



**MOTOROLA SOLUTIONS**

**Mobile Radio Network Services Market Investigation**

*Supplementary Submission on Kodiak*

6 April 2022

## 1. INTRODUCTION

- (1) This Supplementary Submission addresses Panel Members' questions regarding Kodiak. Motorola remains extremely concerned that Kodiak, its deployment in ESN, the Home Office's unfounded allegations of Motorola causing delay to ESN (including with respect to Kodiak delivery), and the Home Office's own conduct causing delay to the ESMCP all remain inadequately explored and understood. The lack of any meaningful attention to these delay topics in any hearing with the Group increases Motorola's concerns, especially given the apparent potential for remedies to be imposed.
- (2) The purpose of this submission is to ensure the Group understands:
  - (i) how Kodiak has been deployed successfully and fully in accordance with agreed contractual terms;
  - (ii) how the delivery of Kodiak in accordance with 3GPP MCPTT standards means that the Home Office is not 'locked-in' to Kodiak;
  - (iii) that in Motorola's view an open procurement process would lead to the offering of a Kodiak replacement at only a modest development cost; and
  - (iv) that all the arrangements to facilitate the operation of an alternative to Kodiak with Airwave during ESN transition via the interworking service are both contractually and technically provided for.

## 2. THE DEPLOYMENT OF KODIAK IN THE UNITED KINGDOM

### 2.1 Kodiak Release Process

- (3) Kodiak's ESN deployment, as agreed with the Home Office in the 2018/2019 ESN Reset, tracks the Kodiak global product release process: Kodiak provides major releases on a periodic, global, basis, typically once a year. Where new 3GPP standards are released, Kodiak commits to integrate these into its ESN product within [X] months of the release<sup>1</sup>. The Kodiak release is provided to ESN UK labs for configuration, integration and validation in the ESN Reference and ESN Production Mirror environments. The release is then upgraded into the ESN Production environment and goes through Live Verification Testing to ensure it is installed correctly in Production. The latest release goes through different validation activities primed by the Home Office, in particular Product Integration Testing, Operational Acceptance Testing, Operational Evaluation, to validate that the product meets the contracted requirements.

### 2.2 The contractual basis for delivery of Kodiak as a standard product (as requested by the Home Office)

- (4) In 2018, the Home Office decided it wanted to deploy Kodiak as a commercial off the shelf product, just as all other Kodiak customers around the world. At the time, the Home Office noted that adopting the already working Kodiak product de-risked delivery and enabled the ESN programme to move to a standardised solution faster. At para 58 of its Response to the Issues Statement, the Home Office claims that "Wave 7000 required too much development, and

---

<sup>1</sup> See paragraph 6(iii) of this submission for the applicable contractual provisions.

ultimately the Home Office was forced to agree a reset to the ESN programme, and did so in May 2019.” The following sentence of the Home Office submission is redacted, so it is unclear whether the Home Office attempted to substantiate its claim. The CMA’s refusal to grant Motorola access to this text was presumably on the ground that there is no evidence in the redacted text on which the CMA seeks to rely against Motorola. In any event, Motorola strongly rejects the suggestion that the Home Office was ever “forced” to do anything at Motorola’s instance, and respectfully requests the opportunity to be heard on any specific Home Office allegation before any provisional decision is reached. This is essential as a matter of procedural fairness. It is regrettable that Responses to the Issues Statement were made available only after the 10 February hearing.

