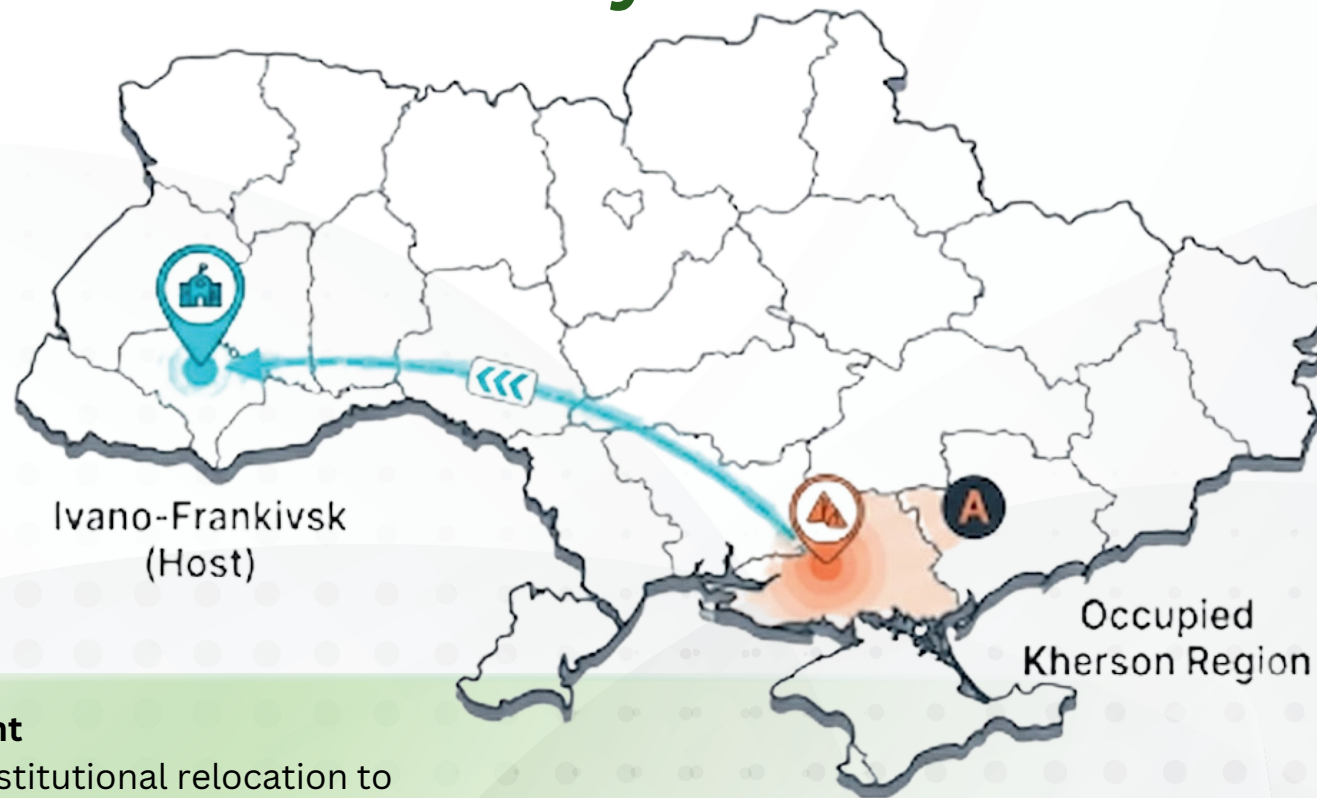
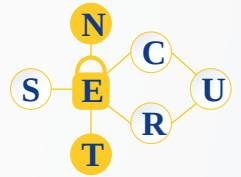


Welcoming a relocated university: infrastructure challenges and solutions

- Serhii Sharyn
Vasyl Stefanyk
Carpathian National University

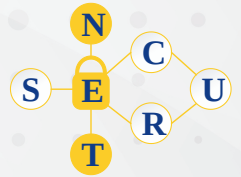
Wartime relocation of Kherson State University



The Solution & Key Insight

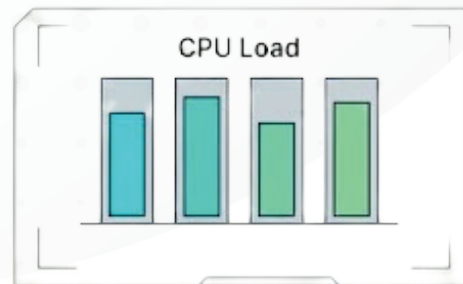
- The Solution: rapid institutional relocation to Vasyl Stefanyk Precarpathian (Carpathian) National University.
- Key insight: digital infrastructure became the strategic bridge connecting displaced staff, trapped students, and the new operational center. Resilience is a strategic imperative, not just a technical feature.

