

TELECOM

SD-WAN-AS-A-SERVICE

JEVERA's Delivery Head, Lesia Kasian explaining, what are SD-WAN and SD-WAN-as-a-Service and how enterprises can benefit from both approaches. Discover on p.08



RETAIL

eCOMMERCE IN 2023

Following the Shopify report, in 2022, eCommerce sales worldwide are USD 5.4 billion. In the following year, they will grow up to USD 5.9 billion. What retailers should expect from 2023 to continue their commercial race? Read on to discover core trends and forecasts for the following year. p.27

#STANDWITHUKRAINE

the CEO's Notes

Hello!

I'm proud to present the third digital issue of the JEVERA MAG, where we are going to talk about digital transformation and tech solutions supporting domains like retail, telecommunication, and IT.

It's quite a tough time for Ukraine, but we are doing everything we can to get closer to peace. We work in underground parking, and metro stations because it's our duty. We have some team members abroad too. This is how we help the country's economy to stay as strong as possible. I thank everyone for your support and understanding. By the way, this issue was designed during air alerts as well.

As I mentioned, we keep on rocking. And exploring new markets. Recently our team returned from Dubai, where they were visiting the Middle East's major tech event - GITEX GLOBAL 2022. They've already started sharing the gathered insights on JEVERA's page on [LinkedIn](#). Many more are coming soon.

The third issue covers plenty of tech topics like IT Governance in Telecommunication (p.15) and Split Payments vs. POS Lending (p.24) but my all favorite one is about Ukrainian telecoms and how they restore networks on de-occupied territories (p.31).

Traditionally, thank you for supporting and #StandingWithUkraine.

Enjoy your copy of the MAG.



Anna Tyschenko
CEO @ JEVERA Software Solutions

CONTENTS

TELECOM | RETAIL | TECH

03 CEO'S Note

About the new MAG Q3 2022 issue, the topics we are writing to, and JEVERA news in brief.

04 Managed Service Providers and Their Role In SME Market Development

08 SD-WAN as a Service: Notes for Enterprises

Here, you will explore the SD-WAN as a Service from the business perspective, diving into its evolution, features, and pros helping enterprises operate smoothly under any conditions.

27 PECULIARITIES OF ECOMMERCE BUSINESS IN 2023

12 What Companies and State Authorities Do With 5G: Top Use Cases

Here we want to highlight the top five 5G use cases that can encourage you to think about the 5G deployment strategy right now.

15 All You Should Know About IT Governance in Telecom

IT Governance as a critical approach to ensuring better business outcomes. Learn more about telco companies applying it as a basis for their innovations and digital transformation.

18 What Business Leaders Should Know About Private 5G Networks

Here you'll discover why the new generation of private networks is often a must-have for enterprises in different domains. Why do business leaders think about its implementation? What results should they expect?



31 How to Save a Connection in Force-Majeure Conditions: Action Plan from Ukrainian Biggest Telecom



21

Top Examples of Digital Twins that Can Impress Telecom Providers

Telco companies fight with fierce competition daily. This rush makes them launch new services, try fresh approaches and develop to remain on the top. How do digital twins help their growth?



24

Choose the Right BNPL Method: Split Payments vs. POS Lending

For maintaining energy to repairing muscles runner and chef Isaac Mills shared some healthy diet plans on how to get that extra mile.



Managed Service Providers and Their Role In SME Market Development

The core aim of each business is to grow from a tiny startup to a full-fledged enterprise with affiliates worldwide. All managers think about business scaling and transformation because it's a natural part of the evolution in this field. However, how many obstacles are waiting for enthusiasts striving to achieve more! The budget issues, bold expectations, force-majeure...

Now, the foremost thing business leaders should

focus on is business digitization: migration to new technologies, modernization of legacy approaches, or even more - digital transformation as it is. The movement in the right direction is half of success.

However, for small and mid-sized enterprises (SMEs), every detail can affect the final result and lead to failure. Following CHAOS Report 2020, only 31% of projects were completed successfully. Most likely, their number will be a bit lower because of post-pandemic instability and the economic consequences of the Russian invasion of Ukraine, which affected almost the whole world. So, what helps such companies to survive? Who provides them with the software infrastructure and tools?

Managed service providers seem reliable allies for SMEs since they allow them to optimize business processes, cut costs and turn into mature & flexible businesses. Read on to explore how SMEs can benefit from service providers and how they are doing it now.

You may also like: [Why SaaS Products Run The World](#)



JEVERA Software · How Managed Service Providers Support SME

What is Managed Service Provider and How It Support SME Business Growing

"A managed service provider (MSP) delivers services, such as network, application, infrastructure, and security, via ongoing and regular support and active administration on customers' premises, in their MSP's data center (hosting), or in a third-party data center. The term MSP was traditionally applied to infrastructure or device-centric types of services but has expanded to include continuous, regular management, maintenance, and support."

Most software products businesses are using is part of a managed service provider's offering. Just look around, you can find samples anywhere starting with Google Drive and ending with Amazon marketplace. SaaS, IaaS, PaaS, no-/low code platforms, and other cloud services you use in daily activities are the results of managed service provider operation.

Considering the Gartner's point of view, we can assume that MSPs are companies offering cloud-based products ensuring a complete coverage of all processes related to their implementation, hosting and maintenance.

Evgeniy Aleksandrenko, Digital Transformation Officer at JEVERA Software, once said,

"Cloud products are the engine of digital transformation for small and mid-sized businesses. They help companies create a competitive advantage and evolve using reasonable resources. This competition lets consumers receive better services and companies - achieve sky-high results and growth they strive for."



It is what managed service providers are about. They can provide narrow functionality or an all-in-one approach, they can be used by various companies from different industries. But MSPs have several common features:

- They launch cloud-based software.
- They take care of its deployment, updating, hosting, and maintenance.

You may also like: [Still on Desktop Software? It's Time To Change The Preference In Favor Of Cloud Apps!](#)

Core pros of cooperation with managed service providers

To be honest, the any-scaled company uses at least one product delivered by managed service providers. But here, we're focused on small and medium businesses. Why? The case is for them, MSP's activities mean much more than for enterprises. They help companies use business opportunities that were not available before. Among core values managed service providers bring to SMEs are:

Optimization of resources

When using MSP's services, small and medium enterprises don't need to design something from scratch. They have two options on how to get proven software:

- apply ready-to-use tool by managed service providers
- use a product helping create custom software with fully customizable templates

This way, companies can save the time and investment needed to start software development projects. Usually, this business segment hasn't any specific needs to cover, so the general approach of managed service providers will absolutely suit them.

