

USER CONSULTATION PLATFORM 2020

MINUTES OF MEETING OF THE GOVERNMENTAL SESSION

Meeting Date	02.12.2020	Time	14:00 to 18:30
Meeting Called By	UCP Session	Location	Online event
Minutes Taken By	David LIERMANN (GSA) Philipp SCHEIDEMANN (GSA)	Next Meeting Date	UCP 2022
Panellists	Flavio SBARDELLATI (GSA), Session moderator Fiammetta DIANI (GSA) Stefano SCARDA (DG DEFIS) Alessandro CARROTTA (DG ECHO) Krzysztof CYBULSKI (Polish MoD) Miguel SAIZ (EEAS-CPCC) Darek SAUNDERS (Frontex) Geoffroy BEAUDOT (Lux – Ministry of Foreign and European Affairs) Alfonso PÉREZ de NANCLARES (Spanish MoD) Enrico RUSSO (ASI) Sergio ALBANI (SatCen) Paula SAAMENO (SatCen) Kinga GRUSZECKA (POLSA) Ewelina KAATZ-DRZEZDZON (POLSA)		

Agenda Items	Presenters/panelists
1. Welcome to participants	Fiammetta DIANI (GSA)
2. Introduction of EU GOVSATCOM	Stefano SCARDA (EC DG DEFIS)
3. Coordination of the Network of Users (ENTRUSTED)	Flavio SBARDELLATI (GSA)
4. User perspective for secure SatCom in the EU	Alessandro CARROTTA (DG ECHO) Krzysztof CYBULSKI (Polish MoD) Miguel SAIZ (EEAS-CPCC) Darek SAUNDERS (Frontex)
5. Secure SatCom capabilities in the EU	Geoffroy BEAUDOT, Lux MoFA Alfonso PÉREZ de NANCLARES, Spanish MoD Enrico RUSSO Italian Space Agency (ASI)
6. Review of EU GOVSATCOM user needs and use cases	Sergio ALBANI (SatCen) Paula SAAMENO (SatCen)
7. Secure SatCom user requirements survey strategy	Kinga GRUSZECKA (POLSA) Ewelina KAATZ-DRZEZDZON (POLSA)
8. Final Q&A	-

ASI	Italian Space Agency
CPCC	Civilian Planning and Conduct Capability
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance
DG DEFIS	Direction General Defense Industry and Space
DG ECHO	Direction General European Commission Humanitarian Aid Office
EDA	European Defence Agency
EEAS	European External Action Service
EU	European Union
FRONTEX	European Border and Coast Guard Agency
GOVSATCOM	Governmental Satellite Communications
GSA	Global Navigation Satellite Systems Agency
HD	High Definition
HLUN	High Level User Needs
IoT	Internet of Things
LEO Satellite	Low Earth Orbit Satellite
MSS	Mobile Satellite Service
MOC	Mission Operation Center
MoD	Ministry of Defence
NCBC	Polish National Cyber Security Centre
NOC	Network operation Center
NoU	Network of Users
SATCEN	European Satellite Center
POLSA	Polish Space Agency
RPAS	Remotely Piloted Aircraft Systems
U.S. DoD	United States Department of Defence
WGS	Wideband Global Satcom

Minutes of Meeting

The *Governmental* session of the third User Consultation Platform (UCP) took place on 2nd December 2020 as an online event. The panel gathered **over 200** participants representing both relevant governmental organisations and industry.

The agenda is introduced by Flavio SBARDELLATI (FS), GSA Market Development at GSA and ENTRUSTED project coordinator.

No comments are raised by the participants and the meeting starts following the proposed agenda.

1 WELCOME AND INTRODUCTION

The participants are welcomed by Fiammetta DIANI (FD), Head of Market Development at GSA, who highlights the importance of the EU GOVSATCOM programme for the EU and its Member States.

FD highlights the importance of:

1. building and maintaining solid user needs and the path to consolidate the requirements starting from the User Consultation Platform (UCP) and to enlarge the network of governmental users to establish the GOVSATCOM user community.
2. understanding the exact needs of the GOVSATCOM users via the ENTRUSTED consortium, with the aim to build the needed GOVSATCOM services.
3. matching the EU priorities for a secure satellite communication system with the needs of the EU and its Member States.

In conclusion, FD wishes all the participants a very good and constructive UCP session.

2 INTRODUCTION OF EU GOVSATCOM BY EC DG DEFIS

Stefano SCARDA (SS) highlights that, as the EU GOVSATCOM programme is starting right now, it is of utmost interest of the EU governments in view of the non-dependence of the EU and its sovereignty.