Determining server requirements



Performance

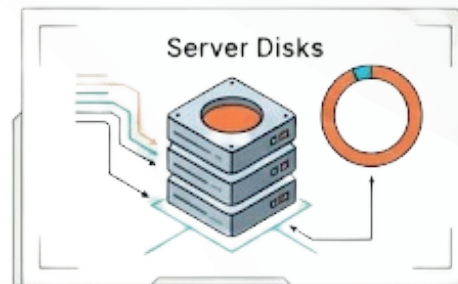
Processor power and memory to support thousands of concurrent users



Storage

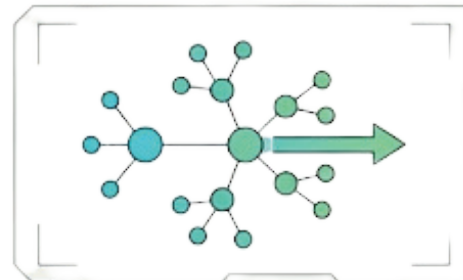
Storage

Capacity for massive research datasets and administrative databases.



Network

Scalability for sustained high-volume remote access

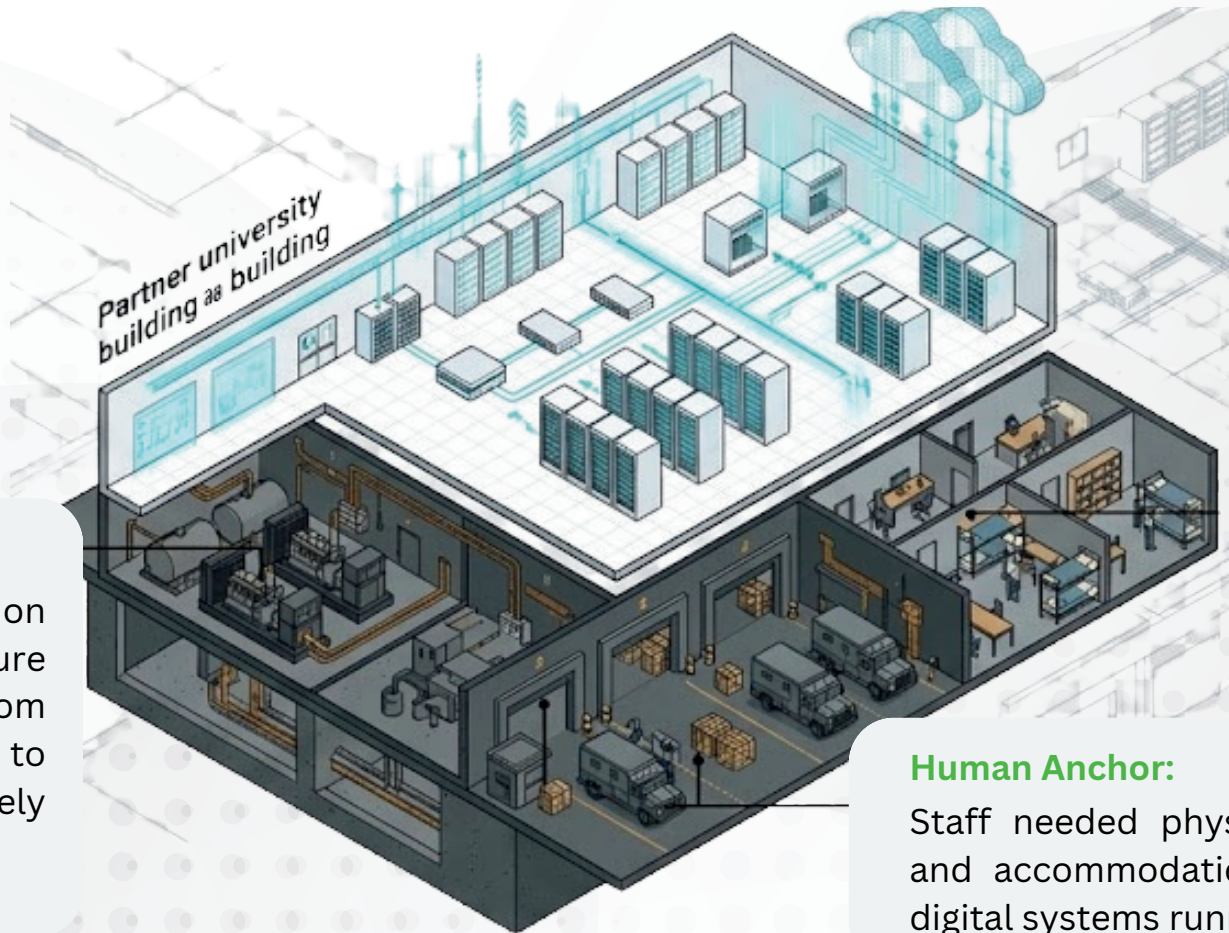
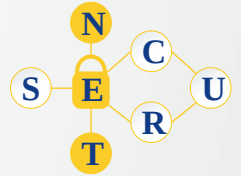


