

Anticipated Acquisition By Viasat, Inc. Of Connect Topco Limited

Summary of Provisional Findings

Notified: 1 March 2023

Overview

1. The Competition and Markets Authority (**CMA**) has provisionally found that the anticipated acquisition (the **Merger**) of Inmarsat Group Holdings Limited (**Inmarsat**) by Viasat, Inc (**Viasat**) (together, the **Parties**) may not be expected to result in a substantial lessening of competition (**SLC**) in the supply of broadband inflight connectivity (**IFC**) services to commercial aviation or business aviation customers serving the UK.
2. This is not our final decision, and we invite any interested parties to make representations to us on these provisional findings by no later than 17.00 GMT, on Tuesday 21 March 2023. Please make any response to these findings by email to Viasat.Inmarsat@cma.gov.uk. We will take all submissions received by this date into account in reaching our final decision.

The Parties' activities

3. Both Parties are satellite network operators (**SNOs**) that own and manage a fleet of satellites. They use their satellite capacity to provide connectivity services to customers across different industries or 'verticals' including fixed broadband, government, maritime, offshore energy and aviation.
4. Our investigation has focused on the supply of IFC for commercial and business aviation customers serving the UK, as IFC is the main area of overlap between the Parties. IFC allows passengers to access the internet while flying (eg for work and recreational purposes, such as for social media and video streaming).

The supply chain for IFC

5. There are three main levels in the supply chain for satellite based IFC services:
 - (a) SNOs own and manage satellite fleets. They may supply satellite capacity at the wholesale level to satellite service providers (**SSPs**) and resellers that sell IFC services to airlines, and/or use their capacity captively to sell their own IFC services directly to airlines.
 - (b) SSPs use satellite capacity to assemble IFC services that can be sold to airlines directly or through resellers.
 - (c) Resellers purchase IFC services from SSPs and sell them to airlines. Some resellers provide value added services and are known as value added resellers (**VARs**).

The types of satellites used to supply IFC

6. Different types of satellites can be used to supply IFC and other types of satellite connectivity services:
 - (a) Traditional geostationary earth orbit satellites (**GEOs**) are large satellites positioned at around 36,000 kilometres above the Earth's surface, allowing them to travel at the same rotational rate as the Earth and provide a stationary platform (ie they appear at a fixed point in the sky from a given user's perspective).
 - (b) New generation low earth orbit satellites (**LEOs**) are much smaller satellites positioned at around 500-2,000 kilometres above the Earth's surface and orbit around the Earth.
7. These differences mean that GEOs and LEOs have different strengths and weaknesses:
 - (a) Many more LEOs are required in a constellation to provide global coverage, and LEOs have a shorter lifespan than GEOs, which means that global LEO constellations are more expensive to build and maintain.
 - (b) Since LEOs orbit closer to the Earth's surface than GEOs, latency (or 'lag time') is lower. Latency improves user experience for certain end-use applications such as gaming and videoconferences.

- (c) LEO constellations can provide full global coverage, whereas GEOs cannot provide coverage over polar regions, which is relevant for certain long-haul flights.
- (d) LEO satellites orbit the Earth, including oceans and uninhabited areas, whereas GEOs provide stationary capacity where it is required. The proportion of usable capacity in LEO constellations is therefore lower than for GEO constellations.
- (e) As LEOs are closer to the Earth's surface, they have smaller beams than GEOs. This makes it more challenging to serve areas where demand is concentrated (such as airports or busy flight paths), as all users under a single beam need to share that capacity. This means that LEO constellations require a large number of satellites in order to provide sufficient capacity in areas where demand is highest.

The satellite industry is evolving

8. Satellite connectivity is a dynamic sector, with supply expected to expand rapidly in the next few years. The sector has recently seen, and is likely to continue to see, disruptive entry by new players with innovative technologies and substantial resources, while established providers are also responding to these threats and opportunities in various ways. This is affecting conditions of competition across all services provided using satellite connectivity, including IFC. For example:
- (a) SNOs such as Starlink and OneWeb have launched LEO satellite constellations and are expanding their capabilities including in IFC.
 - (b) Other players such as Amazon and Telesat have plans to launch LEO constellations.
 - (c) Established SNOs such as the Parties, Eutelsat and SES have recently launched or have plans to launch additional GEO satellites.
 - (d) SNOs and SSPs have announced plans to combine LEO and GEO technologies through mergers or other commercial partnerships. In July 2022 Eutelsat and OneWeb announced plans to merge, and in August 2022 and October 2022 OneWeb announced distribution partnerships with Intelsat and Panasonic respectively (both SSPs active in IFC) to develop hybrid (GEO/LEO) IFC services.
 - (e) Intelsat also acquired the commercial aviation business of Gogo in 2020.

