**IT Implementation Projects**

**Athena Programme and Emergency Services Mobile Communications Programme**

Report by: Supt Josie Hayes/ T.Chief Supt Tom Simons – Strategic Change Directorate
Supt Simon Morris – ESMCP & Mobile First Manager

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## 1. Purpose of Report:

The purpose of the report is to present an update on the Athena Programme and Emergency Services Mobile Communications Programme.

The Annex 1 report provides a strategic update on the Athena programme.

The Annex 2 report provides a strategic update on the Emergency Services Mobile Communications Programme (ESMCP).

## 2. Recommendation:

This report is for the PFCC to note.

**Annex 1: Athena**

**Topic: Strategic Update on Athena**

**Author: Superintendent Josie Hayes / T.Chief Superintendent Tom Simons – Strategic Change Directorate**

## 1.0 Introduction

1.1 This report is written in response to a request from the PFCC for an update on the Athena Programme to be presented to the Essex Police, Fire and Crime Panel meeting.

1.2 Essex Police was asked to provide an update on the areas shown below:

- *How are partner agencies benefitting from the implementation of Athena?*
- *Which other police areas are using Athena and which are planning to use the programme going forward? Plans for collaboration with other policing bodies going forwards*
- *Update on key issues that the consortium is actively addressing*
- *Impact of the project on overall budgets*

1.3 Each area is discussed under the relevant section heading below.

## 2.0 How are partner agencies benefitting from the implementation of Athena?

2.1 Whilst there are no partner agencies directly benefiting from access to the Athena system at this juncture, it is worth reflecting on consortium progress to date. Not only are nine forces now successfully integrated on a common Records Management System (RMS), we also now have a financially sustainable single client function, the Athena Management Organisation (AMO) which is set up to manage complex budget pressures and development requirements.

2.2 The Athena Innovation Project - Partner Problem Solving Solution (PPSS) - is our primary initiative in this area and is jointly funded by the Home Office Innovation and Transformation Grant and seven Athena consortium forces (Essex, Norfolk and Suffolk, Kent, Bedfordshire, Cambridgeshire and Hertfordshire).

2.3 The initial PPSS project, as previously reported to the Police, Fire and Crime Panel in October 2017, consists of two key elements:

- A data and case sharing platform that enables police forces and partner agencies to work as a collective unit (where appropriate) using the same case management processes and system.
- A problem solving capability within Athena that services the requirements of relevant forces. This will allow partners to proactively agree priorities and create a Problem Management Plan (PMP) for either crime or non-crime issues (in relation to persons, objects, locations or events). Relevant events will be linked to the PMP and alert partners when new information becomes available within the Person Object Location Event (POLE) database. The platform will allow the problem to be categorised with a case management team and for objectives and an action plan to be set to deal with the problem.

2.4 The first stated aim (enabling police forces and partners agencies to work as a collective unit) will not be achieved within the current financial year. The project has uncovered a key risk in relation to partner participation concerning data protection and GDPR which must be resolved before data can be shared. The Data Protection Officer within Essex Police has stipulated that this risk should be reduced through the wider Athena system initially, and therefore the consortium has employed legal firm TLT to undertake the work required as regards both core Athena and PPSS documents[1]. This process is being managed through the AMO.

2.5 Based on the progress towards the pilot from a technical perspective and to provide further mitigation of the above risk, the Innovation Project Board (chaired by the AMO) has decided to commence the pilot without partners at this time. The pilot will be carried out by the Integrated Offender Management (IOM) Units and two Community Policing Teams (CPTs). Although partners will not be able to access and exploit the system themselves, the police officers and staff that work within these teams will be able to upload third party information that they receive relating to candidate cases they are managing.

2.6 The pilot commencing in November 2019 will realise the benefits of the problem solving solution in terms of functionality being leveraged against complex challenges such as OCG management. Problem Management Plans will enable improved case management within Integrated Offender Management and enhanced problem profiling for Community Policing Teams.