You may also like: [Traditional POS vs. Cloud-Based Point of Sale: Let's Make a Comparison](#)

Lower Total Cost of Ownership (TCO)

Since managed service providers take care of effortless deployment, fail-safe hosting, and usually 24/7 maintenance, companies can use it to cut operating costs and reinvest them for strategic goals achievement. Moreover, businesses don't need any additional hardware or software to implement the MSP's offering, which means that the total cost of ownership is limited by the subscription fee.

Faster Time-to-Market (TTM)

Managed service providers give clients an opportunity to use various tools and features to set up well-designed business processes and roll out new software times faster. For example, in the case of drag-and-drop design service application, companies don't even need to think about a coding approach - they can create a "picture" by moving template components. Consequently, the simplified procedures can cut time-to-market dramatically.

Focus on first-priority business goals

The absence of the need to create software regularly helps business leaders to remain flexible and focus on goals that can provide vast scaling opportunities. Here, MSPs let small and mid-sized companies optimize their processes, resources, and workflow to grow with lightning speed.

You may also like: [Commonly Used SaaS Solutions In Retail](#)

Core pros of being a managed service provider

Currently, [Statista](#) highlights Microsoft, Salesforce, Oracle, SAP, and Google as the most prominent companies in the SaaS market or managed service providers. But it doesn't mean that you can't be among companies offering services that MSPs usually offer. It's a huge advantage for tech startups or mid-sized companies looking for a way to transform their business models. By launching its product and becoming a managed service provider, your company can:

- expand new revenue streams

- engage new audiences
- turn competitors into partners or product users

Afterword

Managed service providers give SMEs precisely what they require: market-proven software for a reasonable subscription fee. MSP services are everywhere now. Even an ordinary marketplace is a software infrastructure that looks like a virtual mall where each retailer has a rented trading hall. The same applies to the entire managed service providers' offering, where all products are cloud-based, and vendors are obligated to cover hosting & maintenance.

Each small or mid-sized business can be an MSP, an MSP's user, or both. In the first case, the company can benefit from lower TCO, faster TTM, optimized resources, and business processes. Being a managed service provider, the company can expand its audience, drive revenue and receive a competitive advantage. But when the business uses both options - it's a win-win from each side.

Looking for a way to become a managed service provider and grow your business? Let us know! Our experts will advise you on where to start your transformation journey.

SD-WAN as a Service: Notes for Enterprises

How do you imagine connectivity across the enterprise? Probably, it should be supported by various robust software solutions covering security, data transfer, access control, and other matters. But the desire to simplify the processes made prominent telecom vendors like Apcela and Aryaka launch an all-in-one cloud-based product for these purposes.

SD-WAN as a Service solutions are capable of ensuring uninterrupted connections inside enterprises. Their

apparent benefits, like app usage optimization, data protection, and efficient traffic management, made them one of the most demanded technologies of recent years. Following [Gartner](#), by 2024, to enhance agility and support for cloud apps, 60% of enterprises will implement SD-WAN compared with about 30% in 2020.

Here, you will explore the SD-WAN as a Service from the business perspective, diving into its evolution, features, and pros helping enterprises operate smoothly under any conditions.

You may also like: [What Business Leaders Should Know About Private 5G Networks](#)



JEVERA Software · SD-WAN as a Service: Guide for Business Leaders

What are SD-WAN and SD-WAN as a Service in Plain Language

For most business leaders, SD-WAN as a Service is another buzzword that doesn't speak to them. Meanwhile, this technology is vital for enterprises striving to align connectivity across branches in different countries.

SD-WAN, or a software-defined wide area network, is a solution capable of using various links starting from multiprotocol label switching and ending with virtual private networks to track and manage enterprise networks regardless of distances. Its core task is to track and measure the performance of WAN connections and data transfer processes to provide high-speed and optimized routes.

Consequently, SD-WAN as a Service is a new cloud-based generation of a legacy SD-WAN. The great [business migration to the cloud](#) led to the demand to use cloud computing methods, like [SaaS](#) or IaaS, to manage data traffic properly. So, the service has main features and benefits that are usual for other cloud solutions, such as:

- the "rent" method of usage
- vendor-side hosting & maintenance
- reduced total cost of ownership (TCO)

- lightning-fast deployment
- no supplement equipment required

Exactly SD-WAN as a Service helped enterprises remain flexible during the pandemic when remote cooperation was necessary. Now, remote and hybrid work is here to stay. Following the UK Office of National Statistics, the proportion of hybrid workers has risen from 13% in early February 2022 to 24% in May 2022. So, in such conditions, the technology allows managers to support a high level of employee engagement, providing specialists with the ability to choose a convenient work mode.

Therefore, you can find enterprises from different domains among its core users. The only thing unifying them is affiliates in various locations and the desire to remain on the same page with each team member.

Legacy SD-WAN vs SD-WAN as a Service: Core Distinctions

	Legacy SD-WAN	SD-WAN as a Service
Garanting SLA for apps	challenging	troubleless
Scalability	limited	unlimited
Manual configuration	yes	no
Monitoring & management	on the user's side	on the vendor's side
Supplement software necessity	yes	no
Pricing	1+ year service contract	subscription base
Core providers	Verizon, AT&T, Comcast	Apcela, Aryaka

SD-WAN as a Service: Top 4 Benefits for Enterprises

Security

SD-WAN as a Service ensures high network and Internet connection security. Despite the myth that the technology is not secure enough, vendors build a robust stack to prevent data leaks and safe connectivity between enterprise branches. There's no third-party solution covering security matters needed. It makes the SD-WAN as a Service another convenient way to comply with data protection acts and strict governmental requirements in this field.

Efficient data traffic management

The core pro of SD-WAN as a Service is its ability to manage data traffic in real-time. It performs centralized control over the entire WAN network. Empowered with the service, enterprises can choose broadband links depending on the app's importance: more expensive for vital applications and cheaper for less important ones. This approach allows businesses to save costs and optimize data processing to make companies mature and build well-designed processes.

Connectivity

The technology builds efficient, real-time connections without delays and data loss by supporting multiple connection types. It helps enterprises to remain flexible regarding cooperation with employees. No matter where specialists work, they receive a secure and proper in-house connection. Consequently, SD-WAN as a Service provides uninterrupted business operations 24/7.

You may also like: [How to Save a Connection in Force-Majeure Conditions: Action Plan from Ukrainian Biggest Telecom](#)

High app performance

Did you know enterprises use about 200 apps daily to achieve strategic results? But some of them are most demanded, others - less. Usually, excessive budget usage concerns the irrational use of application subscriptions. SD-WAN as a Service can cope with it. It manages cloud and desktop app usage in real-time to optimize costs and provide companies with valuable data on employee preferences.

