



# Cybersecurity and national digital sovereignty

# Solar – National cybersecurity services provider

## [01] ARCHITECT OF COMPLEX CYBERSECURITY PROJECTS

Solar has vast experience in developing and implementing complex cybersecurity systems on a national level

## [02] PROVIDER OF CYBERSECURITY SERVICES

Being one of the top providers in the world Solar's cybersecurity service portfolio covers all existing areas

## [03] MANUFACTURER OF CYBERSECURITY PRODUCTS

Solar produces the widest variety of cybersecurity products and constantly develops new advanced technologies

**SOLAR** Protecting the most critical and attacked organizations, web-resources, processes and events in Russia

**№1**

On Russian cybersecurity services market

**Top-5**

Managed Security Service Provider (MSSP) in Europe

**2500+**

Cybersecurity experts

**1500+**

Organizations protected

**600+**

Projects completed per year

**200** bln

Events analyzed per year

**1,5** bln

Cyberattacks repelled per year

**100** mln

Users protected every day



# Solar – part of Rostelecom Group

13,4 mln

Users of high-speed Internet services

49 mln

Users of mobile network services

11,8 mln

Households with subscription TV services

125+ thous

Experts in the group of companies



Russia's national telecommunications operator and largest state provider of digital services

High-speed Internet

Mobile Network

Data Centers

OTT Media

Streaming Services

Cloud Services

E-Government

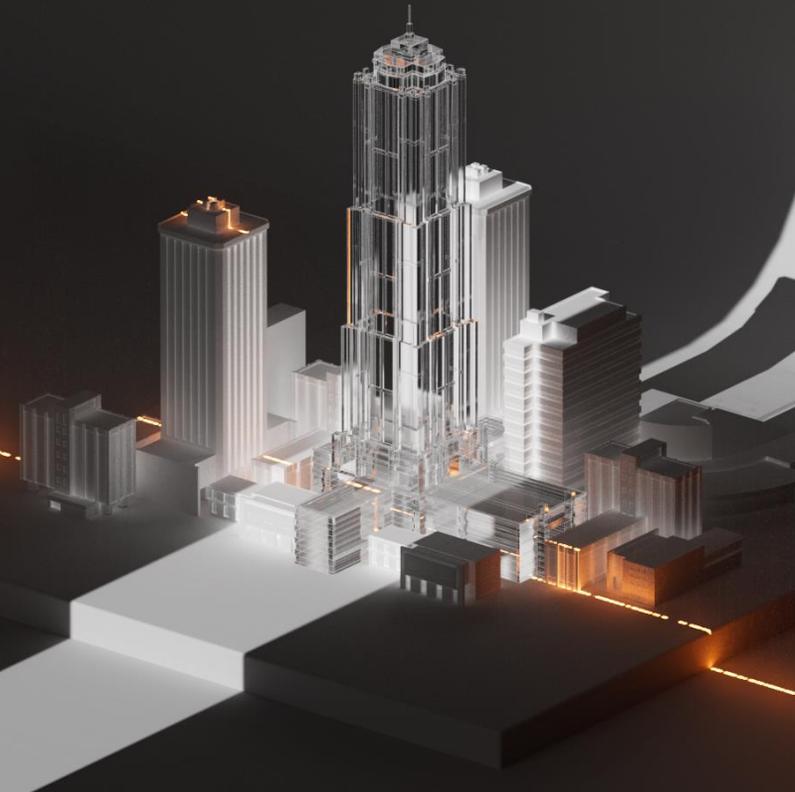
Cybersecurity



Develops and operates critical public information systems and a wide range of solutions for the digital services ecosystem

Key technological partner of the State in the most significant digitalization processes and National projects

- Digital Economy of the Russian Federation 2019-2024
- Data Economics and Digital Transformation of the State 2025-2030