**3.0 Which other police areas are using Athena and which are planning to use the programme going forward? Plans for collaboration with other policing bodies going forwards**

3.1 Currently there are nine forces that make up the Athena consortium (Essex, Bedfordshire, Cambridgeshire, Hertfordshire, Kent, Norfolk, Suffolk, Warwickshire and

[1] In order to make them both GDPR and Data Protection Act compliant

West Mercia). There are no other forces planning to join the Athena consortium at this stage.

3.2 Northgate Public Services (NPS) has now contracted with another seven UK police forces to supply Connect, the platform upon which Athena operates. Connect forces have the same functionality but do not yet share data outside of force borders. Two of the future Connect forces are the Metropolitan Police Service (MPS) (which shares borders with both Essex and Kent) and West Midlands Police. Athena-MPS-WMP integration would align the two largest police forces in England and Wales with the largest shared policing platform.

3.3 There is currently technology available that would make it possible to interface the Connect forces with the Connect Athena forces. This technology could also work to interface with the 22 Niche forces. The future strategic intent is to collaborate amongst Athena enabled, Connect enabled and Niche enabled forces to deliver a nationally integrated solution.

3.4 A Contract Change Notice (CCN) has been raised by the Alliance for Connect to Connect functionality. This underlines both the commitment to achieving the integrated solution and fact that commissioning work has begun.

**4.0 Update on key issues that the consortium is actively addressing**

4.1 The key developments that the consortium is actively working towards include, but are not limited to:

4.2 The contract for the provision of the CDG allows for 15 months' dual running of the legacy MI system alongside the new CDG system. After 15 months, any force(s) still using the legacy (MI) system will be liable for the full costs of maintaining it. If a force remained as the only party using the MI system following the transition period then they would be liable for significant costs (though clearly these would be split proportionately if more than one force failed to transition within the described timeframe). Essex and Kent are the only two of the nine consortium forces that have not indicated their readiness to accept CDG. The other seven forces are intending to extract data from the CDG and use their own hardware environment to produce their reports. Essex and Kent are intending to utilise the full functionality of the CDG by extracting their reports directly from it.

4.3 *Delivery of Contract Change Notices (CCNs):* The Athena consortium, via the governance processes, have agreed a set of CCNs with Northgate Public Services (NPS) to address legislative changes and statistical requirements within the system as well as to improve functionality and end user experience. The CCNs are all within the development plan and funding included within the programme.

4.4 CCNs are prioritised through the Business Design Authority (BDA) (chaired by ACC Mike Colbourne) which comprises representatives from all consortium forces.

4.5 One of the most notable successes delivered in recent months is the availability of the Athena Record Management System (RMS) on operational officers' mobile devices. This has increased both the utilisation of the application and the immediacy and availability of shared data and intelligence. Utilising an investment in Athena Mobile Business Services, it is intended to ensure that the (third party) mobile versions of Athena are seamlessly integrated with the application as well as any subsequent upgrades or development. It should however be noted that the Police Intelligence Report (PIR) submission function of the mobile app has been unavailable for a considerable period (since February).

4.6 *Delivery of version 6 (v6, known as Express) and Digital Case File (DCF):* The Athena Management Organisation (AMO) has, on behalf of the consortium, extended the development plan through to the delivery of v6 and DCF. Express is a fundamentally different interface and is expected to improve the end user experience significantly, whilst DCF development, financed centrally from transformation / innovation funds, will address the most complex part of the application – based on feedback from our end users. The interface (v6) and DCF are scheduled for delivery in March 2021.

4.7 Version 6 (Express) will deliver a more intuitive app-style interface for the user, changing the appearance of the system by displaying Person Object Location Event (POLE) data as individual sets of information rather than as a whole set of data. This will reduce the demand on the system as the user will be able to edit each element of POLE data separately. The currently functionality of Athena will remain, but will be accessible in a more user-friendly format. Digital Case File will remove the need for Magistrates Guidance (MG) case files making file submission fully digital, with one data entry point, reducing rejections and remedial action required by the CPS.

