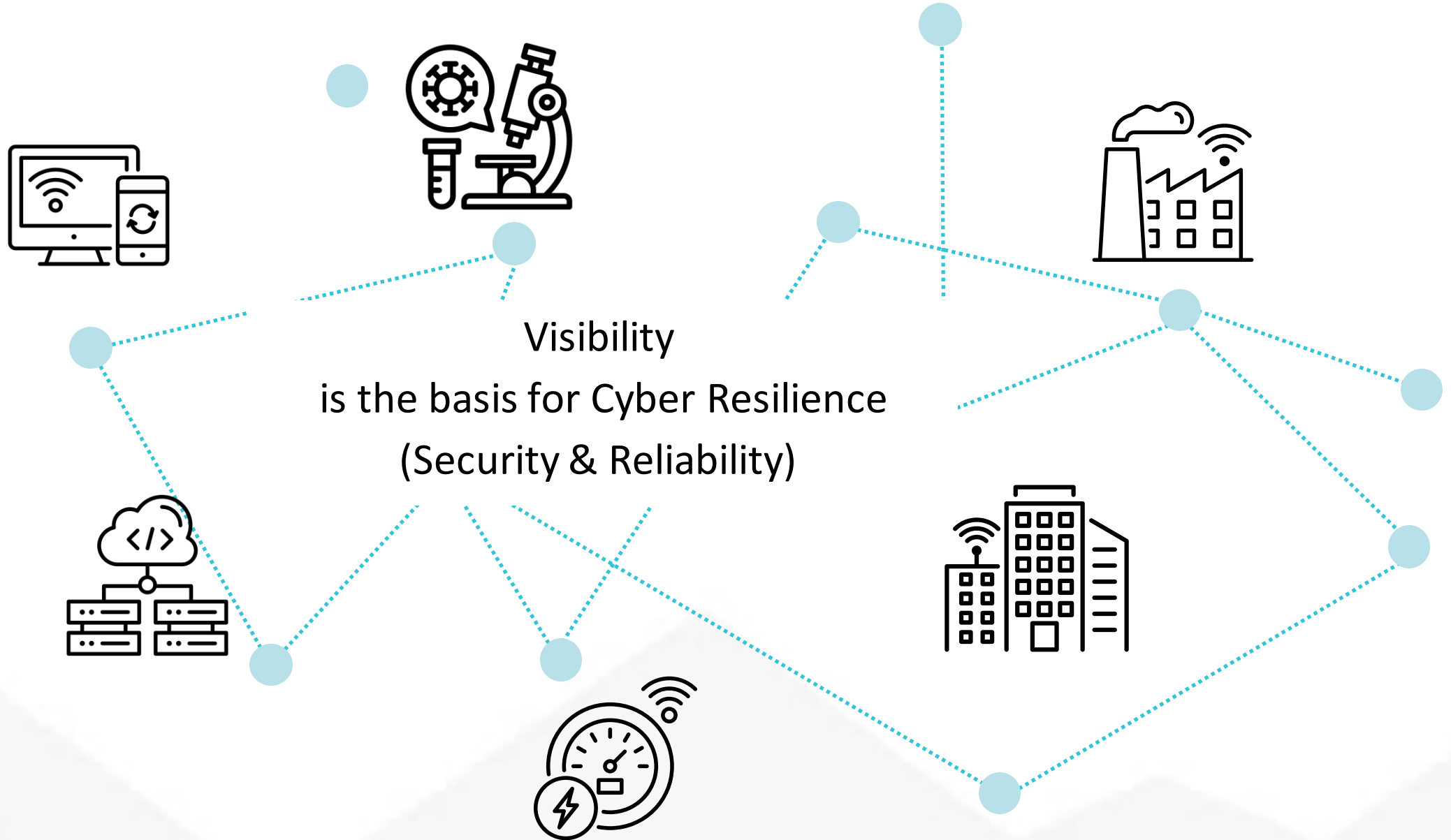


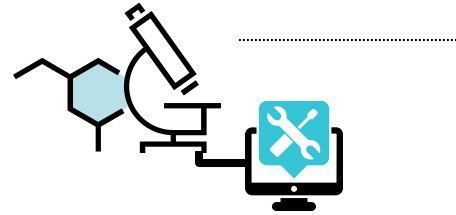
A scenic view of a mountain range. The foreground is dominated by a dense, dark green forest. In the middle ground, a rocky, light-colored ridge or path winds through the valley. The background features several jagged, rocky mountain peaks under a cloudy sky. The overall lighting is soft, suggesting an overcast day.