# Main reasons for the increasing importance of National Cybersecurity

## TECHNOLOGICAL BREAKTHROUGH

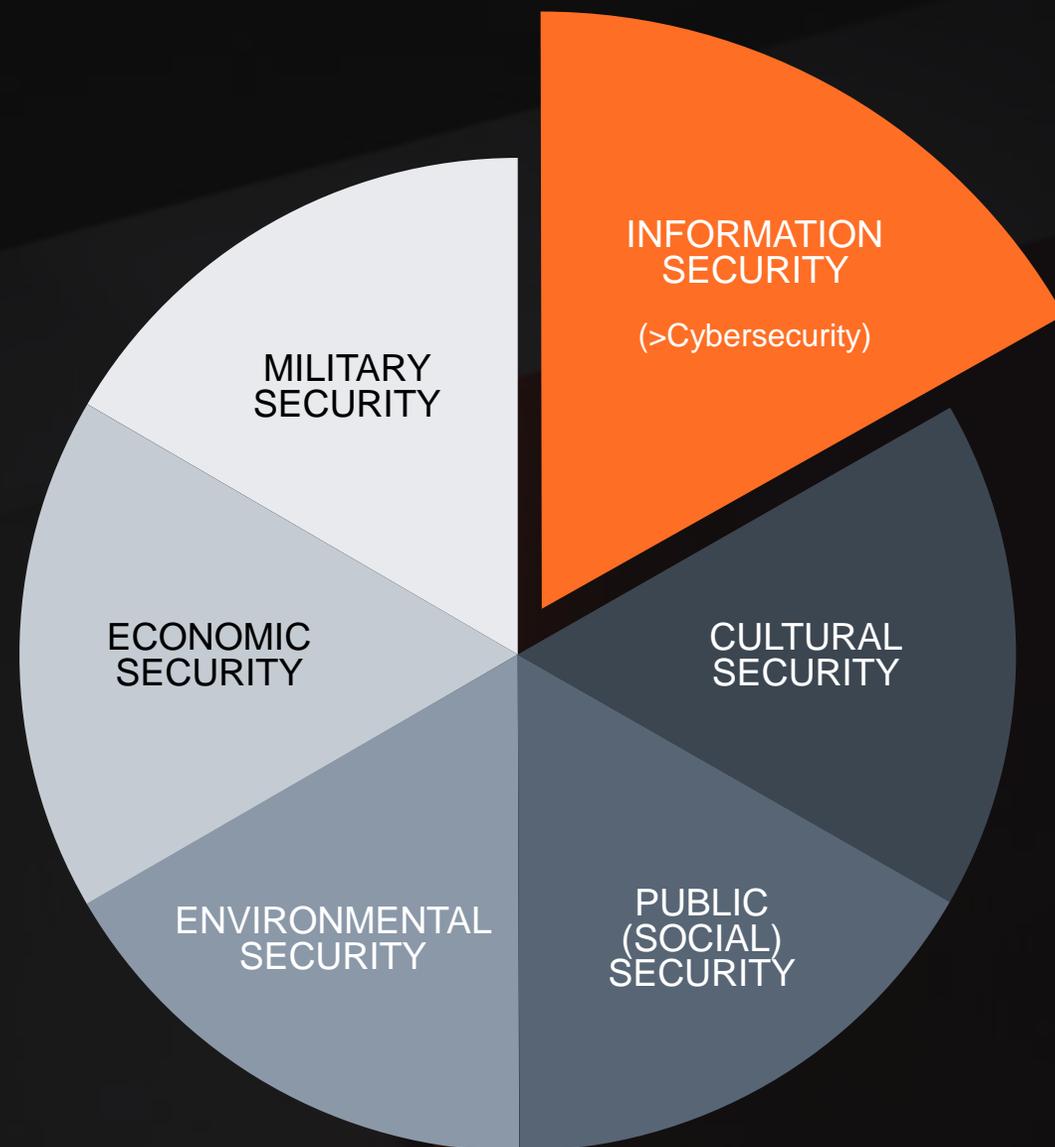


- Rapid technological progress
- Digitalization of governments and military
- Emerging Artificial Intelligence
- Rising number of web-resources

