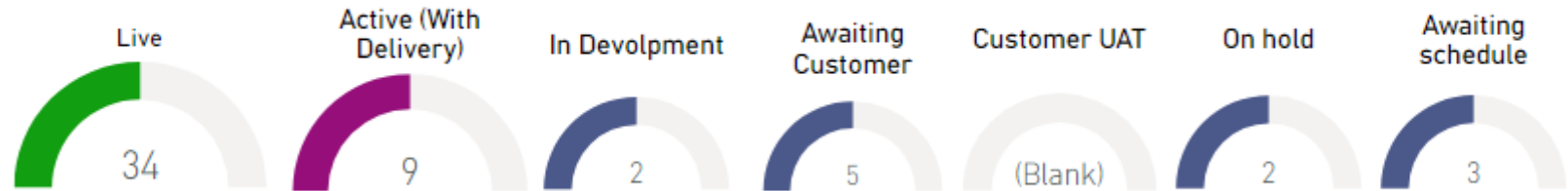
Delivery Lead

- ☐ Alan Chappell
- ☐ Ali Cubitt
- ☐ Alison Boyd
- ☐ Andy Ambridge
- ☐ Andy Digby
- ☐ Andy Hayes
- ☐ Andy Read
- ☐ Anna Holt
- ☐ Ben Wickerson
- ☐ Beverley Hought...
- ☐ Christian King
- ☐ Claire Grace
- ☐ Dave Radley
- ☐ Ian Woollorton