9. Our provisional view is that these developments would occur irrespective of the Merger and we have taken them into account in our competitive assessment.

Demand for satellite connectivity is also growing fast

10. Demand for satellite connectivity is growing rapidly across most end-use applications, driven by increasing use of the internet and demand for data.
11. As regards IFC, airlines told us that IFC is important to the service they offer and that passengers increasingly expect the same level of connectivity on flights as they have elsewhere. Many airlines told us they plan to expand or improve their IFC services in the next five years, by improving their existing offer and by installing IFC on more aircraft.
12. According to industry analyst Euroconsult, there were approximately 9,900 connected aircraft globally providing IFC services through more than 120 commercial airlines at the end of 2021, and this is expected to exceed 20,900 connected aircraft by 2031. Penetration rates are higher for widebody aircraft used for long-haul flights than for narrowbody aircraft used for short-haul flights.

How airlines buy IFC services

13. Contracts for the supply of IFC services are often awarded through a competitive tender process. Airlines can choose to line-fit IFC on aircraft (ie install the equipment required to provide IFC services during the manufacture of new aircraft) or retro-fit IFC (ie install the equipment after delivery or once in service).
14. Airlines consider a wide range of factors when selecting a supplier. These include route coverage, service reliability, technical support and maintenance, speed, certifications, supplier reputation/track record, the cost of the IFC service, capacity, whether a supplier owns the satellites it uses, whether it also offers in-flight entertainment and whether it operates in the Ka or Ku frequency band. Some of these factors are seen as more important than others. The weight attached to them also varies by airline and by contract.
15. The evidence we received suggests that airlines are generally sophisticated customers that are highly engaged with the IFC market and largely up to date with market developments.
16. We also found that airlines have some flexibility over how they procure IFC to encourage participation by emerging competitors and new technologies. For

example, airlines can increase their available options by choosing to retro-fit rather than line-fit new aircraft, as it is quicker and easier for an emerging supplier to get the necessary regulatory certifications for a retro-fit. Airlines can also delay retro-fits to wait for new technology to emerge (there is much less flexibility over timings for line-fits).

How we assessed the Merger

17. The market for the supply of IFC services is evolving rapidly, and significant new developments have taken place during our phase 2 investigation: OneWeb and Starlink successfully launched many more satellites, OneWeb announced its distribution partnership with Panasonic, Eutelsat launched a new GEO satellite that will provide capacity over Europe, Starlink's IFC service went live on commercial aircraft in the United States, Starlink obtained FCC authorisation to launch an additional 7,500 satellites and Starlink won its first contract with a European airline. The evidence suggests these trends are likely to continue.
18. Our approach to assessing the Merger is forward-looking, and accounts for the future evolution of competitive conditions. This includes developments in the Parties' competitive offers as well as the competitive offers of their rivals. We adopted a time horizon of a few years for our assessment. We consider that any impact from entry or expansion by rivals that only manifests itself after this time horizon would not be sufficiently timely to be relevant to our assessment of the loss of competition between the Parties resulting from the Merger.
19. We have gathered a substantial volume of evidence to assess the impact of the Merger. This includes evidence on recent tenders, the Parties' internal documents relating to tenders, information on the Parties' and their rivals' strategic plans (including internal documents) and evidence from airlines, SNOs/SSPs and OEMs, including their views and assessment of emerging technologies and suppliers.
20. To assess the impact of the Merger we first considered the extent of competition between the Parties that would be lost because of the Merger, and then considered whether that loss would be substantial in view of the constraints that the Merged Entity would face post-Merger from emerging and established rivals. Below we set out our findings first for commercial aviation IFC and then for business aviation IFC.