SD-WAN as a Service Benefits:



Security



Connectivity



Efficient data traffic management



High app performance

Summary

SD-WAN as a Service is a best-of-breed technology allowing enterprises to be on the same page with each branch and employee regardless of the location. For now, most managers do not fully understand the role and importance of this solution for building a highly-scalable and flexible business. Meanwhile, its functionality will only evolve. Among core pros making this service valuable for enterprises are its ability to:

- reduce TCO

- improve data transfer routes
- ensure proper, centralized data traffic management
- provide secure connections
- manage apps usage efficiently

If you're looking for a way to build well-designed processes and ensure business maturity - let us know. Our specialists will advise you on where to start your transformation journey.



What Companies and State Authorities Do With 5G: Top Use Cases

5G becomes closer to end users year by year. Companies spread business capabilities by buying airwaves on 5G spectrum auctions. Public authorities also master the technology since it can also empower states. So, when you're hesitating on implementing 5G, enterprises and public sector representatives are getting the most out of this technology. Here we want to highlight the top five 5G use cases that can encourage you to think about the 5G deployment strategy right now. Scroll down to learn more.



Privacy policy
JEVERA Software · Top 5G Use Cases For 2022: Public & Private Sectors

You may also like: [Benefits of 5G Technology: What the World Expects](#)

5 Impressive Ways of 5G Usage You Should Know About

State Authority

As 5G connection provides low latency and high reliability, reducing the time to send the signal and receive the response, it can be highly effective for government officials or policymakers. Thus, human services workers are often equipped with 5G-enabled devices like AR glasses or body cameras to observe the environment during field visits. It provides detailed information about the neighborhood, nearby schools and bus stations, and crime data to evaluate people's living arrangements.

Retail

One retail area that is positively affected by 5G usage is the in-store customer experience. Merchants can use advanced artificial intelligence and machine learning (ML) to personalize pricing and promotions in-store. Also, touchless and contactless check-outs are possible, using IoT and AR for product or brand data. Meanwhile, [Amazon](#) created top-fast delivery from their stores using drones and self-driving cars powered by 5G-based software.

You may also like: [Did 2022 Change a Paradigm of 5G usage? How Retailers Apply the Technology for Business Development](#)

Telecom

Verizon applies 5G to deliver compelling services inside NFL stadiums during sports games. The CSP's customers can view live action or instant camera replays from different angles through the company's multi-view option. They are able to look at the score before a referee announces it, review the players' statistics, animated celebrations and live win probabilities. Moreover, the 5G network allows viewers to merge their images with live footage in the stadium, creating the emotions of a lifetime.

You may also like: [What Business Leaders Should Know About Private 5G Networks](#)

Healthcare

5G mobile connection enables patients to be treated remotely via doctor consultation. The health industry can offer remote diagnosis and AI-powered operations, e-health and responsive wearables, and robotics assistants to start helping people with disabilities. Thus, Apple Watch is one example of a 5G healthcare device that collects and analyzes information about the user's health features. It allows avoiding serious complications from diseases as the device signals any suspicious change in a human body.

Farming

Traditional industries such as farming use 5G sensors to collect real-time information about fertilization, livestock, and other animal needs, helping to save resources. MooCall developed a 5G-powered sensor that attaches to the cows' tail and alerts farmers when a cow is about to give birth or needs urgent help. Such devices give the farmers more control while improving the farming sector's overall productivity and financial performance.

Ways of 5G Usage



State Authority



Retail



Telecom



Healthcare



Farming

Wrap Up

Considering the widespread start of remote work, possibilities offered by cloud-based applications, and the demand for high-quality, independent connectivity, 5G networks are expected to be the most adopted technology both in

private and public sectors in the coming decade.

Such networks offer state authorities and companies in retail, telecom, healthcare and farming easy access to the data for users and technological advancements. Among other benefits are a lightning-speed data transfer and the constantly increasing number of devices connected to the network.

5G already helps enterprises and the public sector implement their strategic goals quicker and manage digital transformation. It means that we should get ready for even more impressive use cases from different domains soon!

If you're looking for a way to create a mature software ecosystem before 5G implementation - let us know. Our experts will advise you on where to start your digital transformation journey.



All You Should Know About IT Governance in Telecom

What do you know about IT Governance? Not much? About a month ago, it was another buzzword that didn't speak to me. As it turned out, this framework is one more way to achieve mutual understanding between techies and business stakeholders. Remember the perennial discussion "Who should be the main decision maker" where business leaders and tech people hog the covers. Of course, tech achievements are powerless without the business purpose they support. So, the IT governance institute was created to ensure that specific business goal backs up each tech initiative.

Scroll down to discover more about IT Governance as a critical approach to ensuring better business outcomes. Learn more about telco companies applying it as a basis for their innovations and digital transformation.



[Privacy policy](#)

JEVERA Software · IT Governance In The Telecom Industry

You may also like: [What Business Leaders Should Know About Private 5G Networks](#)

What's IT Governance: General Overview

"We define IT governance as the framework for the leadership, organizational structures and business processes, standards and compliance to these standards, which ensures that the organization's information system support and enables the achievement of its strategies and objectives."

Alan Calder, [IT Governance Pocket Guide](#)

IT Governance is a 20-year approach to helping companies deliver better tech results. However, even now, it's hard to understand its core tasks and meaning for businesses, particularly for communication service providers.

So, IT Governance is a middle-level management layer unifying corporate Governance and IT segment management. It's the system of relations, politics, and processes created to optimize IT activity and make it work in favor of business.

Somebody includes it in the corporate governance system, and this approach is also correct since IT should usually meet business needs and requirements to remain efficient and performant.

The core task of IT governance is to gather all tech and business side stakeholders under one roof to make them move in one direction. Among others, this framework helps:

- track investment in the IT area to make sure it's reasonable and enough to achieve business-oriented goals
- ensure cybersecurity and data protection
- minimize risks related to software development
- build processes allowing to reach better IT department performance
- show measurable results and increase ROI

IT Governance is a sort of intermediary between tech and non-tech team members helping business leaders eliminate the mess in processes and remain on the same page with the IT department.

IT Governance is the system of relations, politics, and processes created to optimize IT activity and make it work in favor of business.