Security

Secure deployment and strict network isolation to mitigate heightened wartime cyberattack risks.



Preparing physical infrastructure



Power Instability:

Russian strikes on energy infrastructure required shifting from backup power to operating indefinitely off the national grid.

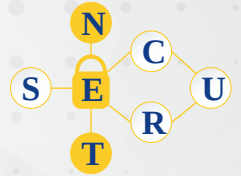
Logistics:

Hardware transportation was complicated by security concerns, checkpoints, and disrupted supply routes.

Human Anchor:

Staff needed physical workspace and accommodation to keep the digital systems running.

Communication resilience and network redundancy



Vulnerable Topology



The vulnerability: relying on a single telecommunications provider creates unacceptable operational risk during wartime. If the main line is severed, the entire administrative and educational system collapses.

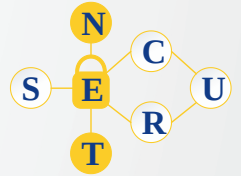
Resilient Topology



The solution: communication resilience demands diversity. Integrating multiple providers, alternative routing paths, and strict disaster recovery failovers ensures connectivity survives localized node failures.

Strategic lesson: Because universities serve geographically dispersed communities, network redundancy is one of the most vital investments an institution can make for digital resilience.

Risks associated with government digital services



The External Dependency

University operations rely heavily on centralized national digital platforms for identity management and regulatory reporting.



KSU (Relocated)



IP Restrictions



Security Verifications



Geo-blocks

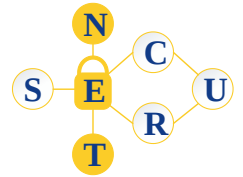


**Unified State Electronic
Education Database**

The Relocation Friction

- Government systems enforce strict geographic limitations and trusted-network verifications.
- Physical relocation changes IP addresses and network environments, instantly breaking access to these required state databases.

Building partnerships



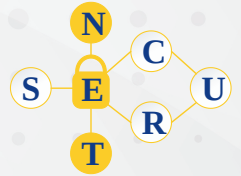
The Human Element

Technology alone could not solve the crisis. Establishing trust, communication channels, and shared responsibilities were foundational to the relocation.

Crucial Collaborative Outcomes

- Access: Partnering provided immediate access to secure facilities and operational support.
- Speed: Established trust drastically accelerated critical decision-making during a time when delays were exceptionally costly.
- Knowledge Sharing: Exchanging technical expertise prevented the repetition of mistakes and sped up implementation.