Competition between the Parties and how this would evolve

21. Both Parties have been growing faster than other established suppliers of IFC services, regularly bid against each other in tenders, identify each other in internal documents as likely rivals in upcoming tenders and are regarded as strong alternatives by airlines. Our analysis of a sample of tenders that relate to IFC on aircraft that are most likely to serve UK customers shows that the Parties have won more contracts for IFC services between January 2020 and September 2022 than other suppliers.
22. Both Parties also have plans to launch additional satellites in the next few years that will significantly increase their capacity and, in Viasat's case, its geographic coverage (where it has relied on capacity from third parties historically).
23. We have therefore provisionally concluded that the Parties compete closely and would likely remain close competitors in the next few years absent the Merger.

The constraint from established suppliers and how this would evolve

24. The Parties currently compete principally with three established suppliers of IFC services: Intelsat, Panasonic and Anuvu. We considered the likely constraint they would exert on the Merged Entity.

Intelsat

25. Intelsat filed for Chapter 11 bankruptcy in May 2020 from which it emerged in May 2022. In December 2020 it acquired Gogo's commercial aviation business and became a vertically integrated supplier.
26. Intelsat supplies IFC services that use GEO satellite capacity sourced from a combination of Intelsat's satellites and satellites owned by third parties. Intelsat plans to launch additional GEO satellites to improve its access to GEO satellite capacity in the next few years.
27. Intelsat also recently started to commercialise hybrid LEO/GEO IFC services that will utilise OneWeb's LEO capacity, once its constellation is ready to support IFC, and Intelsat's GEO satellite capacity.
28. Although we recognise there is some uncertainty, we consider it likely, based on the evidence we have received, that this hybrid IFC service will be

successfully deployed in the next few years. Following successful satellite launches between October 2022 and January 2023, 80% of OneWeb's fleet is now in orbit and OneWeb has two launches remaining to complete its first generation constellation, at which point it will offer global coverage. Stellar Blu, a technology supplier, has developed the equipment (electronically steered antenna, or **ESA**) that is required to supply Intelsat's hybrid LEO/GEO IFC services to aircraft. We received consistent feedback from both airlines and SSPs/SNOs that hybrid services are an attractive proposition, as they combine the best technological characteristics of GEO satellites and LEO satellites. In January 2023, Intelsat won its first customer for its hybrid GEO/LEO IFC service, Alaska Airways, which has said publicly that it expects the service to go live on some of its aircraft in early 2024.

29. Intelsat's position in IFC globally has declined in recent years measured by the share of active aircraft globally with its IFC services installed. However, it has bid and is bidding on a wide range of opportunities, is regarded as a strong IFC supplier by most airlines, and has recently won IFC contracts. We expect that its vertical integration following the acquisition of Gogo, improved balance sheet following its emergence from Chapter 11 and the launch of its hybrid GEO/LEO IFC services and additional GEO satellite capacity will improve its competitive offer.
30. We have therefore provisionally concluded that Intelsat would likely be a significant constraint on the Merged Entity in the next few years.

Panasonic

31. Panasonic supplies IFC services that use GEO satellite connectivity sourced from satellites owned by third parties.
32. In October 2022, Panasonic announced that it had entered into a distribution agreement with OneWeb that will allow it to offer hybrid LEO/GEO IFC services that will utilise OneWeb's LEO constellation once it is ready to support IFC. Panasonic will also have access to additional GEO satellite capacity from Eutelsat following Eutelsat's recent satellite launch.
33. Panasonic's market position has remained relatively stable over the last five years, it frequently bids on a wide range of opportunities, regularly competing with both Parties in tenders, it is seen as a strong supplier of IFC by most airlines and it has won recent IFC contracts.
34. While recognising there is some uncertainty, for similar reasons as for Intelsat, we expect that Panasonic's launch of a hybrid service will improve its competitive offer. Panasonic's services will rely on the same LEO

constellation (OneWeb) and use the same ESA (by Stellar Blu). A number of third parties (including airlines and SSPs/VARs) have said that they believe that Panasonic's partnership with OneWeb is a potential source of future strength, and Panasonic is, like Intelsat, a well-established IFC supplier.

35. We have therefore provisionally concluded that Panasonic would likely be a significant constraint on the Merged Entity in the next few years.

Anuvu

36. Anuvu bids against the Parties in tenders less frequently than the Parties bid against each other or Intelsat or Panasonic, and was seen as a weaker IFC supplier by airlines. However, it does bid for and win contracts for narrowbody aircraft.
37. We have therefore provisionally concluded that Anuvu would likely be a moderate constraint on the Merged Entity in the next few years, but only for narrowbody opportunities.