- (5) As explained to the CMA in Motorola’s response to Section C of the Request for Information issued by the Competition and Markets Authority (the “CMA”) pursuant to the section 174 Notice dated 13 December 2021:
- (a) The Home Office was fully aware of the features and functionality provided by the version of Kodiak (R8.4.1) that was globally deployed in 2018 when the Home Office made its decision to adopt the Kodiak platform as the fundamental tenet of the ESN Reset;
  - (b) During the Home Office’s technical evaluation visit to Motorola’s Kodiak product team headquarters in Plano Texas in May / June 2018 the Home Office understood that the then Kodiak versions (R8.4 and R9.0) did not meet a number of the Home Office’s Public Safety Communications Services (PSCS) requirements under Schedule 2.1 of the Lot 2 Agreement. In other words, there was a “gap” between the functionality of the Kodiak software released into the market at that time and the total PSCS requirements that the Home Office originally contracted for in 2015.
  - (c) For this reason, between June and September 2018, the Home Office and Motorola technical teams engaged in detailed discussions in order to determine how this gap could be addressed, including by reviewing with the Kodiak product engineers what features and functionality Motorola expected to include in its future releases (R9.1 and R10) and assessing to what extent those features would meet the applicable PSCS requirements. That discussion also included a review of whether Kodiak’s functionality plans could be modified to meet Home Office individual requirements or whether such requirements could be “retired” (i.e. removed from the Lot 2 contract). These discussions were referred to by Motorola as the “Blitz Process”.
  - (d) During the Blitz Process, Motorola and the Home Office considered the functionality of Kodiak R8.4 and 9.0 and how this compared with the PSCS requirements in Schedule 2.1. After an initial analysis, the Home Office prepared a list of 10 features which the Home Office considered to be “must haves”, and the parties then engaged in an extensive planning exercise to determine how to deliver those “must haves”. At this time, there was a preliminary plan about what features were planned to be incorporated in Kodiak’s subsequent releases 9.1 and 10.0, but the details of those subsequent releases were not yet available. As a result, the parties engaged in a detailed process in which Kodiak accelerated the features planned for R9.1 and R10.0, incorporating inputs from the Home Office’s technical representatives. During the course of this joint analysis between the teams, the list of “must have” features eventually grew to be 26. After the Blitz Process was performed, primarily over the course of August and September 2018, Motorola

Solutions and the Kodiak product team were able to clarify plans and Motorola agreed to adjust its roadmap to meet all of the “must have” features requested by the Home Office. As a part of this process, the Home Office determined that a number of requirements originally as part of Schedule 2.1 were unnecessary and so their removal was subsequently documented in the ESN HOT and CAN 500 documents.

(6) The *agreement reached between the Home Office and Motorola as to how Kodiak would be deployed in ESN* starting from the date of execution of the ESN Heads of Terms on 21 September 2018 and as fully detailed in CAN500 on 14 May 2019 was as follows:

(i) **Schedule [X] (Amendments to the Lot 2 Agreement) to the ESN Heads of Terms** set out legally binding amendments to the ESN Lot 2 Agreement such that Motorola was contractually bound to deliver its Kodiak software application. Paragraph [X] (Kodiak Specification) of Schedule [X] provides:

“[X].”

(ii) **Annex [X] (Standard Kodiak Backlog Management and Product Development Processes) to Schedule [X] of the ESN Heads of Terms** provides as follows:

“[X].”

(iii) **CAN500 (the restated Lot 2 Agreement dated 14 May 2019)** which incorporated the provisions agreed in the ESN Heads of Terms includes the following provisions applicable to the delivery of Kodiak:

***3GPP Standards Compliance***

**Schedule [X] Paragraph [X]** provides:

“[X].”

***“Schedule [X] Annex [X]***

***[X]”***

There then followed a detailed table setting out the status of Kodiak R9.0 compliance with the applicable 3GPP MC (Release 14) Standards and, where full compliance was not at that time achieved, the full compliance target by reference to the applicable Kodiak Release. For completeness this table is set out in the Appendix to this submission.

***Delivery in accordance with the Kodiak Specification***

**Schedule [X] Paragraph [X]:**

[§].

- (7) By way of example only<sup>2</sup>, to illustrate exactly how, contractually, the agreement to replace the Home Office's "output-based" requirements for the delivery of PSCS Services in the Lot 2 contract with the applicable "input based" Kodiak specifications for the existing or planned release (V8.4.1 through to V10) was implemented, Paragraph [§] was amended to read as follows:

"[§]"

- (8) The same methodology was used for the remaining sub-paragraphs of Schedule [§] Paragraph [§].

- (9) Schedule [§] to the ESN Lot 2 Agreement Part [§] paragraph [§] provides as follows:

[§]."

- (10) In other words, **at the completion of the ESN Reset in May 2019, the contractual delivery requirements for Kodiak were crystal clear, and Motorola never sought to change any of those requirements.**

- (11) To date, Motorola has completed all Kodiak deliverables in accordance with the agreed contractual milestones. The Home Office has, from time to time, asked Motorola to depart from the standard Kodiak product roadmap that is the basis of the ongoing supply around the world, and provide certain specific features. Rather than embark upon any form of specific/"off-roadmap" customer-level customisation, whether with the Home Office or otherwise, since this is not the Kodiak delivery model, Motorola takes account of customer feedback and where appropriate incorporates feature requests in future releases. This is a standard model in the software industry and has been the cornerstone of the Kodiak business model since its inception. As a result, the Kodiak application in the UK is entirely standards-based and is not customised for individual customers.