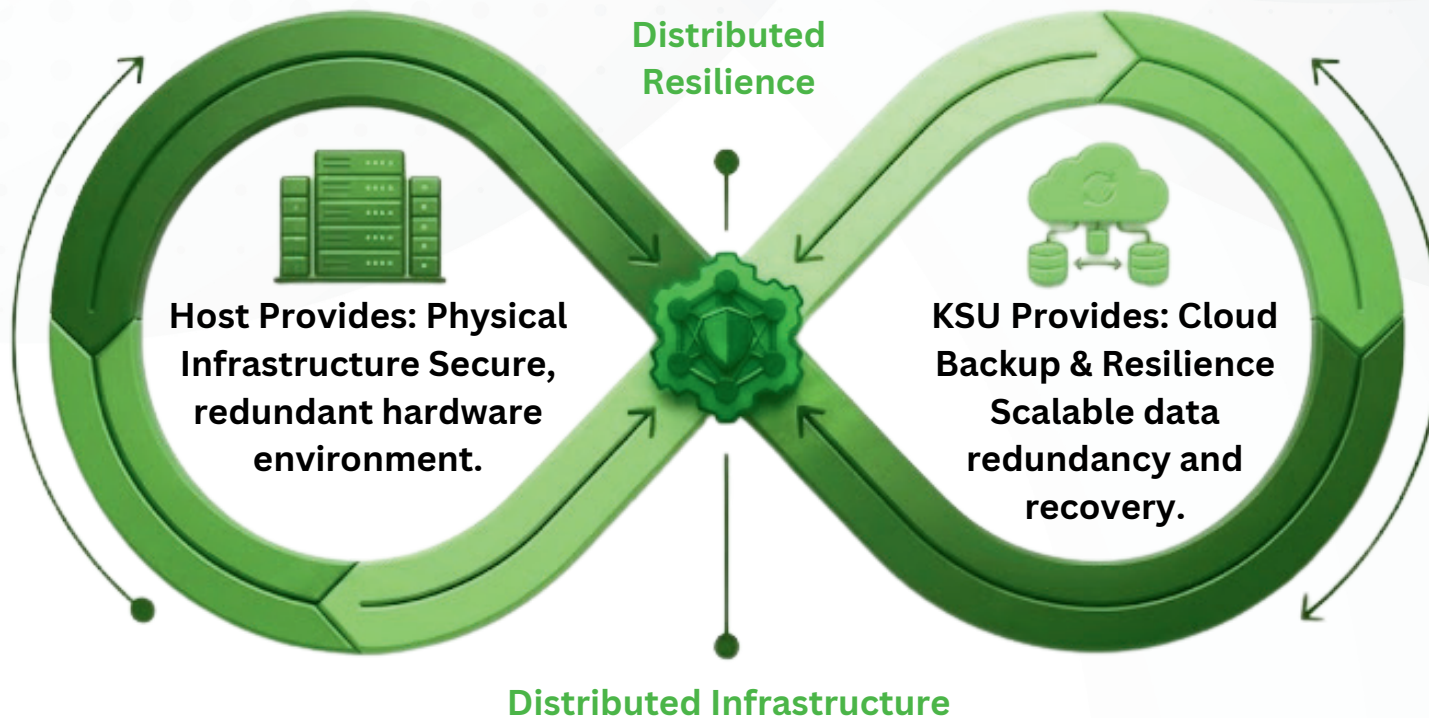
Reciprocal support through cloud services



Evolution of Partnership

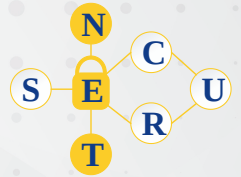
The Reciprocity

What began as one-sided emergency assistance rapidly evolved into structured, mutual support.

