Security threats of interconnecting Internet Service Providers domains for distributed network applications

Abstract.
This research aims to classify the models and security threats of interconnecting Internet Service Providers domains for distributed network applications. Network Function Virtualization (NFV) has recently gained widely attention for Internet Service Providers. The standardization work from ETSI has outlined a common framework for Network Function Virtualization, but the framework is open for multiple combinations of components both within and outside the NFV domain. These components consist of multiple transport technologies and interfaces that opens up for a variety of NFV models. From an Internet Service Provider perspective, it is important to identify the models and the security threats. Hence, this research will evaluate the current NFV transport mechanisms and cross-reference them to security threats and adversary models.
The general work within the NFV transport domain is driven by multiple actors where both academia, standardization organizations and the open source environment are augmenting the technology. To avoid working silos, it is also important to classify the actors and discover overlapping work.
This research proposes a taxonomy of NFV Transport mechanism. By categorizing the detailed differences between the NFV transport models, it will identify the current security gap and address security related NFV research questions.

About myself:

Håkon Gunleifsen did his bachelor in Telematics at UiA (2000) and his masters in Information and Communication Technology from UiA and Waterford IOT, Ireland (2002).
Besides from being a founder and a entrepreneur of a small telecom operator, he has spent his career in working for various Norwegian broadband companies. Currently, Håkon works for Eidsiva bredbånd, and has been employed there since the founding of the company in 2005. His area of expertise is within system administrator, network design and network system integration. He considers himself to be a proxy between software developers and network engineers.
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