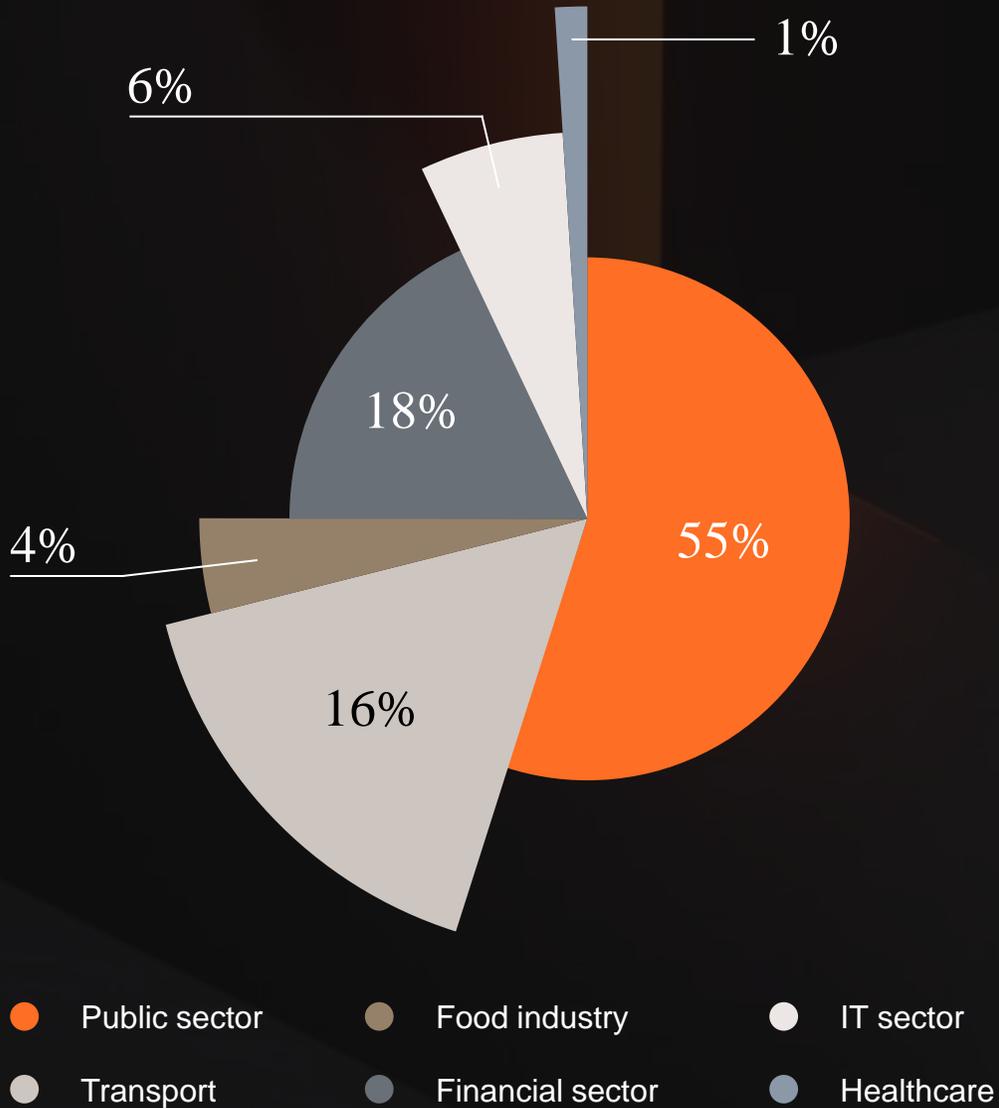
## CYBER RISKS



- Interstate geopolitical conflicts
- Terrorism and extremism
- Rising cybercriminal activity
- Existing vulnerabilities and exploits



# Critical public infrastructure – main target of cybercriminals



MALWARE  
INFECTION



NETWORK  
ATTACKS



ATTEMPTS TO EXPLOIT  
VULNERABILITIES

# Cybersecurity – a worldwide necessity



Investment in cybersecurity is not dependent on geography. Absolutely all countries regularly face new digital attacks