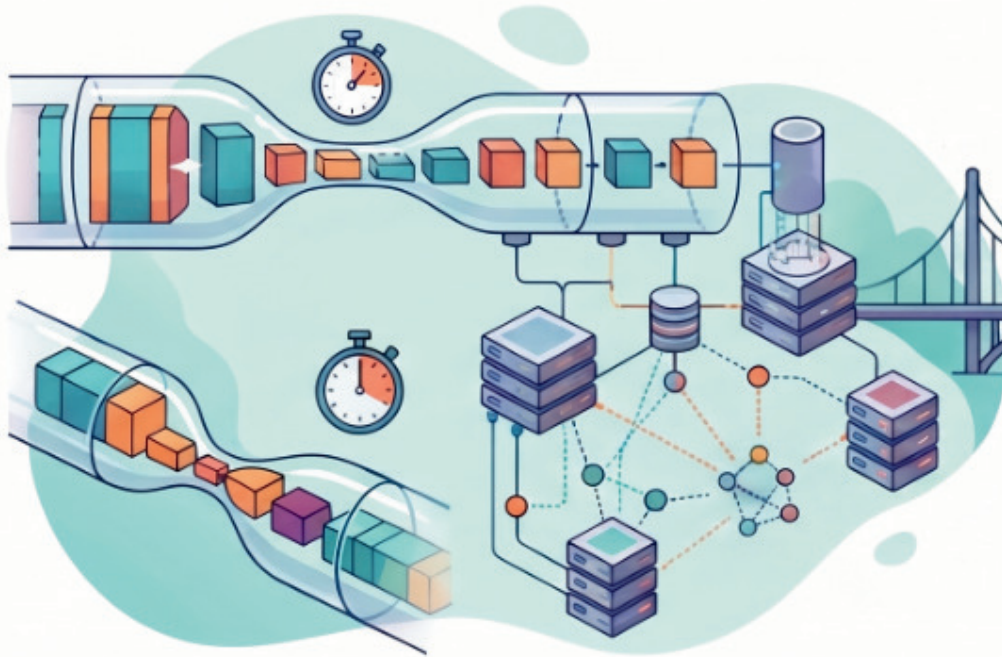


While the host provided crucial physical server space, KSU subsequently utilized its cloud solutions to back up the host's systems during blackout threats from Russian strikes.

Testing and staff training



Technical verification and testing



Pilot migrations

Finding hidden dependencies

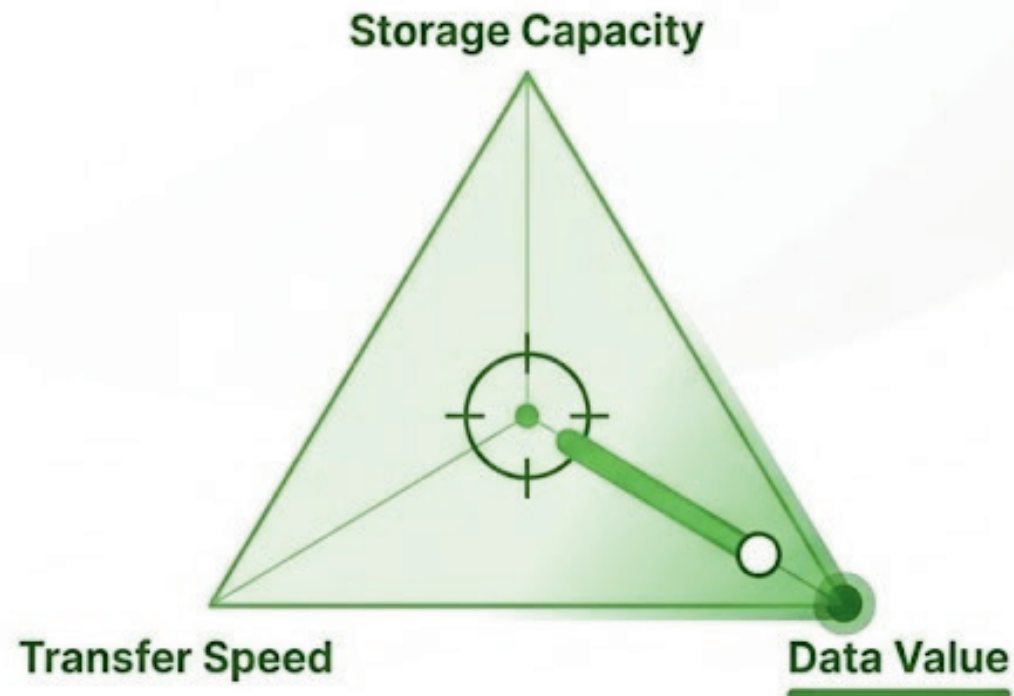
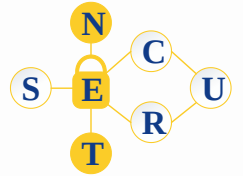
Human factor as the foundation of resilience



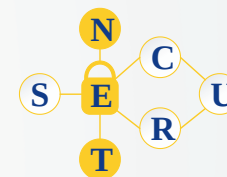
Advance staff training

Regularity

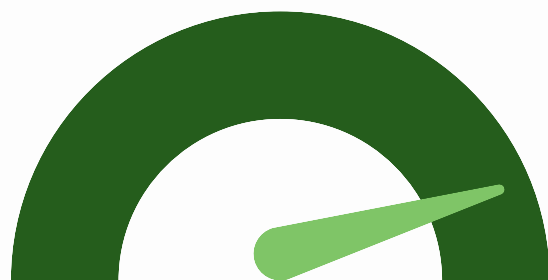
Backup strategies under wartime conditions



Strategic lesson: a backup is entirely useless if it cannot be restored. Regular verification procedures and restoration testing are mandatory to avoid a false illusion of security.