It is essential to find a harmonized approach for satellite connectivity following an approach of pooling and sharing of secure SatCom to be provided by the Member States or private service providers. Among others, the main points presented to the participants are:

- The EU GOVSATCOM component is important for the growth of the whole EU space programme along with its existing and new components;
- The upcoming Space regulation is essential as well as the specific Implementing Acts for the EU GOVSATCOM component;
- For the implementation of the EU GOVSATCOM programme, the users are of fundamental importance and the ENTRUSTED project is a key contributor to this objective.

3 COORDINATION OF THE NETWORK OF USERS (ENTRUSTED) BY GSA

Flavio SBARDELLATI (FS) presents the ENTRUSTED mission and highlights its main expected outcomes and the roadmap.

Thirteen (13) Member States and eight (8) EU Agencies are today represented in the ENTRUSTED consortium, jointly contributing to the definition of the user perspective needed for the establishment of the EU GOVSATCOM programme. FS also describes the proposed process to collect the requirements from the end users.

All project members will act as primary interface toward their respective user communities and will contribute by collecting the necessary information in the scope of an upcoming user survey, which is presented later on in today's session.

The network of users is still open for new organisations willing to represent and voice their users.

FS recalls the use case families' baseline defined in the High-Level Civil Military User Needs for Governmental Satellite Communications (GOVSATCOM) (HLUN):

1. Crises management
2. Surveillance
3. Key infrastructures

As well as additional Specific use cases (e.g. coverage of the Arctic region, RPAS and M2M).

The ENTRUSTED Roadmap is presented, clarifying the key role of today's workshop as initial step of a wide consultation with secure SatCom users.

SS recalls the importance to define user requirements to consolidate the EU GOVSATCOM infrastructure and its delivered services.

A question is raised on what is the relation between EDA pooling and sharing demonstration and EU GOVSATCOM?

GSA replies and EDA complements: EDA is a member of the ENTRUSTED network and will contribute to shaping the user perspective which will be the basis for services provided by EU GOVSATCOM through a pooling and sharing (P&S) scheme. The target for EDA pooling and sharing demonstration is military use cases, whereas the EU GOVSATCOM will address the needs of governmental users.

4 USER PERSPECTIVE FOR SECURE SATCOM IN THE EU

The benefits derived from the use of secure SatCom are extensively discussed with selected target users in a dedicated roundtable. Each speaker/panellist briefly presents its organisation perspective and actual use of secure SatCom. Afterwards three questions are asked by the GSA moderator (FS) to each of the speakers/panellists.

An overview of the initial presentations is reported here:

DG ECHO (Alessandro CARROTTA, AC):

AC introduces the Union Civil Protection Mechanisms, the role of the Emergency Response Coordination Centre (ERCC) and the relevant communication needs.

He highlights the need to complement Earth Observation services with EU GOVSATCOM and he also presents the types of SatCom systems and services currently in use by DG ECHO . AC mentions that DG ECHO currently uses a variety of services and relevant providers.

The use of SatCom is of high importance during natural disasters to enable a reliable connection in absence of alternative secure means. Remotely controlled systems (RPAS, automated vehicles and vessels) are increasingly employed and highly reliable Earth Observation services for early warning do not exist yet.

FS asks DG ECHO whether and in what manner security is critical for satellite communication employed by ECHO missions.

AC replies that security is already partially met by existing systems in use at ECHO. However, there is a major challenge for the near future of ECHO missions concerning cyber security for services like voice, imagery, data etc.. ECHO missions often rely on automation for which reliability is a key dimension and remote sensing/IoT, for which secure communications robust against cyber threats is of utmost importance, such as for RPAS in maritime operations.

EEAS-CPCC (Miguel SAIZ, MS):

MS introduces the CPCC in the EEAS and highlights the following important points related to their missions: EEAS-CPCC is in charge of civilian missions mainly in Africa, Europe and Middle East. He presents the actual use of SatCom and mentions that it is of critical importance for missions of EEAS. MS elaborates on the planned use of SatCom with respect to the current usage.

Frontex (Darek SAUNDERS, DS):

Even if Frontex is not in position to formally join the ENTRUSTED consortium, DS underlines the intention to be associated to the ENTRUSTED mission, by expressing the Frontex needs as an external contributor.

DS elaborates on the actual secure SatCom needs at Frontex. Based on the Frontex Regulation, GOVSATCOM is required for the Standing Corps, land and maritime border surveillance, operations and rapid border interventions.

He describes the main use cases and areas where coverage by SatCom is a need. Scattered services are needed for maritime surveillance while, when it comes to localised missions (i.e. land surveillance, operational areas), then higher SatCom capacity needs to be made available.

Polish Ministry of Defence / NCBC (Krzysztof CYBULSKI, KC):

KC presents the NCBC unit of the Polish MoD and shares important elements to be considered for the future secure SatCom network of EU GOVSATCOM. He also recommends to well capture the already identified needs specified in the HLUN and reminds the main aspects concerning the full SatCom transmission chain.

