



# Cybersecurity Challenges of 5G

Securing the long-term 5G Future

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## Questions expected to be answered..

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- How is 5G changing the security landscape, and what is being done to tackle the new security challenges?

### **What is 5G Security Landscape ?**

- How are Governments and industry working to stay one step ahead of the hackers and ensure that a 5G architecture is developed that delivers long-term end-to-end security and resilience?

### **Who are the Threat Agents ?**

- How can some of the international security concerns that have been raised be addressed by network providers, and how can wide-spread trust and confidence in the security of 5G networks be ensured?

### **What are the concerns ? What will it take to bring trust and confidence ?**

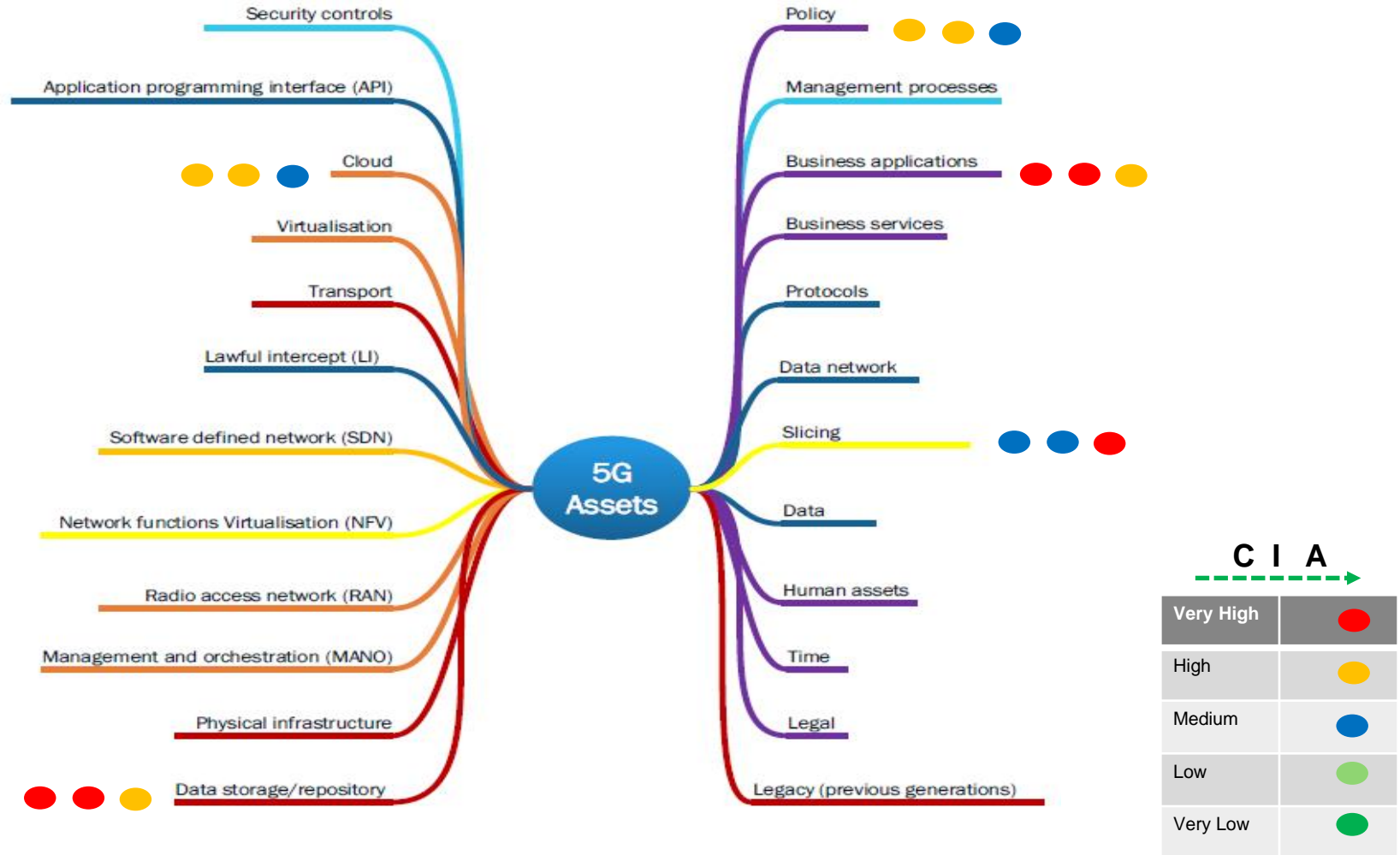
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## Threat Landscape for 5G Networks –