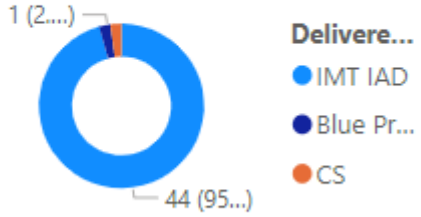


Reset

# IMT Intelligent Automation Delivery Dashboard

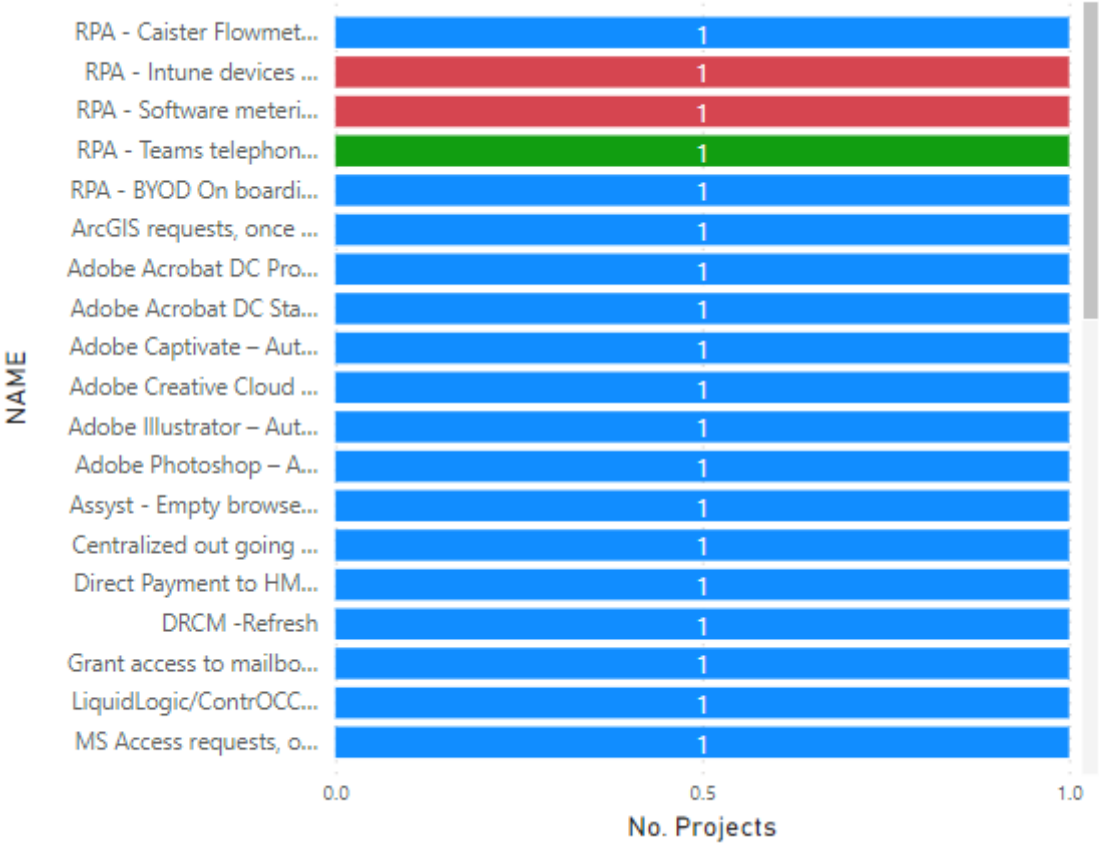


Active Projects by Delivery Lead

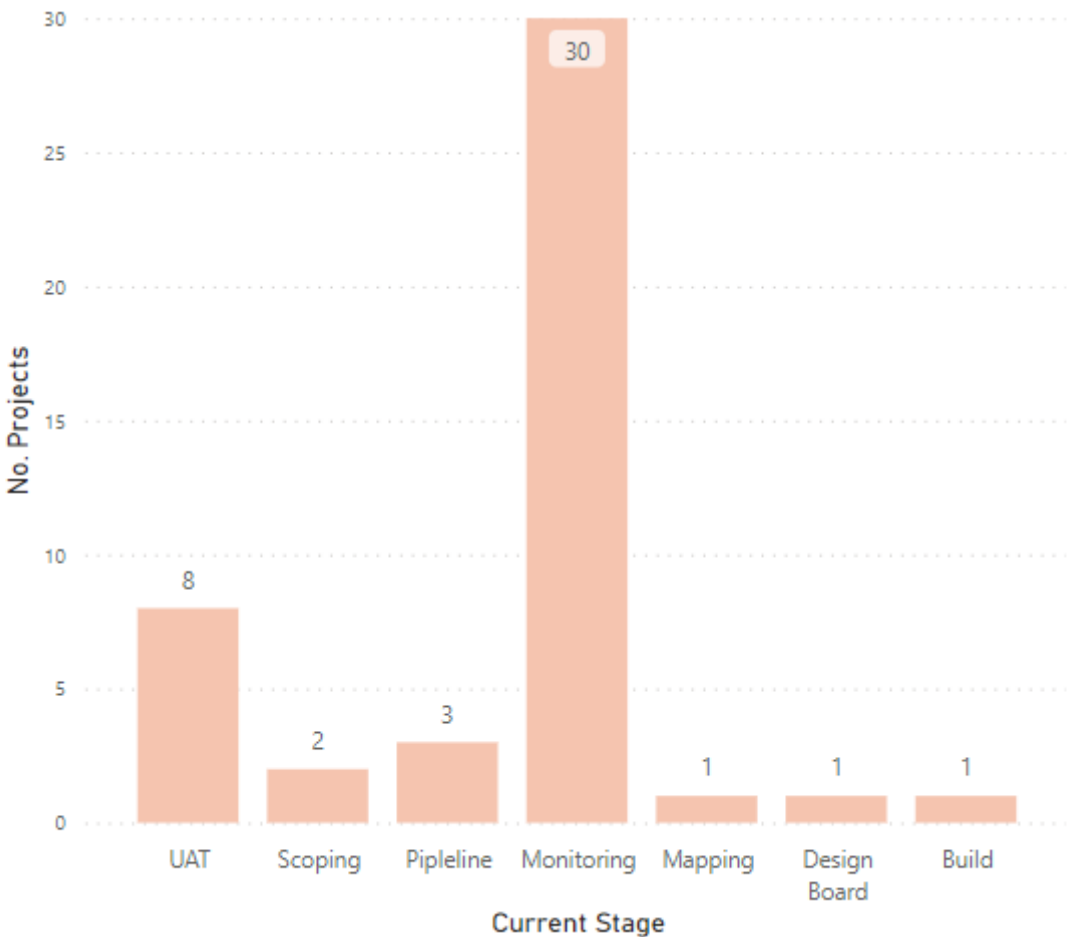


Active Projects by BRAG

RAG BLUE GREEN NA



Active Projects by Stage



- Org**
- Adults
  - CES
  - CS
  - FIN
  - IMT
  - ST
- Tech Stack**
- (Blank)
  - API
  - CoE
  - Hybrid
  - Pending
- Size**
- Complex
  - Moderate
  - Simple
- Delivery Status**
- Awaiting Customer
  - Awaiting Schedule
  - Completed
  - In Development
  - On Hold
  - Ready for Dev
- RAG**