4.8 The upgrade to v6 (encompassing DCF) will be the single biggest change to Athena since its launch. The delivery of this project across the consortium is managed by the AMO and there will be a requirement for in-force project management support to ensure its successful delivery. The training requirements are being developed by the Learning & Development (L&D) User Group, which feeds into the Business Design Authority (BDA) and the v6 Project Board.

4.9 In addition to these important pending initiatives, the Consortium has also made significant progress in recent months by agreeing the Deed of Variation (closing a number of commercial risks) and introducing v3.6.2 (resolving a number of stability and performance issues).

4.10 Risks in relation to the Athena Programme are managed through the force Strategic Risk Register and are reviewed quarterly at the Risk Star Chamber with full oversight and

scrutiny from the DCC as Senior Information Risk Owner (SIRO). Risks and progress to mitigate these are reported to the Joint Audit Committee each quarter.

4.11 The table below provides a summary of the current Strategic Risks being managed in this way.

| Risk Title | Risk Description | Current Risk Score |
|---|---|---|
| Athena Sub Optimisation | Sub-Optimisation - Inability to utilise the system to maximum effect (Upgrades and fixes for known problems, Internal culture and processes not aligned). Compromises return on investment and benefits realisation, Inefficiencies hamper wider service / productivity improvement initiatives, Potential for disenchantment with the system | 40<br>(Likely x Moderate) |
| Athena Business Continuity | Business Continuity – stability and performance issues within the system may lead to intermittent or loss of service. Adverse impact on service to public, Reversion to paper records, Requirement to input and clear accumulated backlogs | 30<br>(Possible x Moderate) |
| Inability to exploit Athena - enabled collaborative opportunities | In addition to enhanced information and intelligence sharing, the Athena concept is also predicated on potentially converging functions (CJ/VJ, IMU, Intel) that are Athena-enabled and, ideally, have common business processes. Failure to deliver on this represents a loss of benefit and/or savings and compromises any return on investment. | 30<br>(Possible x Moderate) |
| Athena Reputational | Reputational - Compromised delivery of major public sector IT programmes subject to adverse commentary and coverage. Declining confidence in consortium forces, declining confidence in efficiency of collaborative initiatives. | 20<br>(Unlikely x Moderate) |

4.12 The strategic intention of consortium forces at this time is to deliver agreed system updates as planned, in line with the Forward Schedule of Change into 2021 - with a real focus on exploiting current functionality and information sharing.

4.13 Northgate Public Services (NPS) reports back to the AMO and forces on Athena performance and stability through the fortnightly Service Management Board, where service credits can be claimed in accordance with the Service Level Agreements of the commercial contract. In the event of unplanned outages or severely affected performance the AMO initiate a consortium Gold Group to ensure an early restoration of service and instigation of a formal debrief process.

**5.0 Impact of the project on overall budgets**

5.1 The budget for 2019/20 was set at £1.267m. At budget setting, the below costs were agreed with the Athena Management Organisation.

5.2 In month 6 the Athena forecast was £1.396m, against the full year budget of £1.267m, an overspend of £0.130m

5.3 The Technical Refresh was rolled forward from 2018/19. Costs of £0.123m were approved for 2019/20 at SAMB in July 2019 creating an in-year pressure as shown in the table below.

5.4 The MI solutions programme has slipped further into 2020/21 from 2018/19 producing a saving in year of (£0.039m)

5.5 The ISP Innovation Project has been re-forecast post budget setting. This was not known at budget setting and will result in a direct budget pressure for 2019/20 of approximately £0.045m.

5.6 An in depth breakdown can be seen below:

| | **Budget 19/20** | **Actuals/ Forecast 19/20** | **Variance 19/20** |
|---|---|---|---|
| | **£** | | |
| Contract Costs | 267,666 | 267,666 | 0 |
| Module Maintenance | 11,753 | 11,753 | 0 |
| Software | 201,269 | 201,269 | 0 |
| Implementation (BCH) | 0 | 0 | 0 |
| Recharge from AMO incl resources | 289,904 | 289,904 | 0 |
| Contribution to Regional Pot | 14,766 | 14,766 | 0 |
| CCNs | 62,268 | 62,268 | 0 |
| Express | 63,697 | 63,697 | 0 |
| Mobile business Services | 52,116 | 52,116 | 0 |
| MI | 112,993 | 74,236 | (38,757) |
| ISP - Innovation Project | 94,016 | 139,164 | 45,148 |
| BAIL 213b | 43,973 | 43,974 | 1 |

| | | | |
|---|---|---|---|
| Technical refresh | | 123,183 | 123,183 |
| Development Fund | 52,116 | 52,116 | 0 |
| Digital Case File | | | 0 |
| **Total Cost** | **1,266,537** | **1,396,112** | **129,575** |