The constraint from emerging suppliers and how this would evolve

38. Starlink, Amazon, Telesat and OneWeb have all launched, or have plans to launch, LEO constellations.
39. OneWeb has agreed to supply satellite capacity to Intelsat and Panasonic, and we have considered any impact from OneWeb's entry in our assessment of those suppliers. Other than Starlink, we do not consider that there is sufficient evidence to show that entry by any other players in IFC will be sufficiently likely and timely to impact our analysis.
40. Our assessment of emerging players has therefore focused on the constraint that Starlink would likely exert on the Merged Entity.
41. Starlink has achieved significant milestones since it won its first contract to supply IFC services in April 2022, including many during the course of our phase 2 investigation.
42. Starlink has won a number of additional contracts covering different regions (United States, Asia Pacific and recently Europe), aircraft types (widebody and narrowbody) and airlines (both low cost carriers (**LCC**) and full-service carriers), showing that Starlink is already capable of winning contracts with a broad mix of customers. Starlink's award of a contract by airBaltic in January

2023 represents its first win with a European airline, and for aircraft that will fly to and from the UK.

43. Starlink's IFC service is now live on passenger flights in the United States. Test data shows the quality of its IFC service is high. Starlink is also continuing to launch additional satellites – in 2022 alone it launched more than 1,700 satellites and recently received approval to launch 7,500 more. Future satellite launches will increase its capacity and geographic coverage and will likely improve the quality of IFC service that Starlink can provide at airport hubs and other areas where there is concentrated demand.
44. Most airlines told us that Starlink is a strong or very strong supplier of IFC. Several airlines explained that they had rated Starlink based on its future potential and responded to us prior to many of the developments described above. Although some airlines told us they would want to see how Starlink performs in real-life commercial flights or see the results of rigorous testing before they would select Starlink as their supplier, feedback from airlines overall suggest that they have confidence that Starlink is likely to succeed and to be a strong competitor.
45. Starlink has competed with the Parties on some recent tenders, and we have seen some evidence of airlines using Starlink as leverage to extract better terms from the Parties. We recognise that the strength of the constraint that Starlink will exert on the Merged Entity will vary from contract to contract depending on the routes the aircraft will fly, whether the opportunity is for line-fit or retro-fit installation and the airline's appetite for risk, but, overall, we expect it will increase over the next few years.
46. Although we recognise there is some uncertainty, we expect Starlink to become a stronger competitor to the Merged Entity over the next few years as it launches additional satellites, obtains more certifications, builds its customer support network, adapts its commercial model, gains more experience and data from serving customers and can demonstrate to other potential customers that its technology is mature.
47. We have therefore provisionally concluded that the constraint from Starlink will likely grow and that Starlink would likely become a significant constraint on the Merged Entity in the next few years.

Provisional finding for commercial aviation

48. The evidence we have assessed has led us provisionally to conclude that, while the Parties compete closely and would likely remain close competitors

absent the Merger, the aggregate constraints the Merged Entity would likely face from other rivals are significant and are likely to increase, such that the Merger may not be expected to give rise to an SLC as a result of horizontal unilateral effects in the supply of broadband IFC services to commercial airlines serving UK consumers.

Provisional finding for business aviation

49. We have also considered the Merger's effect on the supply of IFC to business aviation customers. Supplying IFC to business aviation customers has many of the same features as supplying it to commercial airlines. Currently the Parties compete closely as the two main providers offering satellite-based IFC to business aviation customers outside North America. However, we expect other suppliers to expand and improve the services they offer in the next few years. Gogo, currently the largest supplier in North America (where most business aviation customers are based), has signed an agreement with OneWeb that will allow it to offer a global service. Starlink is also targeting business aviation customers. Two further suppliers, Intelsat and Satcom Direct, are also likely to expand and improve what they currently offer leveraging their respective positions in closely related markets.
50. We have therefore provisionally concluded that the aggregate constraints the Merged Entity would likely face from other rivals are significant and are likely to increase such that the Merger may not be expected to give rise to an SLC as a result of horizontal unilateral effects in the supply of broadband IFC services to business aircraft owners serving UK consumers.