From:	Matthew Scott, Kent Police and Crime Commissioner
To:	Kent and Medway Police and Crime Panel
Subject:	Mobile Policing & the Emergency Services Network
Date:	15 November 2016

Introduction:

1. With the increasing demands on policing, and limited resources, forces nationally are looking to 21st century technology and new innovation to deliver services more efficiently and effectively.

2. This paper provides an update on mobile policing within Kent Police and the national Emergency Services Network that will provide the next generation of integrated 4G voice and broadband data services and be operational by 2020.

Mobile Policing:

3. The Commissioner (PCC) and the Chief Constable have a digital strategy that aims to utilise and leverage technology to provide improved services with greater efficiency. This update is further to the Record of Decision (ref. 000/16) noted at the 14 June 2016 Panel meeting.

4. In the first phase of the mobile roll-out, the PCC invested in the region of £2m to enable the deployment of 2,000 Samsung Galaxy Note 4 smartphones to front line officers. These devices incorporate a number of software applications that allow officers to search and input data across a range of police systems. This was a significant step towards cutting bureaucracy and equipping the workforce for the challenges of 21st century policing.

5. An officer can now conduct their own checks on the street and also complete a range of transactions without the need to return to the police station. As the PCC and the Chief Constable deliver this change to working practices, the aim is to increase patrol time and improve efficiency and costs across a range of police functions.

6. The Force is currently seeking a delivery partner for a second phase, which will involve the development of a more integrated and comprehensive software solution. By the end of December 2016, the PCC will be presented with a detailed business case setting out the costs and benefits of this proposed investment. A review of the proposal by PA Consulting identified that very significant savings could be attributed to the 'integrated' software, potentially equating to an hour of officer transaction time per day.

7. Based on delivery of the second phase, the Force expects:
   - reduced radio traffic with the Force Control Room as a result of self-service checks by officers and automated dispatch;
   - faster transactions with software that can search across a range of systems simultaneously;
   - a sharp reduction in the need for officers to return to the police station to complete or file reports.

   The benefit of an hour a day can then be harnessed to re-direct police resources, achieve cashable savings and improve visibility and service delivery.

8. In a wider context, the Force anticipates the Emergency Services Mobile Communications Programme will offer a mobile device refresh in 2019, which is Android based and includes a 'push to talk' function to replace the current Airwave service. The aim is to develop and evolve software that can be used on the new devices and to take advantage of opportunities to reduce the number of devices required by officers.

The Emergency Services Mobile Communications Programme (ESMCP):

9. The ESMCP, set up by the Home Office, will provide the next generation communication system for the three emergency services (police, fire and rescue, and ambulance) and other public safety users, replacing the current Airwave service. The new system will be called the Emergency Services Network.

10. To support delivery, the ESMCP is managing a number of associated projects including:
    - user devices and accessories;
    - vehicle installations;
    - air to ground network;
    - control room upgrades, which will require:
        - upgrading 200+ integrated command and control systems;
        - connection to the Public Service Network (PNN); and
        - connection to mobile data systems, fire mobilising systems and command and control systems.

Emergency Services Network (ESN)

Background

11. The Airwave service.
    - was the first national public safety network based on Terrestrial Trunked Radio (TETRA) technology;
    - is used by all emergency services and over 300 other organisations;
    - is a private network with dedicated spectrum owned by Airwave Solutions Ltd (ASL);
    - has circa 3,800 geographic sites that provide high levels of national coverage; and
    - is reliable, effective and well suited for voice communications and limited data transmission.

    However:
    - the requirements of blue light services are growing and exceed the capabilities of TETRA technology;
    - it is expensive to run compared with similar services (over the next 15 years, the government estimates switching to ESN will save £1bn);
    - The national Airwave service contract expires on 31 December 2019;
    - EU procurement legislation requires a competition; and
    - TETRA cannot meet the requirements for mobile broadband data services.

Overview

12. Utilising the latest commercial telephony and data technology, ESN will deliver the next generation of integrated voice and broadband data services via the 4G network for the emergency services. It will provide greater integration with existing and future policing systems and deliver enhanced functionality to the front line using specially encrypted and prioritised channels on the commercial mobile phone network.