So, you might reasonably ask how companies implement and comply with it and where its principles are defined. The case is IT governance approach is supported by several acts, frameworks, and regulations helping businesses to coordinate actions and track their performance in this field. Among them are:

- The International IT governance standard - ISO 38500
- The Information Technology Infrastructure Library (ITIL) framework
- Control Objectives for Information and Related Technology (COBIT) framework
- Calder-Moir IT Governance Framework
- The Clinger-Cohen Act of 1996
- Sarbanes–Oxley Act of 2002 (SOX)

IT Governance is a compulsory requirement for most companies to control IT processes and results of activities. It allows business leaders and state authorities to be aware of the nature of software development and achievements in each business field.

You may also like: [How to Save a Connection in Force-Majeure Conditions: Action Plan from Ukrainian Biggest Telecom](#)

How Telco Companies Comply with IT Governance Standards

Now, each business is a digital service provider first. Just remember companies like 7-Eleven, Starbucks, or Bosch. It's hard to name them only a convenience store chain, a cafe, or a manufacturer. Due to the IT-driven approach, they managed to transform business models and provide customers with even more value. This peculiarity supports the leadership and popularity of these brands.

But what about telecom companies? This segment is highly competitive. It requires its players to launch additional services and provide more value regularly to stay afloat. So naturally, communication service providers mastered the

IT governance principles a long time ago to regulate IT sector activity as a primary engine of their development.

Try to find any report by a telco company showing its attitude towards this question, and you won't. Usually, enterprises share information about corporate Governance. Meanwhile, IT governance principles are left behind the scene since they support a competitive advantage. However, each large telecom company strictly complies with IT governance standards and has special departments driving this activity.

In the IT governance area, telecom companies are performing several core tasks:

- IT budget management (Vodafone)
- Processes definition and management (Vodafone)
- Improvement and coordination of IT processes by SOX and ITIL (Lifecell)
- Processes performance management (Lifecell)
- Management of service requests that require global clearances (Verizon)
- Cooperation with IT, business sponsors, legal and IT security departments (Verizon)

You may also like: [Short Guideline On How To Budget A Project](#)

In the telecom industry, business attention is focused precisely on IT budget management and setting up new processes. For example, in 2022, Vodafone spent \$46,402 mln. A significant part of these resources covered IT expenses because the company launches new tech-oriented services regularly. To prevent over budget and achieve reasonable investment, the business control this area using IT governance principles.

One more priority for telecom companies is also data protection. They process terabytes of sensitive customer data. Any leak creates a significant risk of penalties and loss of brand reputation. Of course, communication service providers have separate departments controlling this issue. Still, they must also comply with IT governance principles since data protection is another area of its regulation.

The Bottom Line

IT Governance is an essential part of innovative and responsible business activity, just like corporate Governance. Most companies are obligated to follow its standards to control IT processes and the nature of software development. Telecom companies are trying not to spread the information regarding IT Governance since it can be a sort of confidential information disclosure. However, large players like AT&T, Verizon, Vodafone, and Lifecell pay attention to this regulation since it allows them to remain on the same page and run IT development strategies consecutively anywhere in the world.

Looking for more information about IT Governance and its impact on digital transformation processes - [let us know](#). Our experts will share their knowledge and experience to help you achieve better business results faster.



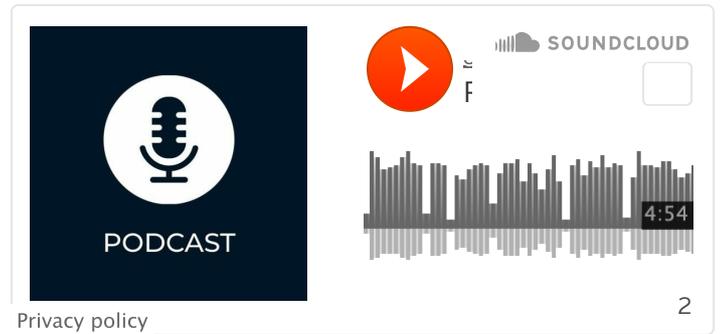
Lesia Kasian · Aug 26 · 3 min read

What Business Leaders Should Know About Private 5G Networks

Updated: Sep 29

The implementation of private [5G networks](#) is gaining popularity in the business world as governments give more freedom to the companies to set up and maintain their traffic. Despite some challenges of private network installation, according to [Deloitte Insights](#), their percentage rose from 25% in November 2021 to 33% of total networks in January 2022.

Here you'll discover why the new generation of private networks is often a must-have for enterprises in different domains. Why do business leaders think about its implementation? What results should they expect? Scroll down to find out more.



JEVERA Software · Private 5G Networks From The Business Point Of View

You may also like: [Let's talk about telco: connection restoration, MVNO, and more](#)

What a Private 5G Network Is

5G private network is a new generation non-public network built based on 5G powers and mobile connection technology. It has minor distinctions from previous generations since their working principles are literally the same. However, its core power is hidden behind the lower latency, real-time data transfer, and excellent business perspectives.

Private 5G networks help enterprises in healthcare, manufacturing, logistics and other domains get the most out of high bandwidth and uninterrupted wireless connection. It means surgeries over the air, smooth and intelligent device management, optimized supply chain routes, etc. Therefore, this technology remains on edge, and companies build bold implementation strategies to achieve better business results.

"The private 5G network gives us increased real-time visibility to track our products and share data with our customers."

Harm van Weezel,
CIO at Associated British Ports

In turn, IT market players offer dozens of products allowing enterprises to set up a 5G private network without risks in a tight schedule. For example, [Ericsson launched its Private 5G](#), ensuring a high-speed 5G connection to improve the company's digital presence. It can also provide business users with an independent management portal and troubleshooting software to cover enterprise requirements. One more product in the market, [AWS Private 5G](#), can manage a company's 5G connectivity from ordering and activating the network to scaling its capacity to match business needs.



Harm van Weezel,
CIO at Associated
British Ports

You may also like: [Benefits of 5G Technology: What the World Expects](#)

Business Benefits You Can Use Having a Private 5G Network

Quick set up process & fewer operating costs

Enterprises have various ways to implement a private 5G network, but the most efficient and popular one is to use it on a subscription basis. This way, companies don't need to take care of supplement hardware, waste time on a time-consuming development cycle, and spend effort on attentive maintenance. Consequently, by using a private 5G network, business leaders can kill two (or even more) birds with one stone: use the technology supporting the overall [digital transformation](#) and optimize expenses.

"The key point is that by using the 5G technology for their private networks, businesses can achieve the same or almost the same speed of data transmission as the traditional network based on cabling. And there is no need to construct your own base stations.

A 5G network can be "rented" from a mobile operator for OPEX costs only and be ready to use and configured swiftly."