***To understand the cyberthreats on 5G Networks, it is essential to know the most critical assets that may be targeted by the malicious actors and the threat exposure of these assets.***



# 5G Asset Categories and Security Properties



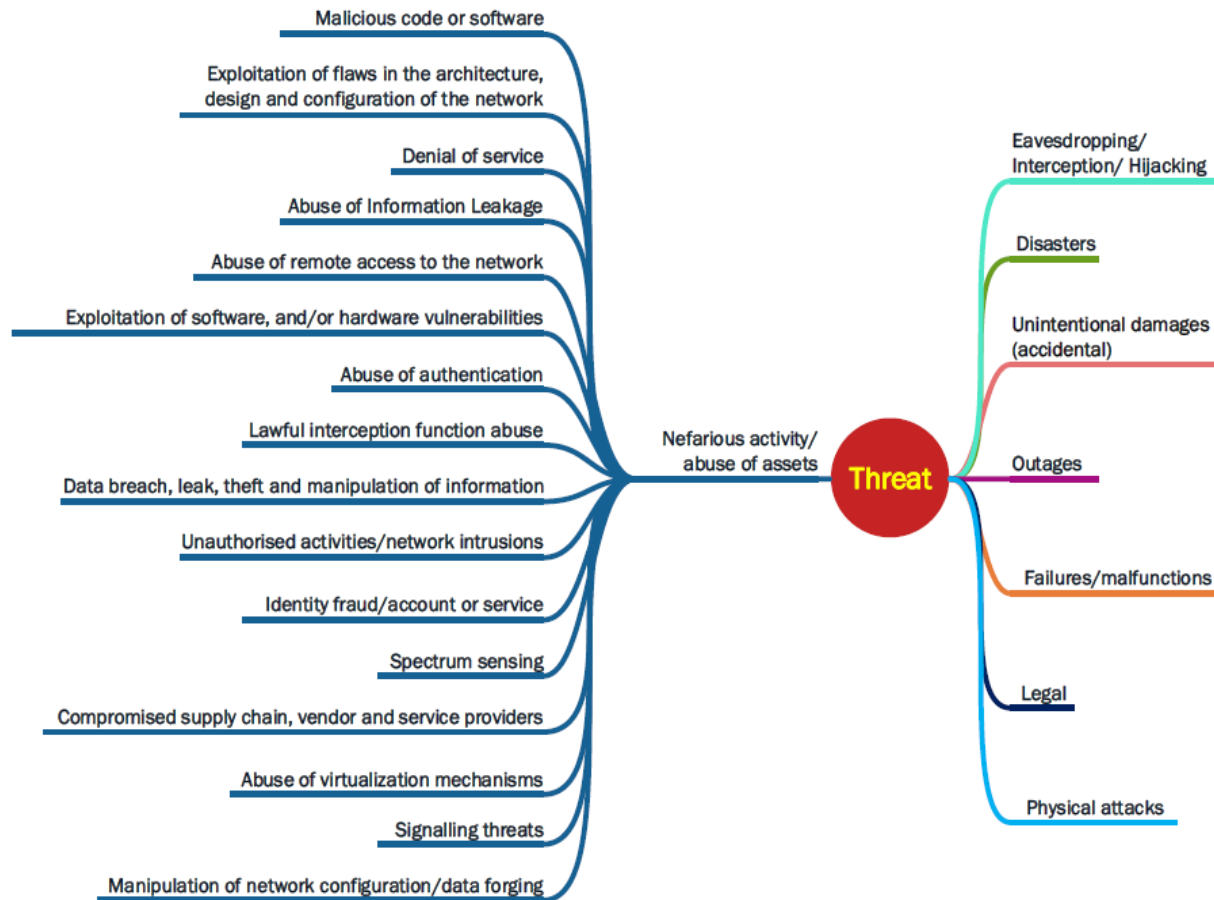


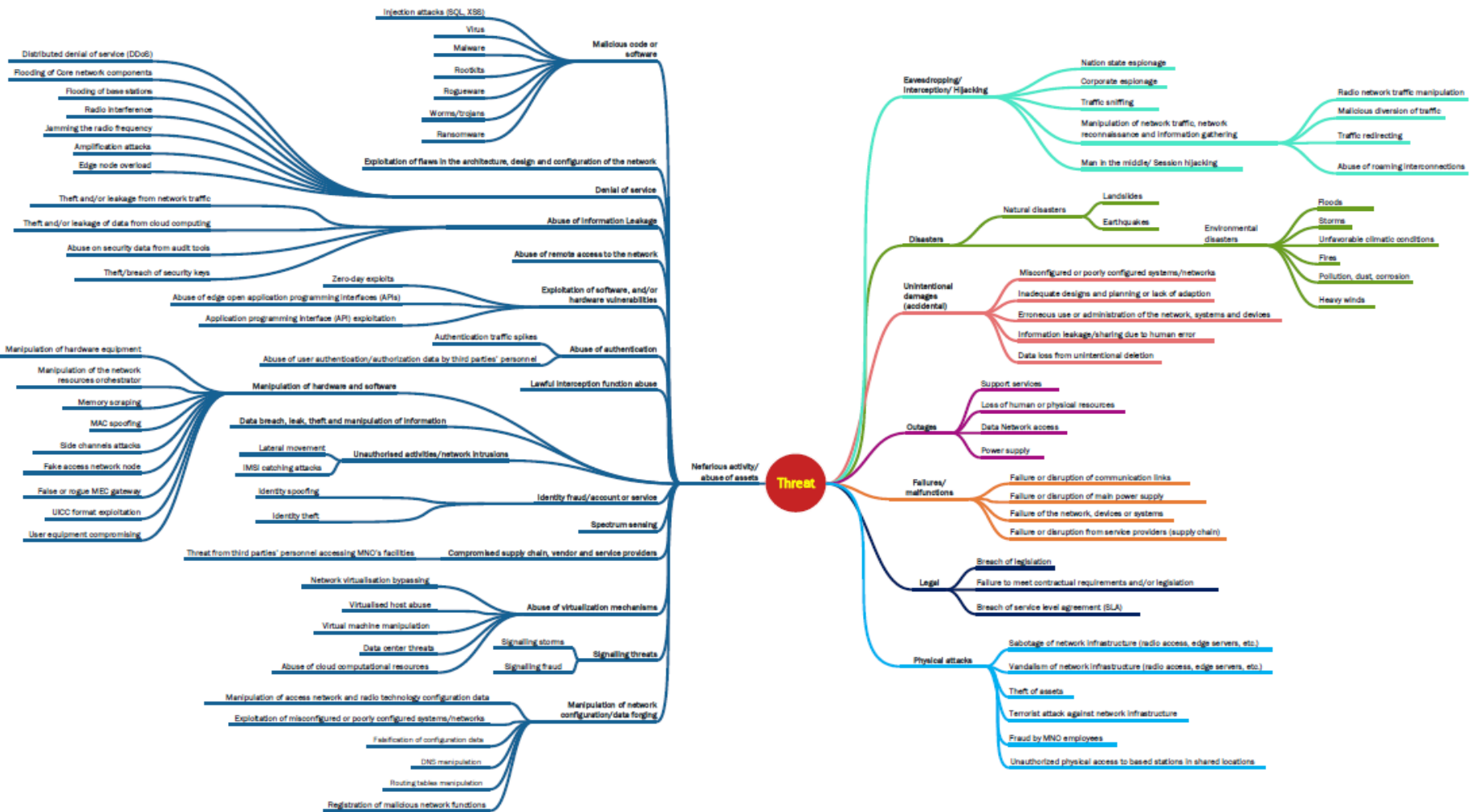
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# Taxonomy of Threats