5.7 The Athena development team in Essex had a budget set at approximately half the estimated requirement for 2019/20. The Athena development team in Essex requested additional budget at Chief Officer Group (COG) in May 2019 for the remaining 6 months of 2019/20. This was approved. The budget has been increased and funded from budget not required for the costs fully recharged to the Athena Management Organisation.

5.8 At month 6, an underspend in officer salaries is forecast which may in part be used to offset overtime. All posts remain non-established.

| | **Budget 19/20** | **Actuals/ Forecast 19/20** | **Variance 19/20** |
|---|---|---|---|
| **Essex Development Team & Expenses** | | | |
| Police officers - Non Established | **188,552** | 147,997 | (40,555) |
| Staff - Non Established | **113,340** | 113,340 | 0 |
| | **301,892** | **261,337** | **(40,555)** |

**Annex 2: Emergency Services Mobile Communication Programme**

**Topic: Strategic Update on ESMCP – PUBLIC REPORT**

**Author: Superintendent Simon Morris**

## 1.0 Introduction

1.1 This report is written in response to a request from the PFCC for an update on the Emergency Services Mobile Communications Programme (ESMCP) to be presented to the Essex Police, Fire and Crime Panel.

## 2.0 Background

2.1 Radio communications between police officers and control rooms currently take place on Airwave, the commercial name for a Terrestrial Trunked Radio (TETRA) network set up in the early 2000s. It is a private network with a dedicated frequency spectrum providing national coverage.

2.2 Airwave is more expensive and functionally limited compared with newer communications solutions, but works well and has a high level of user satisfaction. Whilst changing data requirements of the public and emergency services have meant that the gap has been filled by forces with devices such as our Mobile First equipment, there is the potential for this requirement and that of critical voice transmissions to be met by one system. Whilst the maintenance and compatibility of the ageing Airwave hardware adds increasing cost and complexity to managing the Airwave network, there is no reason in principle why it could not be retained and improved.

2.3 The view of the then Government was that Airwave was outdated and needed wholesale replacement. The Emergency Services Mobile Communications Programme was therefore instigated by Government to deliver operational communications via the 4G Long Term Evolution (LTE) commercial mobile telephony network. This new system, known as the Emergency Services Network (ESN), is designed to operate within the commercial 4G environment, delivering critical voice and data transmissions, but with additional geographical coverage and prioritised transmissions over and above the standard commercial network.

2.4 At the point of programme instigation, the UK was the first country in the world intending to migrate emergency service communications entirely to 4G LTE. As such, the development of ESN has been, and is, challenging and complex. The rationale for

change was primarily financial, but as the programme has progressed, and both costs and timelines have increased, this rationale for change looks less convincing.

2.5 Whilst the business case for ESN was made effectively at the outset, the attempt to deliver such an ambitious programme of technical change, unproved and genuinely ground breaking in the emergency service, 24/7 context, may not have been the best solution for the emergency services with the benefit of hindsight. It may have been preferable for the Home Office to first deliver operational LTE in an environment other than emergency service critical voice transmissions, which by their nature are high risk and need a reliable, consistent service.

2.6 The National Audit Office and Committee of Public Accounts have conducted several critical reviews of the programme, finding that it seems likely ESN will be delivered up to 5 years late and more than £3bn over budget.

**3.0 The Emergency Services Network**

3.1 ESN is designed to offer a service with integrated broadband data that has national coverage, contains high availability and has end-to-end security. The contractor for the network is contractually committed to delivering a service at least the equal of Airwave in terms of coverage for critical voice communications, and significantly better in terms of data capability.