Lesya Kasyan,
Delivery Head at
JEVERA Software

[Lesya Kasyan](#),
Delivery Head at JEVERA Software

Wider business opportunities

A Private 5G network is one more technology that can support a desire to roll out new services faster owing to joint, optimized resources and unlimited capabilities. This way, companies can put industry conditions, networking, and integration into one box to achieve results.

"Private 5G is enabling new types of service providers that can offer more domain-specific expertise compared to a traditional telco."

Jason Shepherd,
VP of Ecosystem at Zededa

Jason Shepherd,
VP of Ecosystem at
Zededa



You may also like: [Did 2022 Change a Paradigm of 5G usage? How Retailers Apply the Technology for Business Development](#)

Wrap Up

Considering the widespread start of remote work, possibilities offered by cloud-based applications, and the demand for high-quality, independent connectivity, private 5G networks are expected to be the most adopted technology in the coming decade. They offer companies in various industries:

- real-time data transfer
- lower operational & maintenance costs
- quick Time-to-Market
- vast opportunities for business development

This way, private 5G networks can help companies launch new services on a tight schedule, achieve strategic goals quicker, manage digital transformation and improve business processes.



Top Examples of Digital Twins that Can Impress Telecom Providers

“A digital twin needs a good information model of what’s going on the ground. It needs an understanding of what’s going on behaviorally because essentially it’s a form of simulation.”



Tony Clark
the deputy dean in the College of Engineering and
Applied Science at the U.K.’s Aston University

If IoT and data science have a baby, it would be a digital twin. This technology is on the cutting edge today. Just look at this sky-high market share rise from \$7.86 billion in 2021 to \$10.99 billion in 2022! So, admit that you heard at least at once about its capabilities in supply chain management, manufacturing, healthcare, or construction. But now, let’s focus on the industry, working wonders, and making the existence of digital twins possible.

Telco companies fight with fierce competition daily. This rush makes them launch new services, try fresh approaches and develop to remain on the top. How do digital twins help their growth? Do telco enterprises already use the technology or only discuss its implementation? Scroll down to find answers and discover more about the top examples of digital twins in telecom.

Digital Twin in Telecom: Tasks & Meaning

Telco companies allow other businesses to use accurate predictive analytics and proper management approaches via digital twin technology applications. Meanwhile, telecom players also get the most of this widespread practice. Why not? The technology can track and run telecom networks, simultaneously gathering data from other sources. Businesses there usually add layers of technology, including connected devices and additional spectrum bands. Digital twins can monitor and augment these complex systems in real-time.

Meanwhile, telecom business leaders use the technology everywhere, boosting coverage, analytics capabilities, IoT & 5G deployment. The case is digital twins can reduce the risks of failure and validate ideas from the very beginning. Management can test any initiative by using a virtual model of a real department, process, or group of processes to choose the most appropriate scenario and implement it easily.

You may also like: [Digital Twins: Engines Of Business Transformation](#)

Digital Twin: Top Innovations You Should Know About

Digital twin for the industrial automation

Telco companies are the central link providing all business sectors the power to move forward and perform a digital transformation. For example, they help manufacturers to build a “smart factory” concept and optimize all operational and business processes. A bright example of telco & manufacturing cooperation could be Nokia and Bosch partnership.

The companies decided to research the usage of 5G for industrial automation and control systems. Their intelligent sensors for each part of the manufacturing process transferred data to a controller. Owing to 5G, such data is transmitted to the control platform displaying accurate digital twins of machines. It allowed employees to receive all the information about equipment performance and set up new operation scenarios in real-time.

The core aim of these digital twins was to ensure workers with complete information in hand. Such an approach ensures better employee performance, reduces downtime risks, and eliminates routine tasks.

Network Digital Twin

The most incredible digital twin innovation in telecom is a virtual copy of the network. It allows telco companies to monitor network operations in real-time and predict any events that might happen to exclude downtime. Enterprises create several digital twins to manage networks properly. This way, each copy has a limited burden and enables operating with real parts of a network efficiently.

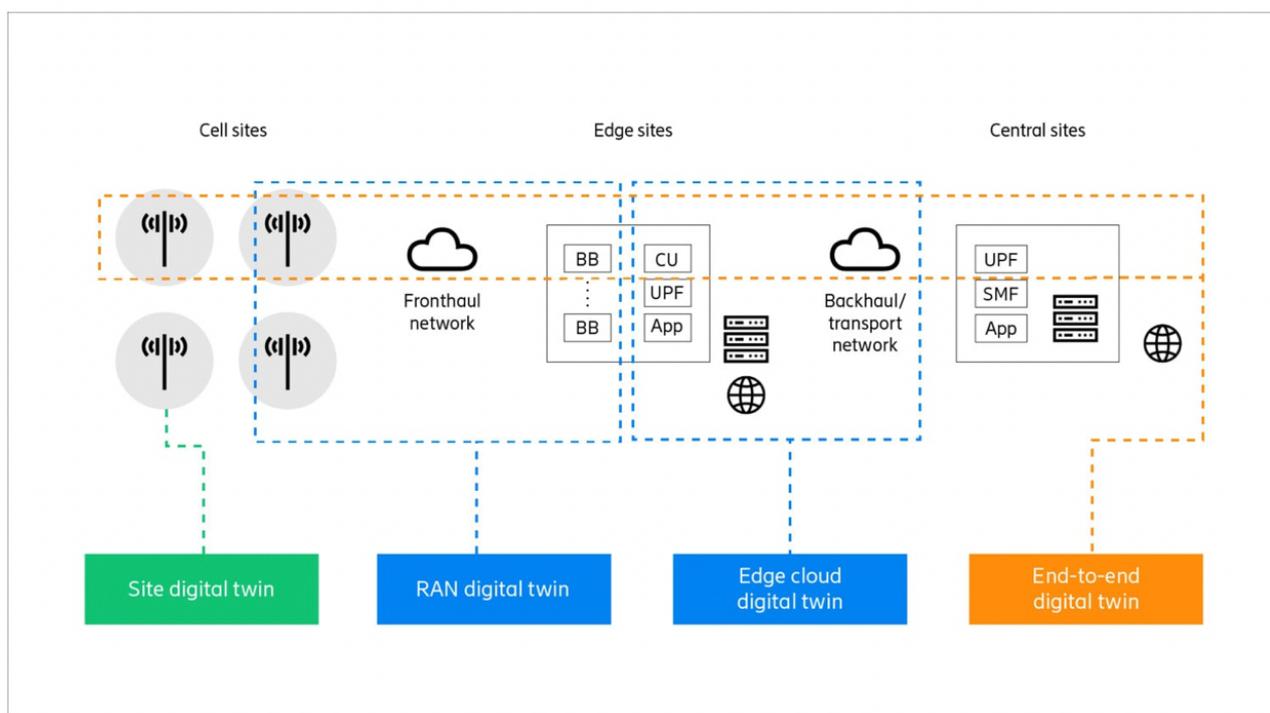


Figure 2: Areas of interest for digital twins in mobile networks.