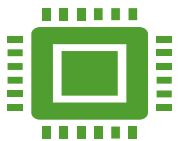
# 5G Threat Landscape



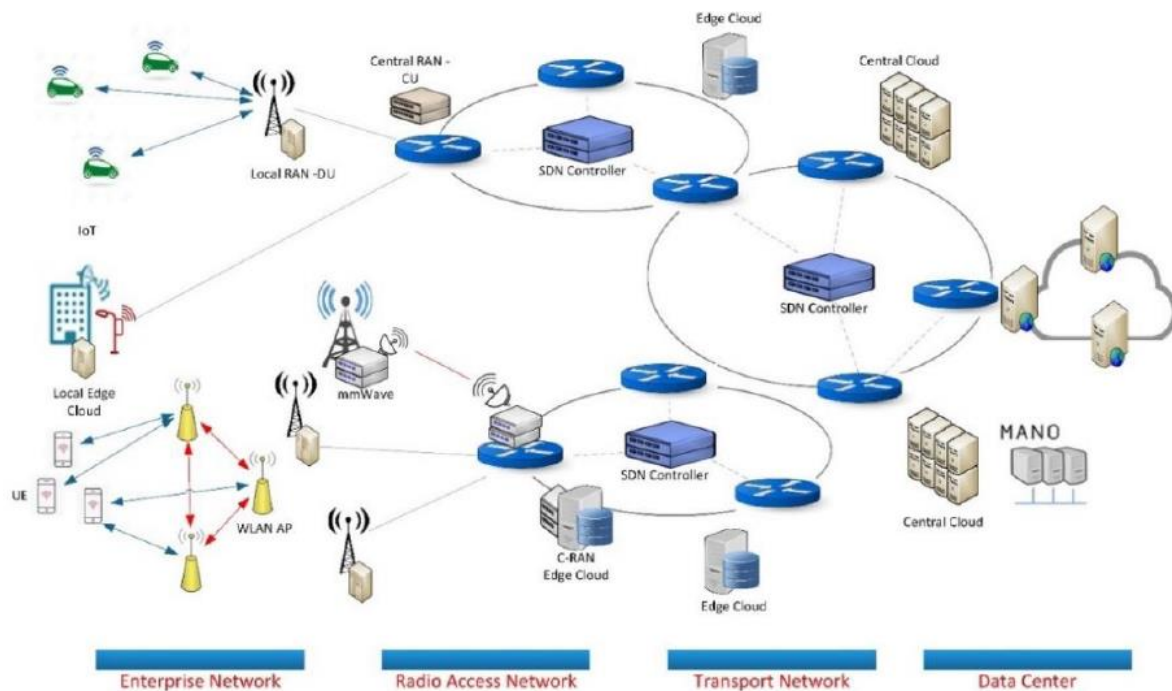




# Threat Agents



Cyberwar