3.2 Since the award of the national ESN contracts in late 2015, the programme has been subject to delays. This was not unexpected given the ambitious timescale set by the Home Office, together with the inevitable technical challenges brought about by the UK's position as the first to develop 4G LTE emergency services communications.

3.3 ESN will require the procurement of new handset and vehicle devices to work on the network. There are a number of significant technical and operational challenges that will drive both the specification of the device and how it is deployed. In addition, ESN devices are expected to be more expensive that the current Airwave equipment.

3.4 The transition period will present technical and operational challenges. The technical capability to transition effectively is dependent on a product which will allow Airwave and ESN to be used simultaneously. The force ESMCP team is working with the Home Office technical team and local stakeholders to ensure the transition process is designed to minimise the impact of changes as far as possible.

3.5 A fundamental area of work is to ensure ESN network coverage at least matches that of Airwave, particularly in key strategic locations. Our force coverage lead has been working closely with the coverage contractor to ensure these areas are identified and

mapped so they can be held to account if coverage is not as promised when testing of the network formally begins.

## 4.0 Potential Benefits of ESN

4.1 When ESN does deliver, it should bring significant business benefits. These are summarised in the following table:

| Category | Feature | Benefit |
|---|---|---|
| Data Provision | ESN handsets will allow use of broadband data. | Data provision to frontline officers will eventually be integrated so they should not need separate tablet and radio devices in future, as features will be incorporated in the one ESN device with a single contract. |
| Body Worn Video | ESN handsets can have integrated body worn video (BWV) capability. | This will ensure the current multiple devices officers carry could be reduced to as few as one, minimising the need for multiple device replacement cost and keeping data provision to one single contract as opposed to numerous providers. |
| Device Support Costs | Overall costs of communications support will be lower with less devices. | Integration of devices and contracts will mean up-front and support costs should reduce, as supporting multiple devices financially, operationally and technically is expensive and contains unnecessary duplication. |
| Cost of Calls | The call costs for ESN are significantly lower than Airwave. | Less will be spent on voice communications, albeit we do not expect an overall reduction in costs due to the significant predicted increase in data usage, a consequence of the improved and enhanced data capability. |
| Data Capability | Images can be shared, and crime reports can be created and updated remotely | The enhanced data capability of ESN and the additional functionality over Airwave should ensure officers remain out of the police station, interacting with the public, for longer periods of time than at present. |

## 5.0 Local Preparations

5.1 Essex Police began its preparation for the ESMCP in 2015 with the appointment, in partnership with Kent Police, of a programme lead. Since then, the team has grown to the point where there is now a small transition team.

5.2 The main strand of work for the in-force team at present is the replacement of the Integrated Communications Control System (ICCS) in the Force Control Room. The ICCS needed to be replaced with a new system as the legacy platform would not have worked with ESN. The ICCS is an IT system that allows Control Room operators to speak via radio with officers and via telephony and other means to the public, integrating all methods of communication to ensure that an effective response is provided to public and police communications. The ICCS in Essex Police has now been replaced with a new system that is compatible with ESN.

5.3 Other current local work streams include:

- Project modules such as governance, risk and issue management, benefits management and finance management are in place to support ongoing internal control of the project
- ESN enrolment process complete
- Five of six Direct Network Service Provision (DNSP) control room to ESN connections for Essex and Kent are complete. The last is a Kent satellite site that is in progress and expected to complete in the next month
- Coverage reviewed and Critical Operational Locations recently reviewed and collated to provide a 3ES submission
- Airwave sustainability programme underway in connection with the in-force Airwave team
- Airwave menu services (additional provision of coverage in hard to reach areas) to be extended to end of regional transition

5.4 There are a number of risks associated with ESN, most of which focus on its capability to deliver the service and the escalating financial costs. The longer the development of ESN continues, the greater the financial cost becomes, although this has the potential side benefit of improving commercial coverage which may benefit ESN coverage in non-contracted areas of coverage. These risks are managed by the Deputy Chief Constable via regular Risk Star Chamber updates.