Source: [Ericsson](#)

Many vendors offer ready-made digital twins turning competitors into partners and helping other industries digitize processes. For example, Nokia created a full-fledged Network Digital Twin allowing factories to get the most out of private wireless networks in their Industry 4.0 journey.

Meanwhile, some companies are working on digital twins covering the components of a network. For example, [Intelligent Site Engineering by Ericsson](#) uses pictures to create 3D models of radio sites. Their setting up, maintenance, and improvement can be made over the air. Recent Ericsson's update Advanced Microwave Insights analyzes information from microwave networks in real-time, cutting costs and improving performance.

You may also like: [Let's talk about telco: connection restoration, MVNO, and more](#)

The Bottom Line

The digital twin plays two critical roles in developing the telco industry. The first example shows the importance of this domain in other fields' growth. Nowadays, any company striving to implement digital twins needs support from the telco player's side. This way, the services of niche enterprises will be relevant and demanded for a long time.

On the other hand, communication service providers apply digital twins to go beyond the competition and run their infrastructures in a new, reasonable way. This approach allows them to retain an audience, optimize business processes, launch new services faster and safer, and increase overall revenue.

If you need tech support in creating a full-fledged digital twin for your telecom company - [drop us a line](#). Our specialists will advise you on the fastest way to achieve desirable results.



Choose the Right BNPL Method: Split Payments vs. POS Lending

The “buy now pay later” (BNPL) service became one of the most popular among shoppers and retail business players because of its ability to keep a customer-centric approach. Following Research&Markets prediction, the global BNPL market will grow up to a shocking \$656.34 billion by 2026. Why not? Merchants aim to achieve stable goods turnover, while buyers dream of purchasing everything they want no matter how much money they have in their wallets. The BNPL option seems a win-win for both parties.



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JEVERA Software · BNPL In Details Split Payments Or POS Lending

But if you want to implement “buy now pay later” in your business, get ready to make a choice. Companies usually apply split payments and POS lending. My goal today is to give in to these options, showing the core difference between them. Read on to discover more.

Split Payments in the Plain Language

What is a Split Payment?

Split Payment is a BNPL method where customers can split their credit/debit card payments into equal parts and pay for purchases regularly without interest.

How Does It Work?

This process involves three parties: a retailer, a buyer, and a bank. The retailer offers the buyer to use a split payment option dividing the total amount into 3 or 4 bytes. The first payment is withdrawn at the moment of purchase. Then, the buyer will pay for an item once per week, month, or quarter depending on the terms.

Meanwhile, the bank covers the total purchase amount and instantly provides the retailer with the money. The bank and the retailer work based on Claim Assignment Agreement. This way, the bank replaces the retailer by receiving the role of a leading “creditor”.

Split Payment looks like a loan, but it's not. It's just a payment product.

Who Does Use It?

Split payments are suitable for small-ticket items. Millennials and Gen Zers preferably use them because of their endless desire to consume more, the comparatively small amount, short-term payment burden, and the absence of interest.

You may also like: [Make All Items "Suitable" or How to Prevent Product Return](#)

POS Lending: General View

What is POS landing?

POS lending is an option providing buyers with the ability to pay for a purchased item within a long term with slight interest. It's provided directly via [POS software](#) inside a brick-and-mortar store.

How Does It work?

You probably saw a loan point walking on the car distributor branch. A smiley agent is ready to provide you with a loan here and now. So it's just enough to sign documents, and the car is yours. No banks. Everything occurs on-site.

Most likely, you will not pay interest taking a short-term loan, but in case of long-time relations, get ready to spend some more money.

This option is more suitable for bigger-ticket items. The payment withdraws once per 6 or 12 months.

Who Does Use It?

POS lending is commonly used by 25+-year-old people wishing to purchase more expensive things, like the above car or a house. They are ready for reasonable interest and sacrifice it to manage financial resources properly.

You may also like: [Cashierless Stores Refuse POS Software: Truth or Trick](#)

The distinction between Split Payments and POS Lending

The main question here is "A loan or not a loan?" Because a core difference between split payments and POS lending is that split payment is not a loan; meanwhile, POS lending is.

In case of split payment option usage:

- No underwriting is needed because the payments are drawn from the existing credit line
- Know Your Customer procedure isn't required since a card issuer has already performed it
- Banks receive a payment guarantee because of withdrawing 25% from the total amount instantly after the purchase

For retailers, there's no difference in what BNPL method to use because they are safe in both cases (the total amount of purchase is covered instantly). However, they should consider customer preferences and audience segmentation.

	Split Payment	POS Lending
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Place	Online/offline	Only Offline
Interest	No	Yes
Purchase	Small	Large
Loan	No	Yes
Credit/debit card required	Yes	No
Payment frequency	week, month, quarter	6 months, 12 months
Mostly used by	18-24-year old people	25+-year old people
Provided by	grocery, clothing stores, etc.	car dealers, electronics stores, etc.

Wrap Up

So, what “buy now pay later” method to choose from, split payments or POS lending. To be honest, there’s no correct answer since it depends on your business. It doesn’t make sense to provide POS lending for bread and milk if you are a grocery retailer. If you’re oriented towards a young audience, remember that it isn’t used to pay loans or feel a huge financial burden. The same concerns split payments for older people wishing to buy a car. It’s more convenient for them to pay for it within a year, not during one quarter.

Therefore, to make up your mind, you should learn your business conditions and your audience’s preferences. And sure, discover as much as possible about these methods to choose the most appropriate one for your company.

If you need to set up a BNPL feature but don’t know for sure what software will ensure smooth work - let us know. Our team will give you a deep understanding of the processes and products you might need.



What's Next? Peculiarities of eCommerce Business in 2023

The pandemic restrictions made online shopping the first and only way to satisfy consumer demand. Now, the mess is in the past, and dozens of countries open their borders again, allow people to walk without masks, and cancel COVID-19 safety measures. But something has not changed. eCommerce is and will be the primary way to get desired. Following [the Shopify report](#), in 2022, eCommerce sales worldwide are USD 5.4 billion. In the following year, they will grow up to USD 5.9 billion.

