Ukraine – conflict

ETC Situation Report #36

Reporting period: 01/06/2024 to 30/06/2024

The Emergency Telecommunications Cluster (ETC) was activated in Ukraine on 03 March 2022 following the escalation of armed conflict between Ukraine and the Russian Federation. ETC SitReps are distributed monthly.

Highlights

- Ukraine faces severe energy supply challenges due to the ongoing conflict, leading to power outages and increased damage to the telecommunications network. To address these increasingly urgent issues, the ETC is coordinating investigations into back-up connectivity solutions and GSM mobile coverage. The final report and recommendations of the cluster have been shared with UN IT staff, the Operations Management Team (OMT), and with the Security Management Team (SMT).
- The ETC is expanding the VHF radio network across eight priority sites along Ukraine's frontline to facilitate more robust security communications systems for UN staff in high-risk areas of the response. In June, installation of the equipment was completed in the first site—Zaporizhzhia.
- To enhance its services and the security of user accounts amid vigilant cybersecurity awareness, the ETC conducted a full review of its connectivity network in June, implementing a two-factor authentication for user management login and integrating network alerts with the ETC Helpdesk service to enable automatic incident recording, ensuring efficient monitoring and response times for network issues.

ETC installs equipment on the roof of a new office being used by UN agencies in Kharkiv after relocating due to active shelling. Photo: WFP/ETC

Overview

The International Organization for Migration (IOM) reports that as of April 2024, an estimated 3.5 million people remain internally displaced in Ukraine, while 6.5 million are refugees globally. IOM also estimates that 4.7 million people have returned to their place of habitual residence in Ukraine.

Power and energy infrastructure in Ukraine continues to be heavily impacted by the ongoing conflict, disrupting access to critical public services. An air strike on energy infrastructure in four regions on 20 June is the latest in a series of attacks which has removed half of Ukraine's energy generating capacity since March and has forced rolling blackouts.

Impact on telecommunications

As a result of the ongoing conflict, 25 percent of fixed telecommunications networks in Ukraine have been damaged and 4,300 mobile base stations have been either destroyed or damaged. Cyber attacks further burden operators serving large roaming traffic for almost four million Ukrainian refugees.

The government of Ukraine has supported an initiative law allowing faster land leases to construct mobile stations. This will help to provide mobile communications and internet networks in rural areas of Ukraine.

ETC Activities

Coordination

On 06 June, high-level officials at the Security Management Team (SMT) meeting focused on the increasingly urgent telecommunications issues faced by UN agencies during power outages. The ETC—in attendance at the SMT—is coordinating the investigations into back-up connectivity solutions and GSM mobile coverage alongside key UN ICT personnel. The final report and recommendations have been shared with UN IT staff, the Operations Management Team (OMT), and with the SMT.

The challenges to Ukraine's energy infrastructure were also addressed during the Inter Cluster Coordination Group (ICCG) meeting held on 18 June—attended by the ETC—with discussions on incorporating these challenges into the needs and response planning, gap analysis, as well as the timeline for the 2025 Humanitarian Needs and Response Plan (HNRP).

The ETC is supporting the UN community in Kharkiv to relocate and equip the new office building with telecommunications equipment. The office was relocated due to its close proximity to active areas of shelling.

Security communications (radio)

VHF radio network

The ETC and partners are facilitating the expansion of the existing VHF radio network across eight priority sites—Kehychivka, Kropyvnytskyi, Mykolaiv, Orly, Pokrovsk, Poltava, Sumy, and Zaporizhzhia—which are managed by the Ukrainian Broadcasting, Radiocommunications & Television Concern (BRT). The expansion will facilitate more robust security communications systems for UN staff in high-risk areas of the response.

As part of the preparations to expand the VHF network, the ETC configured base stations for the UNDSS-managed Security Operations Centre (SOCs) as well as for each of the eight new sites throughout June. ETC missions are ongoing across the sites to assess and prepare towers, offices, power back-up facilities, and repeaters.

With support from partner—Cisco Crisis Response (CCR)—new network security devices were tested and configured to provide data connectivity at the new VHF remote sites.

On 05 June, the ETC met with the supplier—Ukrradioservice (URS)—to plan the installation of the VHF infrastructure at the eight sites. The supplier confirmed an estimated an overall installation timeline of two months. URS began installations at the first site—Zaporizhzhia—on 27 June, and this has now been completed. The ETC also installed Remote Security Operations Centre (RSOC) equipment and tested the coverage of the VHF radio repeater there.

Further to this project plan to expand VHF radio services to UN staff across eight new sites, the ETC and UNDSS are also planning the deployment of a VHF radio network dedicated to Non-Governmental

Organizations (NGOs). The International NGO Safety Organisation (INSO) identified nine required service locations in consultation with the NGOs and a contract has been signed and shared with the vendor to initiate the deployment of the network.