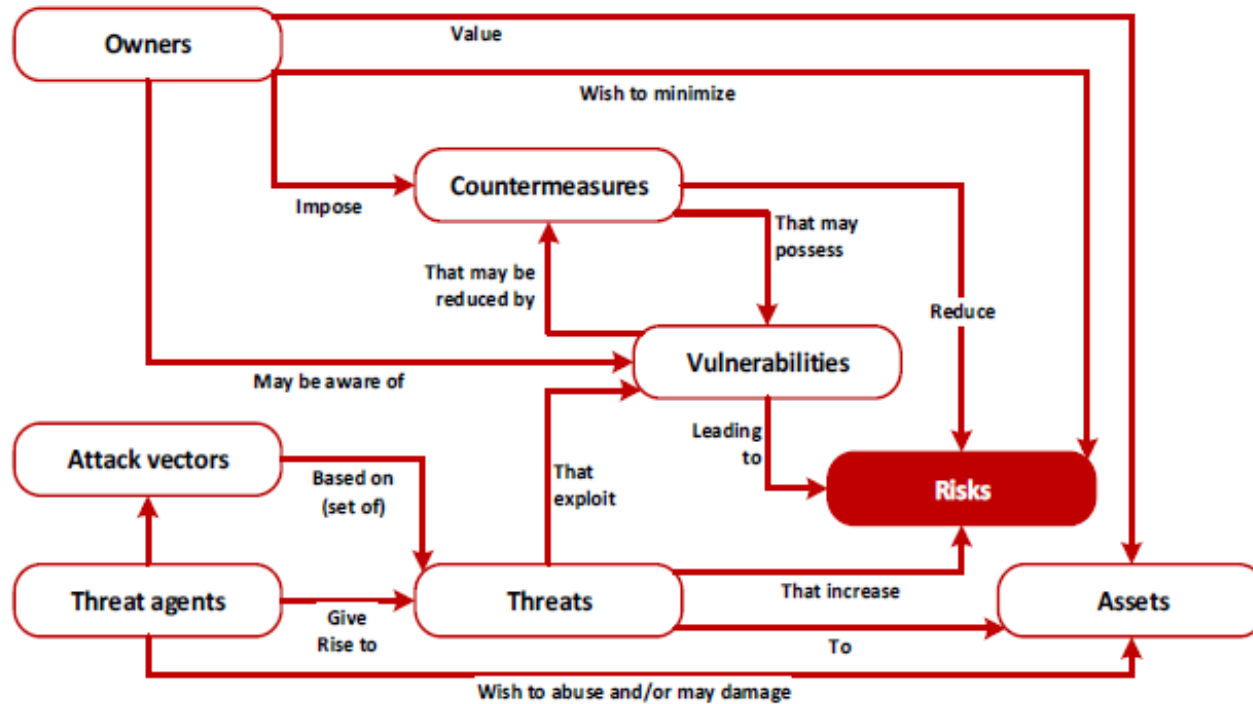
# What are the concerns ? What will it take to bring trust and confidence?