So, what retailers should expect from 2023 to continue their commercial race? Read on to discover core trends and forecasts for the following year.



What eCommerce Players Should Expect: Top 7 Trends & Forecasts

Mobile commerce will be on edge

Mobile commerce will blossom because of its convenient approach and lightning-fast shopping experience. In 2022, eCommerce retailers are trying to set up new stores and boost existing ones with pre-integrated tools for rapid application development. They pay more attention to business development following the Composable Commerce rules decoupling frontend functionality from the backend. The market is full of software solutions that can support the Composable Commerce way: Shopify, Magento, BigCommerce, and others from the backend side and Shogun, Spartacus, etc., from the frontend one.

In 2023, Progressive Web App (PWA) technology will continue to conquer the eCommerce market because of its multiplatform and native nature. Retailers strive to cut costs by receiving more benefits from software usage, and PWA seems to be one of the ways to kill two birds with one stone.

The technology race will continue

In highly-competitive conditions, retailers do all their best to provide vast services smoothly and ensure added value. Customers try new ways of shopping, including the voice one, live streaming eCommerce, AR/VR, etc. In turn, companies have to ensure uninterrupted connection, high speed & latency, and real-time data transfer. They will continue to apply 5G for this purpose, making the technology widespread and available for regular customers. On the other hand, [retailers will use 5G to transform business models](#), build well-designed processes, and run enterprises worldwide.

You may also like: [Did 2022 Change a Paradigm of 5G usage? How Retailers Apply the Technology for Business Development](#)

The same applies to IoT technology connecting 14.4 billion devices in 2022. The technology helps businesses set up processes (inventory management, logistics, etc.) inside and create seamless communication with customers.

Last but not least, the technology that will be used in 2023 is AR/VR. We'll see much more collaborations of famous eCommerce brands with social media platforms offering to fit or try something with AR/VR. Get ready to use more apps based on this technology. The case is it allows people to eliminate the leading blocker of eCommerce - to see something with their own eyes and try it as they usually do in brick and mortar stores.

Implementation of innovations will lead to the entire digital transformation of the IT ecosystem or partial modernization of its components to create a favorable environment for proper technology performance.

Omnichannel will still be popular

A buzz around the omnichannel approach will not leave us in 2023. Following McKinsey, it will be with us at least by 2030. The case is, for now, far not all companies tailored their stores to each customer's needs. They are on the way. So, 2023 in this field will be the year of total recovery from external challenges and full focus on buyers. Companies will try to collect more personal data and process it to get more value. We should be ready to provide more customer-centric services, offers, and marketing campaigns to retain online buyers. The previous experience prepared retailers to force-majeure in this field, and there's no room for mistake.

You may also like: [What Is RTCM And Why It Is Important?](#)

Wait for the advanced approach to communications

eCommerce businesses discovered that the human touch is vital when interacting with customers. Therefore, they will tailor their contact centers to this conclusion. Retailers will apply Interactive Voice Response and bots to reduce the burden. But the main asset will still be agents.

Moreover, we should prepare for the global shift to social media and messengers. These channels are the most demanded among online buyers, so companies should provide proper customer support there.

You may also like: [The Proven Way to Create a Robust Contact Center](#)

Voice Shopping?

This new approach to daily shopping became mainstream. Following Statista, the total value of voice-activated shopping is expected to grow from around USD 5 billion in 2021 to a shocking USD 19.4 billion in 2023. People prefer this approach because of the fast performance of routine tasks.

Amazon has already launched its [Alexa Voice Shopping](#) to make purchasing easier. It allows buyers to add and remove items from their shopping list using voice commands. The software processes orders and sends them to the nearest store. It's enough to pick it up or use the delivery service.

The same services were released by Alibaba, Walmart, and other large retailers.

In 2023 this trend will become even stronger. Therefore, eCommerce businesses should create robust and highly-scalable cloud services to ensure the accessibility of this option and satisfy customers.

Supply chain issues are still here

Regarding the supply chain, the eCommerce world is still on the way to full recovery after the pandemic. But the avalanche of new challenges caused by the Russian-Ukrainian war doesn't provide retailers room for the rest. They should be ready to create robust and flexible partnerships with reliable suppliers, transform their supply chain processes and implement new ideas without risks.

Companies will apply the digital twin technology and different platforms for fast contractor selection. The JEVERA team is currently working on one of such solutions receiving a grant from the United Nations. We're building a versatile platform helping to gather businesses, volunteers, investors, and state authorities under one roof to create a well-designed ecosystem for their smooth interaction. This approach will also suit eCommerce companies depending on the supply chain. It will allow retailers to find contractors times faster and ensure uninterrupted delivery under any conditions.

You may also like: [By People For People or How the JEVERA Team Is Working on the United Nations Granted Project](#)

More attention to data protection

Data protection requirements will become tougher every year in all countries worldwide. 2023 will be no exception. According to Shopify's [The Future of Commerce Trend Report 2022](#), China's Personal Information Protection Law³⁷ came into effect. Brazil began issuing penalties to violators of the country's General Data Protection Law³⁸. So, now it's not only about CCPA and GDPR.

The widespread usage of IoT capabilities and the collection of terabytes of data make its protection complicated. Therefore, in 2023 retailers will try to solve this issue by combining technologies with compliance with data protection acts. They will create detailed data protection policies, distribute duties properly and use received sensitive information more carefully. Nobody knows what country will be the next one to implement its data protection act.

You may also like: [What The CCPA Is: General View](#)

The Bottom Line

The eCommerce market remains a dynamic environment for business players. Therefore nobody knows for sure how 2023 will affect it. Meanwhile, based on accurate data and current conditions, we can conclude that among the core trends for 2023 will be the following:

- mobile commerce

- implementation of innovations
- omnichannel approach
- advanced communication
- voice shopping
- withstanding supply chain issues
- emphasis on data protection



Mobile commerce



Implementation of innovations



Omnichannel approach



Advanced communication



Voice shopping



Withstanding supply chain issues



Emphasis on data protection

If you want to tailor your eCommerce software to new conditions, let us know. Our team will share its expertise and knowledge to empower your business.



How to Save a Connection in Force-Majeure Conditions: Action Plan from Ukrainian Biggest Telecom

Updated: Jul 11

“Telecom connection is vital now. People need to keep in touch with each other. They should have an opportunity to call parents, family, or friends to say everything is fine or ask for help. They need to receive in time messages from state authorities. It can save lives. Moreover, businesses were also damaged because of a downtime. So, we feel responsible here and try our best to restore the connection on deoccupied territories in a tight schedule.”