Efficient Use of Resources



Before Optimization



After Optimization

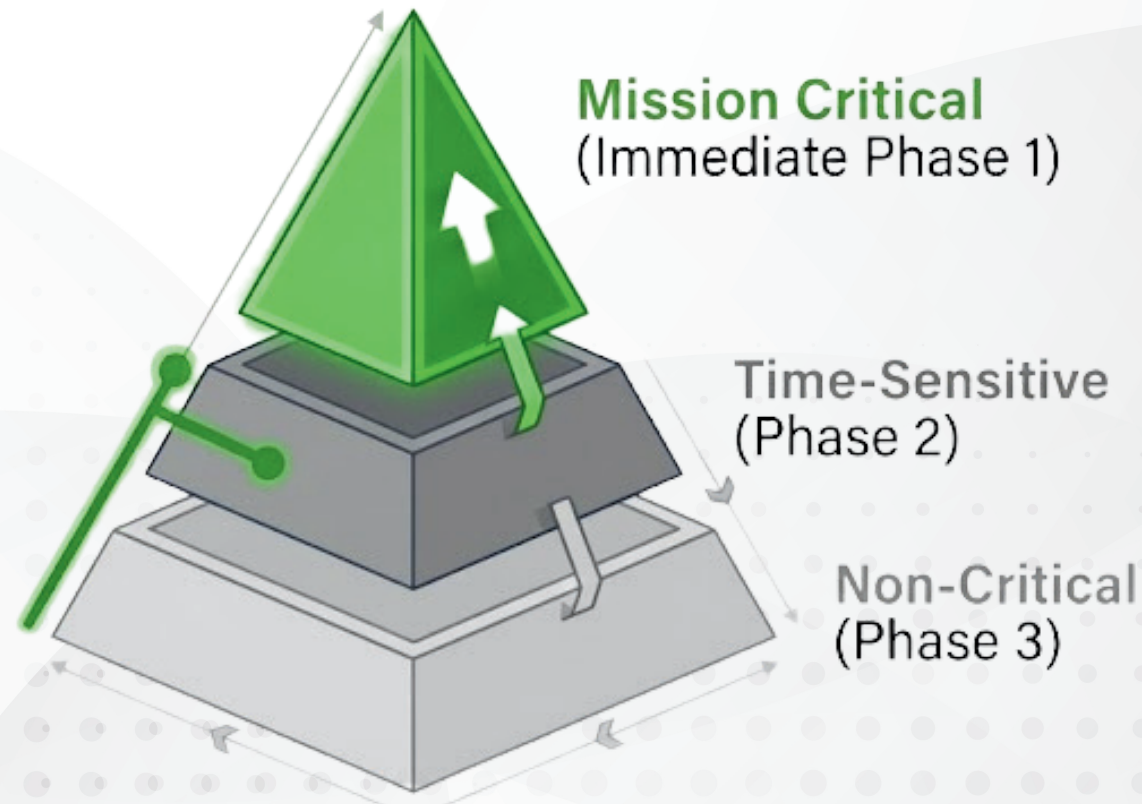
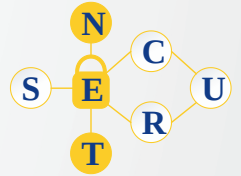
Technical Optimization Tactics

- Consolidating redundant services and eliminating unnecessary computational loads.
- Assessing true capacity needs (not all systems require maximum resource allocation).
- Optimizing website architecture to reduce infrastructure pressure.