Hack4Glarus

IPv6 in OT networks, July 2023

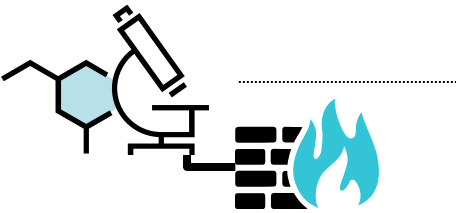


Focus topics



Operational Considerations:

- Network Visibility and Monitoring
- Configuration Validation and Audits
- Documentation and Training
- Chances and possibilities



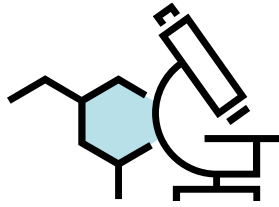
Security Considerations:

- ACLs and Firewalling
- Security Options (e.g. First-HOP-Security)
- Tunneling

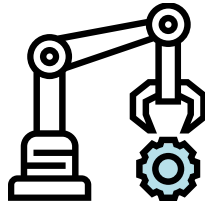
Data Retrieval

Query network devices like
firewalls, routers and
switches for information
about IPv6 configuration and
operational state.





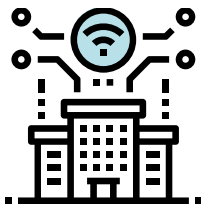
Visibility



Configuration Validation



place a IPv6 swiss army knife in the network



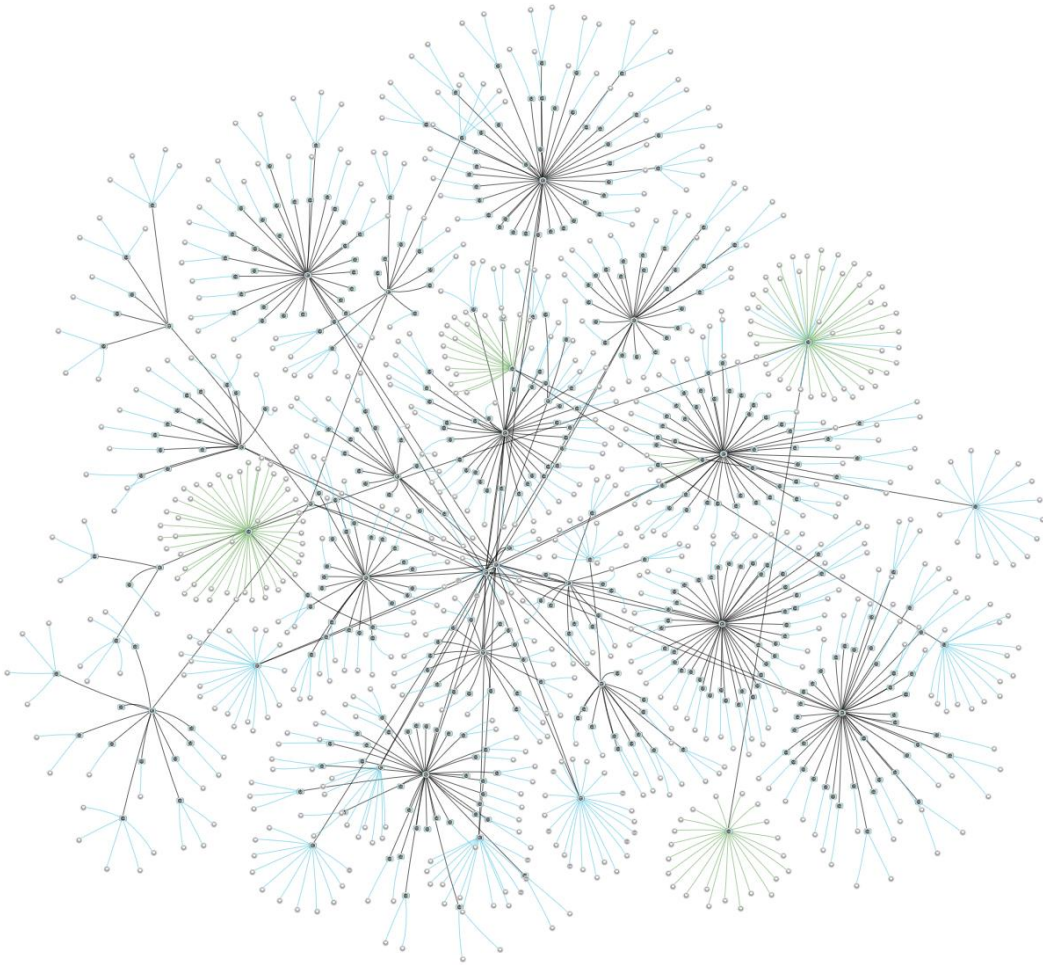
IPv6 analytics



Security experiments

In summary, by deploying an extra network scanner or sniffer within a segment, we gain improved visibility, configuration validation capabilities, insights into IPv6 usage, and enhanced security analysis. These benefits contribute to better network management, improved security practices, and a more efficient and secure network infrastructure.

Results and next steps



Results

- ✓ Different problem statements tested and evaluated
- ✓ Options for First-Hop security explored
- ✓ CLI Commands for cisco ios data retrieval summarized

Todo

- ✓ Work out a structured and prioritized list of potential risks and mitigations
- ✓ Think about positive possibilities to get people started with basic IPv6 deployments especially in these very conservative environments