- BLUE
  - GREEN
  - NA
- BA**
- (Blank)
  - Andrew
  - Ben
  - Jack



- Directorates in Norfolk
- Select all
  - (Blank)
  - Adult Social Care
  - Adult Social Services
  - Assistant Chief Fire Off...
  - Casuals
  - Ch Servs - Non Schs
  - Ch Servs - Schools
  - Children's Services
  - Childrens Services

### Backlog - Less Projects

1424!

Goal: 1400 (-1.71%)

Wait on  
Cust  
(WOC)  
157

### Backlog - Less WOC

1266✓

Goal: 1400 (+9.57%)

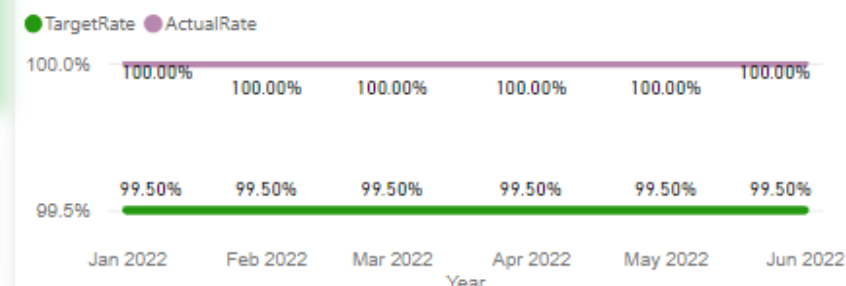
### Contact Per Customer

0.72✓

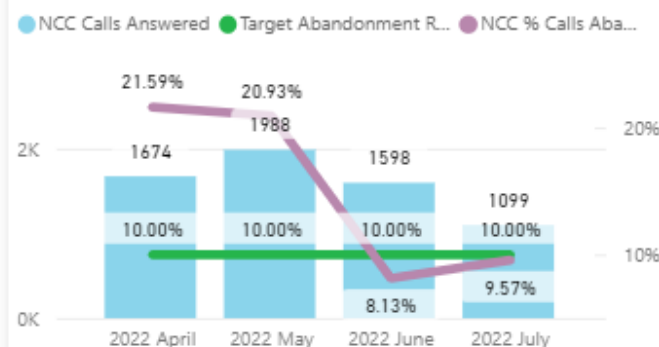
Goal: 1.50 (+51.99%)