The roundtable starts moderated by FS who asks the following questions:

What does secure SatCom mean for your users and how are these needs met today?

- **KC:** Explains that the security level depends on the mission to be achieved and where the mission takes place. A combined use of different systems from commercial, governmental and military operators could increase the security. MSS have to rely on multiple providers and this introduces the need of adding security at multiple levels.
- **DS:** Agrees with KC and highlights the approach of GOVSATCOM described with the High Level User Needs, where security focusses on avoiding interception and jamming, and sets the main focus on crypto technology to increase the security. He adds the need that high data throughput and satellite bandwidth are critical for the streaming of HD video surveillance.
- **KC:** Adds that the inclusion of commercial satellites in EU GOVSATCOM might increase the risk of interception. The identified gaps associated to the current SatCom landscape derive from the need to also rely on commercial satellites which do not meet the required security level and as such are not protected against jamming and interception.
- **MS:** Replies that the security dimension of the communication also concerns high availability.

What is your experience when it comes to access of secure SatCom services via existing terminals?

- **KC:** Highlights the importance of interoperability for terminals to avoid duplication of the user terminals or over-complexity at hub level. He adds that the time should be reduced to install the terminal to access the network and enable services. For commercial and governmental services, systems with a dual use character are needed, with multi-band and in different orbits. He explains the current need to certify each individual operator with its service which could be reduce the effort by implementing common standards.
- **DS:** Agrees that interoperability is important and adds that affordability is one of the factors considered by Frontex when choosing the terminals. Minimum technical requirements should be defined via dedicated standardisation actions.
- **MS:** Agrees with DS and KC that today SatCom is provided by several different vendors and service providers, without full interoperability between the systems and services. The standardisation of hardware and services could be a way to enable interoperability. In addition, he adds that one factor is the user-friendliness of the terminals, which is important to reduce the training time and cost, for organisations experiencing significant personnel

turnover.

What are your views on what the SatCom services should look like in 5-10 years? Do you see any specific or major global or EU trend which should be considered for the evolution of secure SatCom?

- **KC:** For the future, an increased number of military missions is expected. Therefore the network must be flexibly upgradable with adaptable bandwidth, ready to offer increased SatCom mobile services. In addition, access to services should become more user friendly. A One-Stop-Shop model with an unambiguous catalogue of services would be advantageous, which includes the equipment to facilitate the choice for the end user according to its needs.
- **DS:** He expects systems and networks with increased reliability and bandwidth availability as data amounts are steeply increasing, mostly for unmanned applications.
- **MS:** The services could become more affordable as the price of bandwidth will decrease due to the upcoming LEO SatCom constellations. This would lead to an increased affordability which would be important to expand the use of the services.

FS concludes the roundtable summarising the main elements emerged in the roundtable: Flexibility, time to deploy, bandwidth increase, simplicity of use and affordability. Furthermore, as mentioned by some panellists, governmental users need to rely on integrated space-based services which will be offered in a synergetic manner by the EU space programme components, leveraging Communication, Navigation and Earth Observation.

5 SECURE SATCOM CAPABILITIES IN EU

Sergio ALBANI, SA (SatCen) moderates the session devoted to secure SatCom capabilities in EU.

ASI (Enrico RUSSO, ER) presents the SatCom related assets and on-going initiatives in Italy. They include the current Athena-Fidus telecommunication satellite as well as the planned ITAL-GOVSATCOM satellite expected to be available in 2026 with payloads in Ka and SHF band. ER emphasises the synergies between the Italian governmental satellites/services and EU GOVSATCOM. He announces a demonstration and promotional platform called I-HUB, which will be made available for the new satellite and services.

Luxembourgish Ministry of Foreign and European Affairs (Geoffroy BEAUDOT, GB) presents the ambitions and challenges to fulfil the SatCom needs of Luxembourg with limited resources. He highlights the collaboration with the US DoD for the WGS interoperability and joint operations in the frame of the communication satellite LuxGovSat. GB explains the LuxGovSat services, providing end-to-end secure SatCom solutions and the dual use character for defence and institutional customers of the satellite and services, including management of services with hosting capabilities, teleport with secured Mission Operation Center (MOC).

Spanish Ministry of Defense (Alfonso PÉREZ de NANCLARES, AN) gives an overview of the SatCom assets owned by the Spanish Ministry of Defense, including the two communication satellites XTAR (co-owned by US and ES) and SpainSat providing services for land, maritime, aerial C4ISR and Cyber domain. AN explains the operational framework in place through the Public-Private partnership Hisdesat and presents the capabilities of Hisdesat, the two satellites and the teleports. To increase the future capabilities, he shows the requirements on increased data rates, flexibility, security of the communication link of the space and ground segment for the next generation of SpainSat and gives a status of the development.