The Human Optimization

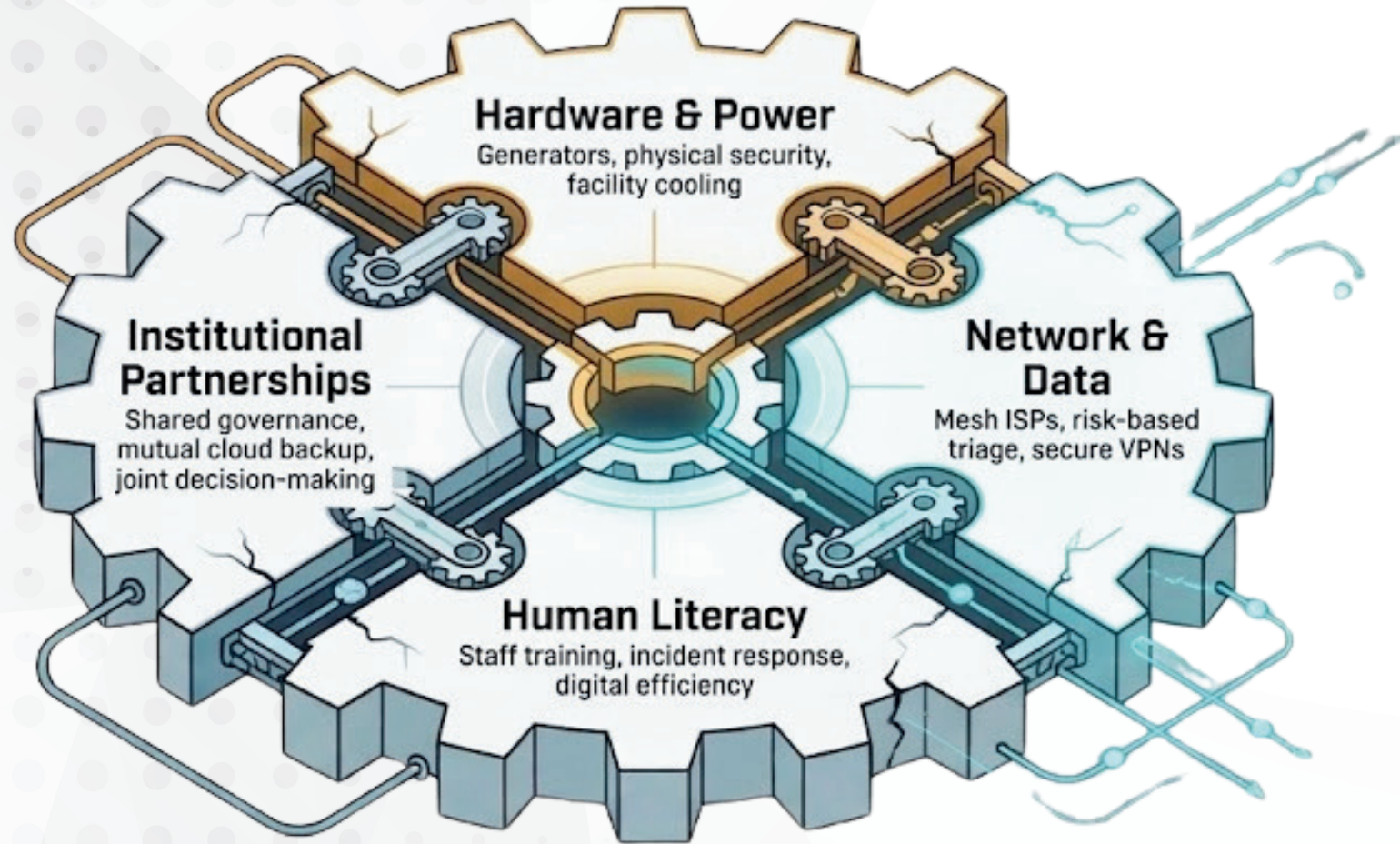
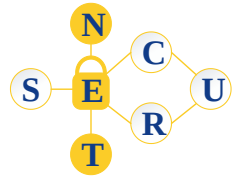
- Educating staff and students on digital literacy.
- Responsible digital use directly improved overall system stability.

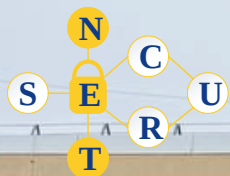
Prioritizing Data Migration



Strategic lesson: leadership must define objective, transparent, institution-wide criteria for ranking data importance (e.g., impact on student records, regulatory compliance) to ensure efficient, conflict-free resource allocation.

Conclusions: why systematic solutions matter





**Thank you
for your attention!**

● **Serhii Sharyn**

Vasyl Stefanyk

Carpathian National University



serhii.sharyn@cnu.edu.ua



57 Shevchenko str., Ivano-Frankivsk