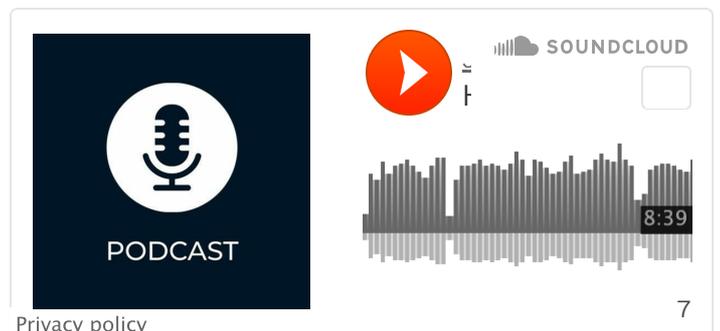


*Konstantin Sotnikov,
Regional Operations Division Manager at lifecell*

My fruitful conversation with Konstantin Sotnikov, Regional Operations Division Manager at lifecell, began with his words about responsibility, the importance of connection, and its ability to save people. It’s crucial for Ukrainians now since the first thing we all do in the morning is call or write messages to our loved ones to discover how they are and what the night was.

For some people, coverage is the way to say at least a few words from the occupied territories and calm down families.

Before the war, telecom was the central point for businesses, public authorities, and society. It supports modern technologies, helps implement new services, use advanced features and live a full-fledged everyday life. Looks exciting, but now, it’s much more important for everybody involved.



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JEVERA Software · How Ukrainian CSPs Help People Keep In Touch Dur...

This article will show how Ukrainian biggest telecom companies are managing to withstand Russian aggression on their front. Scroll down to enjoy the insightful stories by Konstantin Sotnikov, Regional Operations Division Manager at lifecell.

How Telecom Companies Restore Connection Under Mines: Interview with Konstantin Sotnikov, Regional Operations Division Manager at lifecell

M.S. What challenges related to war lifecell faces? How does the company overcome them?

K.S. The most significant difficulty ever was to accept the situation. All of us were shocked by the scale of the invasion. Fortunately, we had a relocation plan for employees to Western regions. It was a bit easier to prepare and adapt to new conditions because of the pandemic. That crisis pushed us to switch to work from home. lifecell designed all the processes in a way to let experts and engineers work from any location. Meanwhile, we couldn't operate without on-site employees, so some talents had to stay.

From the tech view, the experience gained in 2014 was also helpful. We're managed to set up additional channels in Eastern regions to give us some time in case of main channels failure. We began to transfer the active equipment of the core network in December 2021 to reduce risks.

When the shock passed, and the adaptation began, we offered all the largest Ukrainian telco operators, Vodafone and Kyivstar, to open a national roaming. Everyone understands that the network is not smooth. Instead, national roaming provided the ability to make calls and even use data transmission. Therefore, the main thing was to adapt. Social responsibility and employee & contractor safety were our priorities. We took risks and tried to restore the network where it was more or less safe. The company managed to purchase bulletproof vests and helmets for our talents and contractors working in dangerous areas.

M.S. It's quite a fascinating experience to join forces with core competitors. How do you feel about it?

K.S. As I said, it's more about social responsibility. Currently, there are no commercial relations. We understand that networking and communication are a necessity that people use every day.

In everyday life, we are competitors and use every opportunity to create a competitive advantage. But in the war conditions, all three operators and their business leaders decided that the commercial component was not in time because we needed to save the country.

Therefore, all operators joined forces and used the available resources. For example, one goes to restore the network, sees a problem with another operator on the way, and stops and repairs a competitor's network. We actively use constant data exchange and the infrastructure to support several operators simultaneously.

You may also like: [By People For People or How the JEVERA Team Is Working on the United Nations Granted Project](#)

M.S. How do you restore a connection? How long does it take?

K.S. We have 3 different cases. In the Kharkiv and Mykolaiv regions, we make repairs daily. Unfortunately, the network is constantly attacked. The Kherson region is wholly occupied, and our hub sites are disconnected. That is, we build new lines on deoccupied sites there. In the Kyiv, Zhytomyr, Chernihiv, and Sumy regions, there was a complete restoration of what was destroyed. To be honest, a significant part of our network was destroyed there. However, the network has been almost completely restored in these areas now.

Geography of connection restoring



Restoring communication in the deoccupied territories is also quite dangerous. We did this with the support of our military and regional administrations. Moreover, we have a commission that helped to unite us. Thanks to them, we started working step-by-step.

The first to-do thing is to analyze the situation and damages. We needed to understand the scope of the tasks. If the tower fell, then the recovery would be time-consuming. When the infrastructure was just damaged - we looked for those sites that survived and were located on the roofs of buildings or antennas at a significant height (40+ meters). Why? Because such sites provide coverage. The antennas bent to the ground provide limited coverage, but if you extend them, you can get pretty decent coverage of the area. For example, thanks to one site in Irpin, we managed to cover half of the city. When people started returning, we had coverage and restored sites that provided network capacity. The same applies to all deoccupied territories.

We apply mobile stations where it is impossible to restore the sites, and they will have to be rebuilt entirely.

To illustrate how we restore connection, I want to share one curious case. In the Kherson region, at the beginning of May, the connection of all operators disappeared. We thought it was an intentional disconnection. We have only one channel left and found out that the cable was damaged. It's a typical situation in the territory where active hostilities occur.

Most likely, an artillery shell flew there and broke the cable. Engineers managed to get there after 3 or 4 attempts under military cover and repair the line. Lots of government authorities were involved in this process. But, unfortunately, it worked for about a month. At the beginning of June, it was finally disconnected in Kherson. Therefore, we need to get to our hub site in Kherson and connect the optical lines to the active equipment to restore the network there.

M.S. Did the war become a reason for implementation of innovation?

K.S. Yes, definitely. The core 3 innovations we used are:

- Starlink (kudos to the Ministry of Digital Transformation of Ukraine). We applied satellite communication as a transport for our remote sites
- new antennas that can cover pretty remote areas with a small capacity. We make calculations where it can be established
- and the above mobile stations. They help us restore connection faster without any superficial rebuilding

Wrap Up

You probably think restoring a connection in force-majeure conditions is far from everyday activity, and there's no reason to learn lessons. However, communication service providers face it frequently when fixing the results of natural disasters, working in severe weather conditions, or during wars. This experience will be helpful for you because of preparing for the most challenging situations and giving an action plan. What could be better for a telecom business than to minimize risks this way?

THANK YOU!

END.

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