13. The ESN will provide a service that is:
    - Improved – with integrated broadband data services as standard; national coverage, high availability and end-to-end security.
    - Flexible – to rapidly adapt to changing demands and evolve to meet the growing requirements of emergency services.
    - Lower cost – to address budget pressures and re-competed regularly to leverage market forces.

14. The ESN will be a virtual network (like Virgin mobile) delivered using EE's commercial network, which is the largest 4G mobile network in Great Britain. When ESN goes live, that network will reach 92% of the population, rising to 97% geographic coverage through the creation of more sites in rural and remote areas. This will be at least the same as the current Airwave service, and satellite communications may be used to fill any remaining gaps with the cost covered under the main contract.

15. The ESN will provide capability for future integration with mobile policing and help emergency services work more efficiently through greater use of video and digital technologies. Streaming high resolution video is one of the most eagerly anticipated features - being able to transmit live images of, for example, an accident scene, will allow officers and control room operators a much better assessment of the scene than was previously possible with voice description.

16. Other new capabilities also include allowing front line officers to instantly check relevant databases for a person's details. This will be a huge benefit, reducing radio traffic and saving valuable time. The new service will also enable talkgroups to be more dynamic, with the ability to easily add users from across the emergency services, enabling better management of major incidents. It will also enable hand held devices to be updated 'over the air' as opposed to having to be returned to base for configuration changes.

17. The ESN cutover timeline is based on Airwave contract end dates and the 4G network rollout. The Home Office is obligated to re-compete once the Airwave contracts expire, which following the purchase of ASL by Motorola, is on 31 December 2019. As such, it is envisaged that ESN will be operational by 2020.

Key Enablers

18. Nationally, it is predicted that around 300,000 users will require new hand held devices, and that 45,000 vehicles and 115 aircraft will need to have new equipment fitted. In addition, some 230 control room Integrated Command and Control Systems (ICCS), which manage the dispatch of police resources, will have to be upgraded or replaced to interface with ESN.

19. The hand held devices will be similar to smartphones, much like the ones most of us already own. The exact device used will be determined by each Force, but they will be tougher than the average iPhone or Samsung in order to survive the rough and tumble of emergency services work. As well as enabling access to applications designed specifically for police use, including a 'Push-To-Talk' feature and an emergency button, they will offer a wider range of functions including body worn video and Android computing functions.

Local Implementation

20. There is a small ESMCP team supporting delivery of ESN locally which consists of a Programme Manager, Force Control Room & Dispatch Business Advisor, Kent/Essex Trainer, Project Manager and Project Support Assistant. Various other positions will come on line as the programme develops and implementation nears.

21. Essex Police and Kent Police ESN go-live will commence in March 2018 and run to March 2019.

22. Police officers and PCSOs will be provided with new hand held devices, and new devices will be installed in all police vehicles. Kent Police has yet to make a decision on the hand held and vehicle devices to be used.

23. Within their Force Control Rooms, Kent and Essex currently have independent ICCS, one of which cannot be upgraded. In 2015, Chief Officers and the respective PCCs agreed to fund a replacement ESN compliant ICCS platform to both Forces – decision reported and noted by the Panel at their meeting on 17 November 2015. This will be delivered and rolled out during 2017, in advance of ESN. As well as providing ESN connectivity, the new joint system will enable demand sharing, enhanced disaster recovery and integrated working across both counties.

24. Independent testing will be carried out of coverage in both Forces to ensure ESN meets local requirements. Kent Fire & Rescue Service will also transition to ESN with Kent Police.

25. The ESN and hand held devices it enables, promises to bring police communications into the 21st century with comparable functionality to that which many enjoy via their own personal smartphones.

26. In terms of PCC oversight, the Commissioner's Chief of Staff (CoS) chairs a quarterly IT Delivery Board where progress against the delivery of all Kent Police IT projects is reviewed. In relation to ESN specifically, the CoS meets regularly with the Programme Manager to monitor and review progress.