6 REVIEW OF EU GOVSATCOM USER NEEDS AND USE CASE

The review of EU GOVSATCOM user needs and use cases is presented, which aims to identify all potential users, to structure the use cases and to reflect the user needs in the consolidated document.

SatCen (Paula SAAMENO, PS) explains the workflow of the review of User Needs and Use Cases within the ENTRUSTED project. She presents the identified User communities and the interactions between each other. PS also describes the field of applications and shows the currently identified use cases of the User Needs review. PS presents the plan of ENTRUSTED to collect, via a wide survey, all user needs from the governmental and military community and ultimately generate a User Requirements Document. She also recalls the possibility for additional organisations to join the consortium and enlarge the Network of Users (NoU) as part of ENTRUSTED.

POLSA (Kinga GRUSZECKA, KG) presents the strategy of the survey to be launched by the ENTRUSTED consortium. She describes the objective of the survey, which is to thoroughly investigate and define the state of the art of the user needs and the associated downstream technology and services for secure SatCom in EU with the aim to support the development of the EU GOVSATCOM. She explains the technical aspects of the survey and provides an overview of the channels that will be set up for this purpose. KG mentions that the survey is planned to have a duration of 3 months and the website www.entrusted.eu where the most relevant (unclassified) outcomes of the project will be made available.

7 FINAL Q&A

The participants are invited to raise further questions to the speakers/panelists. The following questions are received and answered:

- **What is the envisaged pricing scheme for the EU GOVSATCOM services?**
The European Commission (SS) underlines that EU GOVSATCOM is meant for EU and its MS users and the associated pricing scheme is not identified yet. Among the objectives for next year, a thorough assessment of the relevant Use Cases will be made which will also support the development of the EU GOVSATCOM pricing scheme.
- **What is the position of ENTRUSTED in relation to industry and resources providers? Is it possible to participate in the project as observer to be informed about the progress and the resulting user requirements, use cases and gap analysis? Are results expected to be confidential or classified information?**
FS explains that ENTRUSTED participation is limited to nominated representatives of EU and national institutions. It is part of the participating conditions set for the H2020 call which ENTRUSTED belongs to. However, relevant stakeholders will have the possibility to express their needs and observations via participating to the survey, via the relevant national ENTRUSTED representative.

FS recalls that any further or unanswered question related to users and user technology is duly noted down and will be considered to populate a dedicated Q&A section in the ENTRUSTED website, which is expected to be up and running as of Q1 2021.

Conclusions

As presented by the European Commission, the Union is about to establish a new space programme component which will provide secure, reliable and cost-effective satellite communication services to the Union and its Member State authorities.

The relevant users are asked to express their needs, whose collection will be facilitated by the ENTRUSTED consortium who will ultimately turn them into requirements.

The today's first governmental UCP session allowed to consult selected target users with respect to key needs and existing gaps that the EU GOVSATCOM is set to fill. The UCP marked an important milestone in view of the upcoming survey which will be run by the ENTRUSTED consortium under the lead of the GSA and thanks to the active participation of all the ENTRUSTED members who will identify their respective User Communities and directly interface with each of them with the aim to define a consolidated and prioritised set of secure SatCom user requirements.

A summary of the main outcomes of the UPC, and in particular of the consultation with the invited users, is:

- The demand for secure SatCom in EU is expected to grow in the next future, requiring increasing satellite capacity;
- In particular, the use of secure SatCom mobile satellite services is expected to increase due to a growing number of operations that rely on RPAS, Autonomous Vehicles and Autonomous Vessels;
- Concerning the SatCom terminals needed to access secure SatCom services:
 - Several non-compatible technological solutions exist today, often based on proprietary technology. It creates difficulties to users and missions. Therefore, user technology interoperability is considered essential, and is to be possibly attained through standardisation.
 - In addition, terminals shall be quickly deployable, affordable and user friendly, to reduce operational and personnel training costs.
- The services coverage should be able to support users and missions inside and outside EU borders;
- Security of the services is a key need. Cyber-security is considered among the main challenges for the future SatCom services:
 - The security needs differ from user to user, and the definition of more than one security level might be the solution to provide each user with the requested security profile.

The GSA thanks all panellists and attendees for their active participation and invites all of them to the next governmental UCP planned in 2022, which will be enlarged to address the needs of the governmental user communities from a broader perspective, elaborating on integrated Use Cases and leveraging Communications (GOVSATCOM), Navigation (European GNSS, i.e. Galileo and EGNOS) and Earth Observation (Copernicus) in a synergetic manner.

With this final remark the governmental session of the UCP 2020 is closed.



Other Notes & Information

With the contribution of:

Annexes & Attachments



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