The average number of cyber attacks on organizations in Africa increased by 39% — more than the global average



Latin America is one of the least protected regions, with an average cybersecurity score of 10.2 out of 20



Public sector, transport and healthcare are the least protected sectors in the CIS



Ransomware, data loss and cyberespionage are among the main cyberthreats in MENA region



Southeast Asia countries are among the most frequently attacked and their mentions on the darknet have increased unprecedentedly



## SOLAR JSOC | MSS: THE VAST MSSP EXPERIENCE, A SERVICE-BASED ECOSYSTEM MODEL

Center for countering cyberattacks

- **Russia's leader in commercial MSSP**
- **1500+** organizations under protection
- **Top-5** European MSSP
- **Top-15** Global MSSP

Ensures the security of the country's key infrastructures, including: State services, direct lines of the President, electoral processes

## SOLAR CYBERRANGE AND «CYBERMIR» PLATFORM

Proprietary platform for conducting cyberdrills and trainings on twins of actual digital infrastructures

- Created within the **National Digital Economy Project**
- **500+** conducted cyberdrills
- **Adaptability** of infrastructures
- **Most up to date** scenarios

Vast experience in conducting international championships, drills and other events

## CYBERTHREAT RESEARCH CENTER



Unique and largest database of threats relevant to the Russian Federation



Data from the sensors of telecom network of Rostelecom - largest in the Russia



Telemetry of services of the largest commercial SOC in the Russia, as well as Solar products



Results of own cyber-landscape research

## MANAGEMENT CONSULTING ON CYBERSECURITY

Practical experience of implemented cybersecurity management consulting projects in key industries



Development of cybersecurity strategy: from assessment of maturity and diagnosis, to analysis of personnel expertise



Quantification of cybersecurity risks: trend analysis, construction of a risk management system, diagnosis of the cybersecurity service model

## Data and network protection

- Data Loss Prevention (DLP)
- Secure Web Gateway (SWG)
- Next Generation Firewall (NGFW)
- ERP Scan (Enterprise Resource Planning)

## Education and training

- Practice-based education on Solar Cyberrange
- Development of educational programs for cybersecurity specialists
- Evaluating the skill level of cybersecurity personnel
- Cyber exercises for various cybersecurity specialists
- Security Awareness
- Cyberdrills and cyberchampionships

## Application Security

- DevSecOps processes development
- SAST, DAST, SCA, SCS Technologies
- Application Security Center

## Access control

- Identity management / Identity Governance & Administration (IdM / IGA)
- Privileged Access Management (PAM)
- Data Access Governance (DAG)