This Weeks CPU is 0.46

### System Availability - Target 99.5%



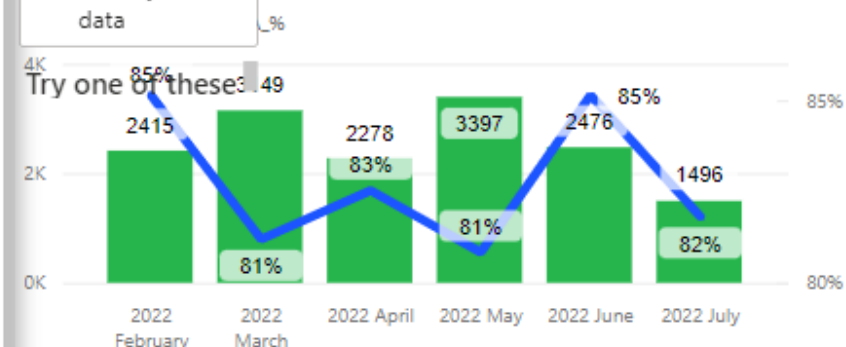
### Abandonment Rate - Target 10%



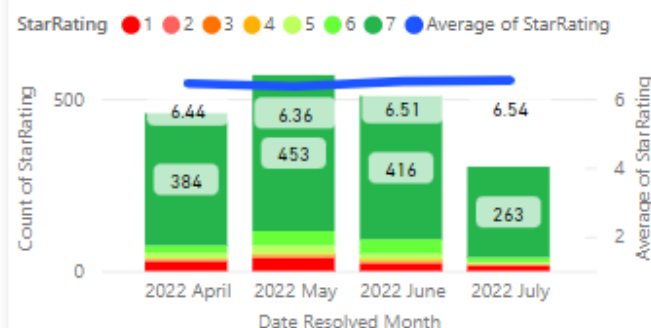
### Outstanding Status by Calendar Month



### Issues Resolved in SLA - Target 80%



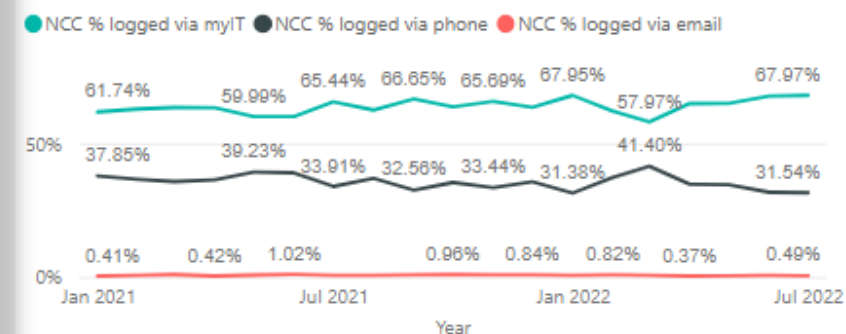
### Customer Satisfaction Rating - Target >6