Remote Site on Vehicle (RSoV) project

The ETC continues to deploy the RSoV project—a pilot mobile VHF radio solution that offers secure communications in UN armored vehicles operating in high-risk areas. Since the RSoV project began in June 2023, a total of five RSoV kits have been used for inter-agency convoys to high-risk areas hosted by the ETC team in Dnipro, Odesa, and Kharkiv. ETC has also supported UNHCR in building two kits and UNFPA in building one kit to be used for their single-agency missions.

Currently, the ETC is supporting WHO in planning for seven RSoV kits, and seven vehicles are being cabled to support the solution.

To sustain capacity to build the RSoV kits, the ETC has finalized a Long-Term Agreement (LTA) with a local supplier.

Radio programming

During the reporting period, the ETC programmed the following VHF hand-held radios:

- Two radios for the WFP security officer in Odesa
- One for the OHCHR local security assistant in Dnipro
- Two for the UNDSS office in Kharkiv
- One for the UN Resident Coordinator's Office (UNRCO) in Kyiv
- One for IOM in Lviv
- Additionally, six VHF hand-held radios were reprogrammed for UNESCO and seven for WFP.

The ETC also updated and synchronized the radio programming database to ensure all records were current. On 25 June, a radio check exercise was carried out to verify the functionality and reliability of the programmed radios.

ETC radio programming services can be requested via email through a ticketing system: ukraine.etcservicedesk@wfp.org.

Capacity building

On 06 June, the ETC and UNHCR delivered Security Communications System (SCS) training for 20 IOM staff participants in Vinnytsya.

On 07 June, a further 17 participants from UNICEF, IOM, and UNDP were trained in SCS in Poltava.

From 10 to 11 June, eight UNHCR participants received training from the ETC in Kharkiv.

Radio capacity building sessions are offered by the ETC to UN agencies to ensure staff are informed and equipped to respond to security incidents in the field. To book security communications training sessions, please use this link.

Telephony

Last month, the ETC conducted several tests on satellite phones in areas where they are used by humanitarians as part of the security communications system in Ukraine. Low reliability of the Iridium network in Kyiv, Dnipro, and Odesa was escalated to the network provider by the ETC.

Following this, the ETC conducted further tests in June with the Iridium technical team in Kyiv. Although the tests showed a slight improvement, there was still an overall low success rate to connect.

Further, additional tests performed in Kharkiv, Dnipro, Odesa, and Lviv had unreliable connections, excepting Lviv.

The ETC will continue to explore alternative satellite communications options.

Data connectivity

The ETC supports data connectivity services in the inter-agency hubs in four common operational locations—Odesa, Kharkiv, Mykolaiv, and Lviv. The services employ advanced firewall protection implemented in collaboration with partner—Cisco Crisis Response—since March 2024.

To improve user access and experience of its data connectivity services, the ETC conducted a full review of its connectivity network in June including updates and configurations. Since 17 June, the cloud platform now uses a two-factor authentication for user management login, enhancing the security of user accounts.

Further, network alerts have been integrated with the ETC Helpdesk service to enable automatic incident recording, ensuring efficient monitoring and response times for network issues. These measures will strengthen the communications infrastructure supporting UN operations in Ukraine.

A data connectivity assessment was conducted at the Summit Business Centre in Kyiv to improve back-up connectivity services there. The Centre accommodates UN agencies including UNOCHA, UNRCO, UNDP, UNICEF, WHO, UN Women, UNDSS, and UNOPS.

Services for communities

The ETC is planning a mission with partners to strengthen data connectivity services in the Mykolaiv region. This follows a request from the local authorities to link mental health and rehabilitation centers with local medical and social services, particularly for affected populations, including those internally displaced located in remote communities.

Dashboard

See the ETC Dashboard for an overview of service locations.

Funding

In 2024, the ETC in Ukraine is 73 percent funded out of a budget requirement of US$1.5 million to continue to deliver vital communications services. The ETC currently has a balance of US$470,000 from funding received in 2023, covering ETC activities until the end of 2024.

Funds received by the ETC in 2023 were carried over to complete critical projects, including US$921,000 received in May 2023 from the Government of Japan and a US$500,000 in-kind equipment donation received in February 2024 from Cisco Crisis Response to secure the VHF radio backbone network in Ukraine.

Challenges

The ongoing conflict has impacted energy and telecommunications infrastructure. Half of the country's energy capacity has been lost, leading to rolling blackouts and the loss of vital internet and

communications services. The ETC is providing a backup energy solution by using mobile power stations such as Bluetti.

The ETC is facing a major satellite phone (Iridium) network challenge in most of the larger cities in Ukraine and is working on alternative solutions.

There is no reliable satellite phone network across the whole country.

The risk of cyber-attacks is considered high in the region.

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www.etcluster.org/emergency/ukraine-conflict

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