

# ICT Disruptive Technologies: Starlink in Ukraine Case

Oleksandra Yeremenko  
V.V. Popovskyy Department of  
Infocommunication Engineering  
Kharkiv National University of  
Radio Electronics  
Kharkiv, Ukraine  
oleksandra.yeremenko@nure.ua

Oleksandr Lemeshko  
V.V. Popovskyy Department of  
Infocommunication Engineering  
Kharkiv National University of  
Radio Electronics  
Kharkiv, Ukraine  
oleksandr.lemeshko@nure.ua

Mykhailo Persikov  
V.V. Popovskyy Department of  
Infocommunication Engineering  
Kharkiv National University of  
Radio Electronics  
Kharkiv, Ukraine  
mykhailo.persikov@nure.ua

Valentyn Lemeshko  
V.V. Popovskyy Department of  
Infocommunication Engineering  
Kharkiv National University of  
Radio Electronics  
Kharkiv, Ukraine  
valentyn.lemeshko@nure.ua

## ABSTRACT

Currently, disruptive technologies make fundamental changes in markets and industry and are vital in providing critical services. Starlink is such a technology provisioning global Internet access. Thus, there is an urgent need to deploy the Starlink in Ukraine for reliable Internet access to restore destroyed territories.

## CCS CONCEPTS

• Networks • Security and privacy

## KEYWORDS

Internet, Starlink, Resilient networking, Critical infrastructure

## 1 Introduction

According to the definition, digital disruption technologies include those that lead to significant changes in a particular social sphere or industry through digitalization and the introduction of the latest technological solutions. In the case of infocommunication technologies (ICT), such areas often include: artificial intelligence, blockchain, 3D printing, augmented reality, Internet of Everything, Cloud Computing, etc. These technologies are used everywhere to digitalize an individual's living space and the information society. It isn't easy to single out such a direction in networking that would not implement the aforementioned technologies. However, the introduction and use of the most promising communication infrastructure project, Starlink, which currently disrupts the telecommunications sector, deserves special attention. In a nutshell, Starlink is a satellite Internet constellation being constructed by SpaceX that aims for global coverage and Internet access. Its value is difficult to overestimate when it is necessary to provide network services under challenging

conditions, where network access is unreliable, expensive, or unavailable [1].

## 2 Starlink in Ukraine

According to the official data of the Ministry of Digital Transformation, as of the beginning of May 2022, there are about 150,000 active Starlink users in Ukraine, and more than 10,000 Starlink terminals are in service.

The benefits of Starlink deployment are as follows:

1. Starlink provides a high-speed internet connection to remote locations in Ukraine and supports end-users in conflict zones where access is unreliable or unavailable.
2. Starlink equipment deployed on critical information infrastructures (CII). Terminals have been set up on energy companies, hospitals, and other objects of critical infrastructures.
3. Due to the excessive population growth in the western part of Ukraine, Starlink helps prevent the internet infrastructure's overload.
4. Starlink access improves reliability and creates backup connectivity for Ukrainians under network outages of essential telecommunications services.

## 3 Conclusion

The Starlink deployment's main aim is to overcome the communication difficulties in wartime when Internet access is vital but not guaranteed. The use of Starlink allows the creation of backup networking for CII in Ukraine.

## REFERENCES

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