### Value Added v No Value Added



### Customer Contact Channels





Laptops in Use  
7635

Laptops Seen  
7256

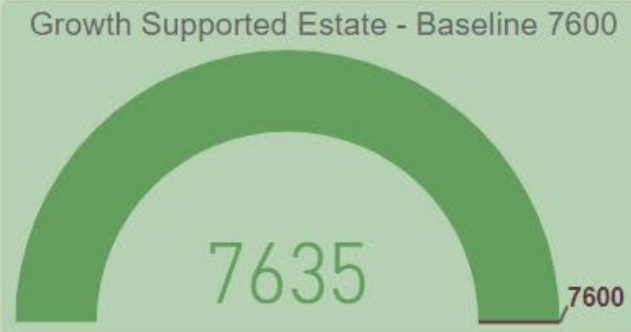
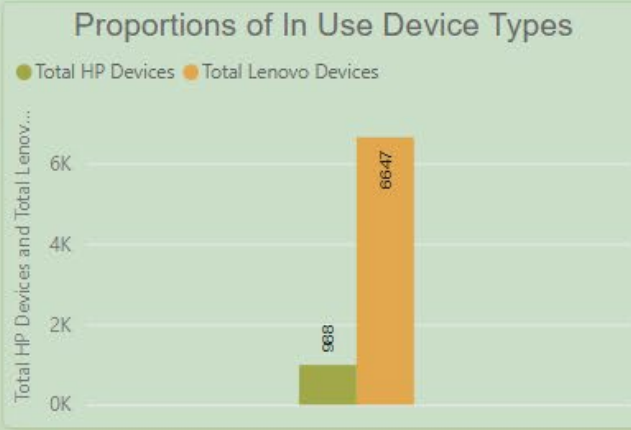
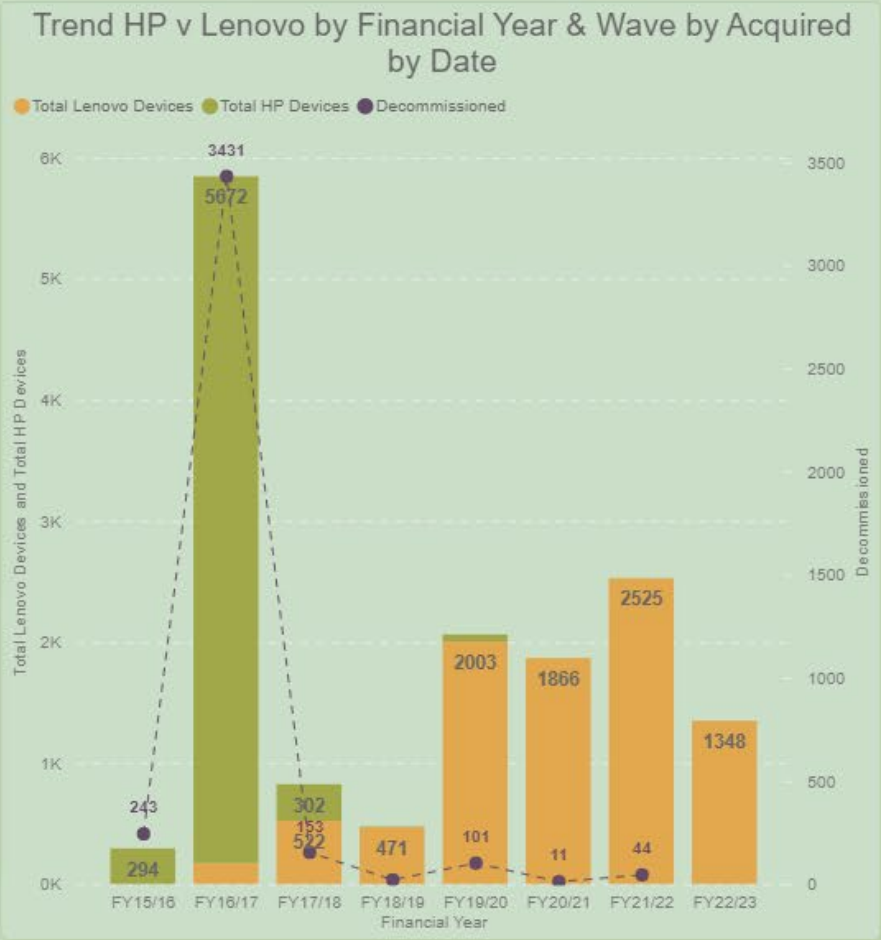
Laptops in Stock  
391

Hardware Repairs  
114

- Service Department
- Select all
  - Adult Social Care
  - Adult Social Services
  - Casuals
  - Ch Servs - Non Schs
  - Ch Servs - Schools
  - Childrens Services
  - Community and Environmental Servi...
  - Council Members
  - Finance & Commercial Services
  - Legal & Democratic
  - Managing Directors Department
  - Norfolk Community Health & Care
  - Planning
  - Resources
  - Strategy and Governance
  - Strategy and Transformation
  - Unknown NCC

- Laptops
- Select all
  - HP EliteBook 840 G1 i5
  - HP EliteBook 840 G2 i5
  - HP EliteBook 840 G3 i5
  - HP EliteBook 840 i5
  - HP EliteBook 840 i7
  - Lenovo Thinkpad 13 Touch

Allow +/- 4% Tolerance data



# The Corporate Select Committee is asked to...

1. Consider and comment on the updates contained in this report.
2. Advise whether the Committee would wish to consider any alterations or additions to the current plans.
3. Consider options to improve mobile coverage

(Reminder – Updated coverage monitoring, standard agreements, NCC assets database for MNOs)



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# Thank you for listening



[Geoff.connell@norfolk.gov.uk](mailto:Geoff.connell@norfolk.gov.uk)



<https://www.linkedin.com/in/geoffconnell/>



[@geoffconnell](https://twitter.com/geoffconnell)

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