**6.0 Costs**

6.1 A significant amount has already been spent by the force preparing for ESN. Costs incurred by the force include:

- The project team working on ESN
- The new Force Control Room Integrated Communications Control System (ICCS) which was required for ESN capability
- Unplanned refresh of Airwave devices as ESN has been delayed so long

- Direct Network Service Provision (DNSP) connections from the Force Control Room to ESN

6.2 Costs so far are summarised as follows by costs incurred and monies set aside. The amounts are the totals for the financial years 2016-17, 2017-18, 2018-19 and 2019-20:

| Costs Incurred | £ |
|---|---|
| ESMCP Project team | £1,116,000 |
| ICCS Software | £328,000 |
| ICCS Hardware | £553,000 |
| Delivery Partner | £522,000 |
| DNSP connection | £48,000 |
| New Airwave devices[2] | £1,700,000 |
| **Total spent so far on ESN 2016-2020** | **£4,267,000** |

| Monies set aside | £ |
|---|---|
| ESN handsets | £5,300,000 |
| Provision for dual running of ESN and Airwave | £800,000 |
| **Total Monies set aside** | **£6,100,000** |

**7.0 Programme Assurance**

7.1 The ESMCP Full Business Case (FBC) has been delayed a number of times due to its need to be assured by the Government's Major Projects Review Group (MPRG) and the fact that the emergency services have required additional assurances on a number of key operational areas, in particular coverage. As such, the MPRG has required the programme to continue to develop the FBC, aiming for agreement by end of this financial year.

7.2 All police forces are currently working through a Gold Silver Bronze structure with the programme to help develop a draft FBC for circulation during January 2020.

7.3 The Government expects that, once the FBC is approved, the programme should move swiftly, with the expectation that forces will support the implementation of ESN. However, forces have asked for greater understanding of costs, technical issues and capability/capacity gaps before proceeding to any phase of implementation.

[2] Required due to the length of time ESN has been delayed.

7.4 Whilst the mantra of ESN has always been that ESN coverage will be at least as good as Airwave, that cannot just be considered as geographic coverage; it also relates to capacity, connectivity and resilience. How that will be funded beyond the core coverage contract is still unclear, and policing will not adopt ESN without an operationally viable network, which allows us to operate wherever is reasonably foreseeable, in all reasonably foreseeable circumstances.

7.4 The Public Accounts Committee (PAC) on 22nd May 2019 focused on the National Audit Office (NAO) report into ESMCP, which found:

- The programme is £3.1bn (49%) over budget
- Home Office mismanagement has contributed to delay and increased cost
- A further reset might be necessary
- The Home Office ambition to switch off Airwave in December 2022 is unrealistic and December 2026 is more realistic
- Contingency funding is inadequate
- Elements of the technology remain unproven

7.5 The national contingency budget of £714m (9%) is insufficient to cater for ESN contingency plus the cost of funding Airwave for extra years; it is sufficient only to fund Airwave for a further 2 years, allowing for nothing else. The current funding model for Airwave provision is to reallocate police grant. If this continues past 2022 the financial implications are significant.

**8.0 Conclusions**

8.1 Whilst principles for national coordination have been agreed, and pressure from Government to transition will be high once the FBC is finalised, Chief Constables – including Essex Chief Constable BJ Harrington – will not accept ESN until critical voice is absolutely proven to be consistently good enough. The police service national leads continue to work to minimise financial and other implications for the Service caused by delays in the implementation of the ESN.

8.2 Essex Police welcomes technological change and the enhancements it has the potential to deliver to our service. Our leading position in respect of Mobile First and the real enhancements to policing in Essex are clear evidence of this. However, it is vital for us and the public of Essex that our technology must work, work consistently and must be delivered within reasonable and affordable cost parameters.

8.3 Whilst ESN has the potential to be of benefit to the policing of Essex, there are hurdles to overcome and challenges ahead before the network will be fit for purpose and able to deliver the mission of 'the same or better than Airwave'.