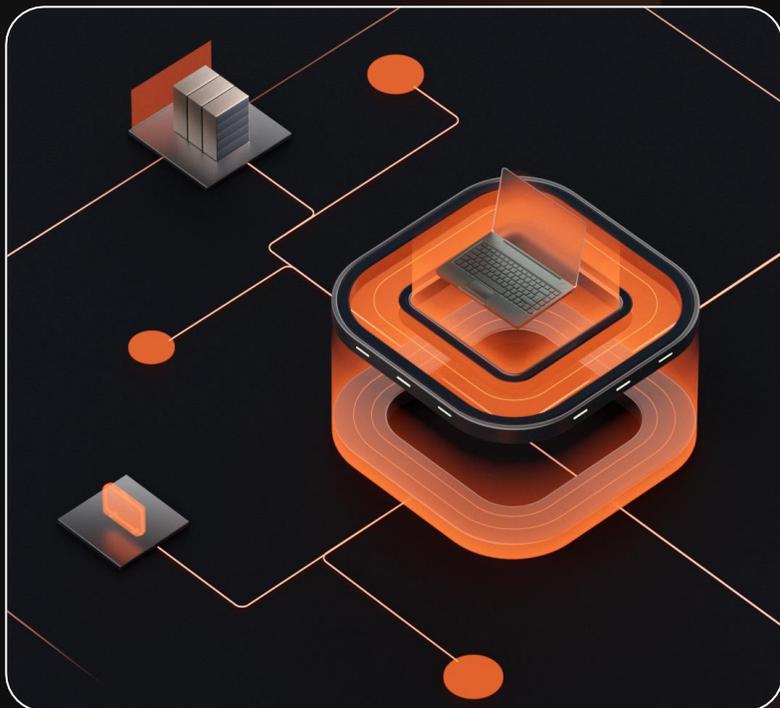
## SOC & MSS

- Security Operation Center consulting
- Managed Security Services
- Offensive security, penetration testing
- Threat Intelligence feeds (TI)
- Digital Risk Protection (DRP)

## Sovereign Cyber Defense

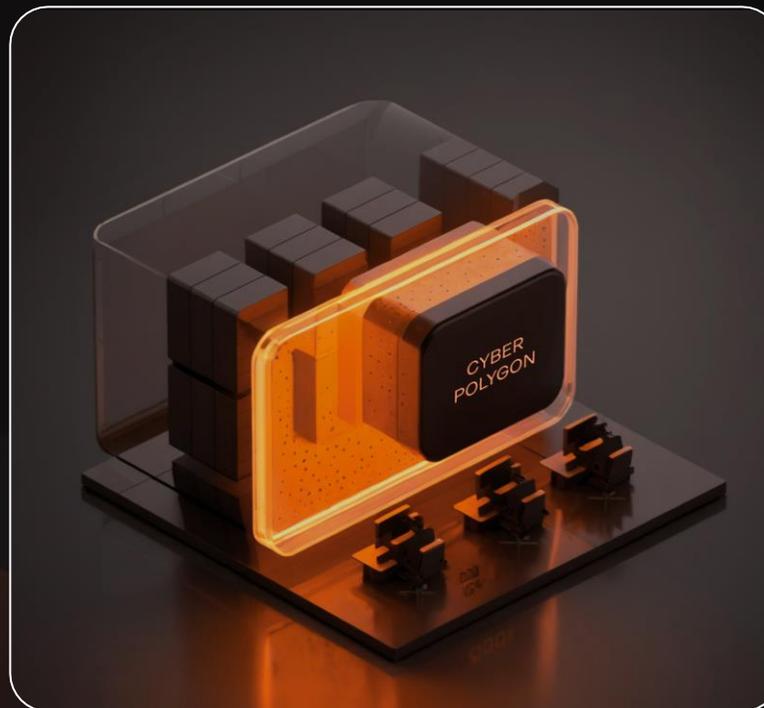
- DNS Radar – Cisco Umbrella alternative
- Own Cyber Fortress – Shodan alternative
- Solar Space – CloudFlare alternative