## Secret surveillance of Norway's leaders detected

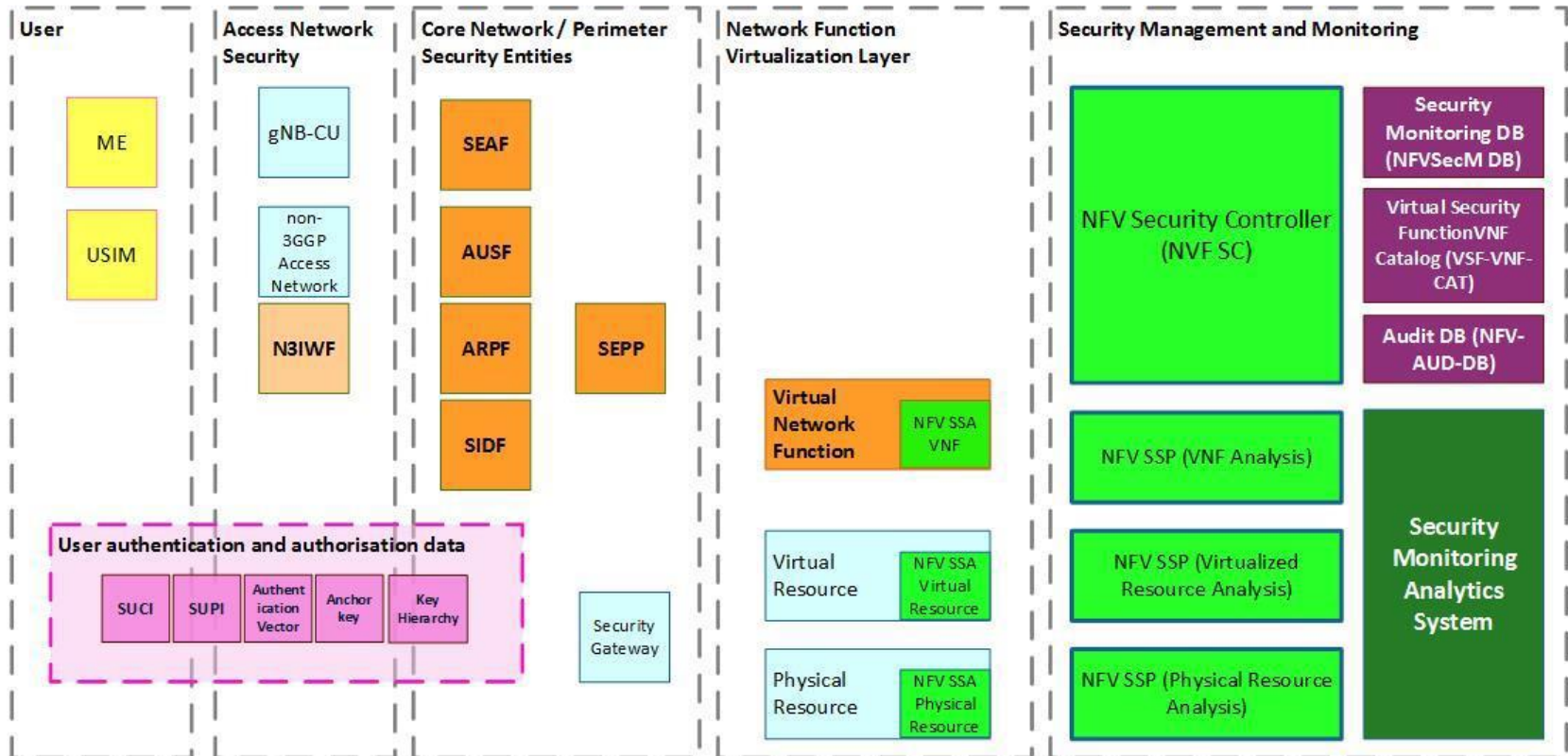
Members of parliament and the prime minister of Norway are being monitored by means of secret espionage equipment.



# Risk Assessment of 5G Networks



# 5G Security Architecture



# Conclusion

- The complexity and the extend of the attack surface shows that the following facts are going to change the attacker profile
  - New set of vulnerabilities will expand the attack surface, exposure and number of critical assets.
  - New tools and methods to exploit those vulnerabilities will be developed.
  - New motives/impacted targets are going to be observed due to the interconnected verticals/applications.

	Cyber-criminals	Insiders	Nation States	Cyber-warriors	Hacktivists	Corporations	Cyber-terrorists	Script-kiddies
Nefarious activity/Abuse	✓	✓	✓	✓	✓	✓	✓	✓
Eavesdropping/Interception/Hijacking	✓	✓	✓	✓	✓	✓	✓	✓
Disasters			✓	✓			✓	
Unintentional Damage	✓	✓	✓	✓				✓
Outages	✓	✓	✓	✓	✓		✓	
Failures/malfuctions	✓	✓	✓	✓	✓	✓	✓	✓
Legal	✓	✓	✓	✓	✓	✓	✓	
Physical attacks	✓	✓	✓	✓	✓	✓	✓	



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Thank you ...

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