### **3. The effect of Motorola not [§]**

#### **3.1 3GPP Standards**

- (12) Every single Kodiak release is based on the evolution of 3GPP standards. This is the cornerstone of the delivery agreement reached between the parties in 2018. Motorola's deployment of Kodiak has steadfastly remained consistent with that agreement and Motorola has been careful to work with the Home Office to avoid embarking down a "proprietary customisation" path which would have the inevitable consequence of making the transferability of the MCPTT component of the ESMCP more difficult. In other words, the Kodiak application is a standards based "plug and play" solution which can be replaced by an alternative application based on 3GPP standards. It is therefore misleading for any stakeholder to claim that the Home Office is "locked in" to Kodiak or that Kodiak is an irreplaceable ingredient of ESN.

---

<sup>2</sup> Schedule 2.1 to the Lot 2 Agreement (dated 14 May 2019) contains many such examples.

### 3.2 Interworking

- (13) Motorola has already explained in detail how Motorola's ownership of Airwave allowed Motorola to propose, design and deliver a very high-quality solution to allow ESN calls to be handed over to the Airwave network and vice versa during the critical user transition phase. As Motorola demonstrated to the Group during the 30 November 2021 site visit, its interworking solution is ready for when the rest of the ESMCP is available. Moreover, the interworking solution developed by Motorola is of the highest technical standard. In fact, Motorola believes that the Group will not identify a single instance (much less a systemic pattern of behaviour) in which Motorola has been delinquent in facilitating the transition from Airwave to ESN. Rather, the Group should ask the Home Office the simple question as to whether it is able, today, to share a plan for transition at the level of detail required to be acted upon by its ESN suppliers.
- (14) There is no evidential basis to support any theory that Motorola may be expected to prevent or hinder the provision of the interface between Airwave and an alternative MCPTT solution. As explained both at the hearing and subsequently Motorola is contractually obliged to facilitate the interworking between Airwave and any alternative third party MCPTT application that the Home Office chooses in place of Kodiak. This point is vital to appreciate: it would be disproportionate to impose a remedy to secure that which has already been agreed, absent any evidence to indicate that Motorola would breach such contractual obligation. Further, as a direct result of the circa £[X]m capital investment upgrade programme that Motorola is undertaking in respect of the Airwave network, the facilitation of standards based integration with other MCPTT applications is now much more straightforward than was envisaged in 2018 when the contractual commitment was given.

### 3.3 Replacement for Kodiak post 2024

- (15) As already stated, the Kodiak MCPTT platform complies with the 3GPP MCPTT Standards, which means there are no barriers to entry for any replacement application.
- (16) As the Group is aware, in November 2021 Motorola notified the Home Office that [X]. Moreover, the Home Office should have started to run an open procurement process already, just as the ESMCP envisages (i.e. frequent reprocurement of the constituent elements of ESN). The Home Office must not be allowed simply to select (or require) any supplier it chooses without an appropriate form of competition, allege dependence, and then ask for intervention claiming that the market is not working well.
- (17) Motorola believes that, given an open opportunity, the market will respond to an invitation to supply competing propositions to supply the emergency services after 2024, and it is only then that the Home Office be in a position lawfully to evaluate the alternative solutions.<sup>3</sup>
- (18) In respect of Kodiak, there are many technology providers who have the capability to develop a Kodiak-style MCPTT solution. Moreover, the costs of developing such an application are relatively modest. Even if one were to accept the Home Office view that competing solutions are approximately 18-24 months behind Kodiak, Motorola estimates that a Kodiak replacement

---

<sup>3</sup> Motorola notes that in March 2021 The Home Office issued an "Early Engagement Notice" RFI – Market capability in relation to Mission Critical Communication Services although it was not a call for competition.

could be achieved with an investment cost of approximately £[<]-[<] million<sup>4</sup>. As a software solution, once ready, a 3GPP standards-compliant Kodiak replacement could simply be installed into the ESN ecosystem.

- (19) It would therefore be disproportionate to impose any remedy in relation to the supply of Kodiak or interworking, or to suppose that Kodiak has contributed to ESN delay.

---

<sup>4</sup> Based on Kodiak's current R&D expenditure, this is Motorola's estimate as to the price a competitor would charge to bring their product up to the same standard as Kodiak.

## Appendix

Table 1 to Annex 1 of Schedule 2.3 (Standards) to the Lot 2 Agreement - 3GPP PSLTE  
STANDARDS COMPLIANCE

[X]