

Motivation

- Cyber attacks may cause total collapse of computer networks, financial systems, government and critical infrastructures.
- We have severe shortage of workforce who are expert in cybersecurity.
- Our goal is to develop educational and training programs to educate students, professionals and teachers by offering these programs as cloud services.
- Cyber security Lab as a Service (CLaaS) will allow users to perform cyber security experiments and understand the underlying principles behind these attacks without the need to have physical cybersecurity lab by exploiting cloud virtual services and Software Define Network (SDN Technologies).

Goals

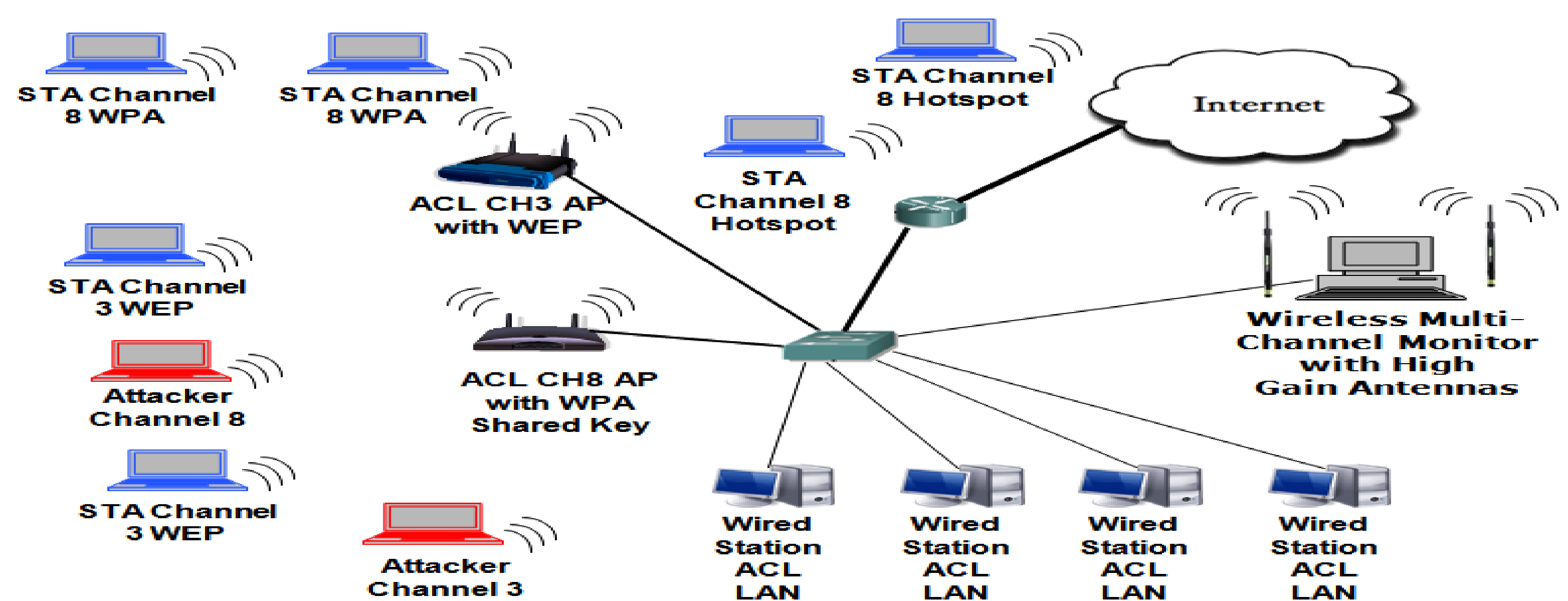
- Develop an innovative and interactive cyber assistant to construct on the fly virtual cybersecurity experiments
- CLaaS will support a wide range of virtual security experiments to learn about how attackers can launch DDoS, DNS Attacks, Wireless attacks, SCADA attacks (Modbus, DNP3, Zigbee)
- It will provide users with attack libraries, configurable experiments in the virtual lab along with analysis and virtualization tools.
- To help educate students about the causes for cyber attacks, how they are launched and exploited.
- Evaluate different attack detection and protection techniques that can be easily implemented using CLaaS tools and services

AskCyPert about CLaaS



Typical CLaaS Request: I need a virtual experiment to learn about WiFi attacks.

Support Personnel Response: Guides how to build Experiment with attack libraries and virtual components already available.



CLaaS Architecture