# Solar's expertise in helping build Digital Sovereignty



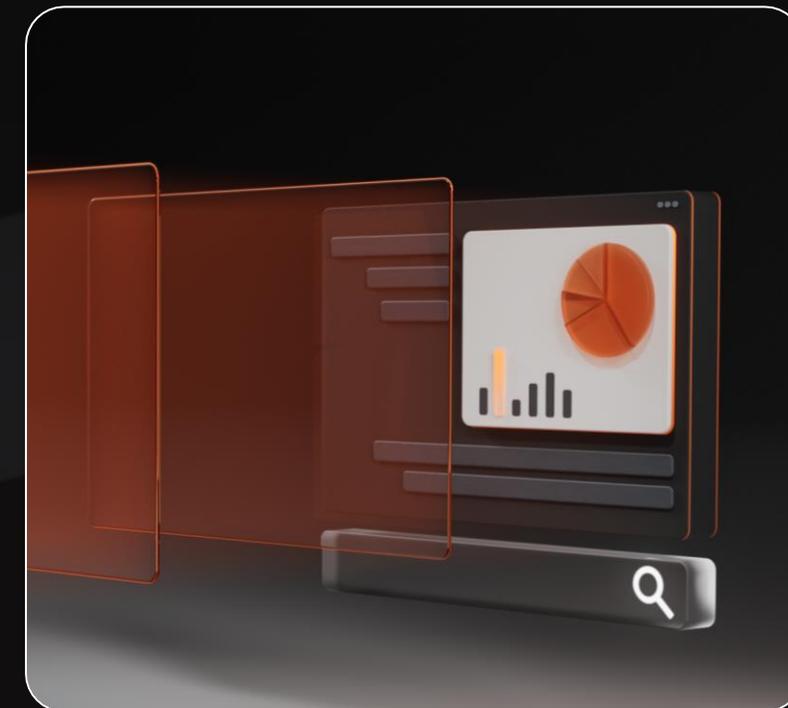
## INFRASTRUCTURAL SOLUTIONS

Creating computer incident response centers and security operations centers; building cyber ranges; implementing a web resource protection system and network security; building a software protection center; etc.



## EDUCATIONAL SOLUTIONS

Conduct of cyber-drills at the Solar Cyberrange; exercising the most relevant scenarios and techniques for countering cyberattacks in conditions close to real ones, on digital infrastructure doubles; training courses for cybersecurity specialists



## ARCHITECTURAL SOLUTIONS AND SERVICES

Assessment of the maturity of infrastructure; building a cybersecurity system at all levels; assessment of the competences of teams of cybersecurity specialists; testing and analysis of security; streamlining of processes

# National cybersecurity system

**Combatting cyberattacks:**  
National Center for monitoring and responding to computer incidents

**Education and training:**  
National system for constant training and enhancing skills of cybersecurity experts

**Network protection:**  
Perimeter protection of national telecom networks through traffic analysis

**Data protection and access control:**  
Up to date solutions for protection of information in critical infrastructure

**Application security:**  
National system for protection of applications and software

**Proactive security:**  
Continuous work on threat analysis, digital risk protection, security analysis, testing, etc.

**National regulation:**  
Competent cybersecurity Public Authority and robust legal framework

**Security awareness:**  
Continuous work on raising digital literacy of personnel and users



CYBERSECURITY ROADMAP: EFFECTIVE WAY TO IMPROVE INFRASTRUCTURE & SKILLS

# Cybersecurity Management Session: Tabletop Exercise

**Side Event format:** Management simulation

**Time:** 13:00 to 15:00, 26 October 2025

**Place:** Room R309A

**Participants:** Delegates of the Ceremony regardless of background and expertise

**Scenario:** 10 questions dedicated to 10 stages of a cyberattack. Each stage includes multiple-choice questions with response options. Participants receive expert explanations and practical insights throughout the simulation



## Stage 1

### Initial reconnaissance

On Monday morning, the SOC monitoring system detects suspicious activity: automated scanning of the company's external IP addresses and anomalous DNS queries to domains associated with the company's infrastructure.

#### Detected indicators

- Port scanning from IP addresses registered in a foreign state
- Searching for open services via Shodan
- Analysis of employee profiles on LinkedIn
- Attempts to identify software versions

Stage 1

A

Immediately block suspicious IP addresses

Stage 1

B

Continue monitoring without active intervention to gather data

Stage 1

C

Activate heightened monitoring mode and begin passive observation

Stage 1

D

Temporarily hide some services, change names, close banners or ports

Stage 1

Hint

At the initial reconnaissance stage, the main thing is not to scare off the attacker with premature actions. It is necessary to first understand the scale and nature of the attack through passive monitoring

## Reviewing the results of online Cybersecurity Training & Exercise

**25** teams from **10** countries participated in online cyber-exercise on 25 October 2025

**Participants:** 20 Blue teams and 5 CERT teams consisting of cybersecurity experts representing various regions

**Infrastructure:** Digital infrastructure twin created on Solar Cyberrange modeling real-life critical information infrastructure

**Scenario:** Participating teams were tasked with combatting waves of cyberattacks in the most up to date scenarios, as well as coordinating with CERT teams in responding to computer incidents



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