STUXNET

**Overview:**

Stuxnet was a computer virus, more specifically a worm which was speculated to be developed in 2005. It is believed to be developed jointly by the U.S.A. and Israel and was majorly targeted towards Iranian nuclear facilities.

**Operation:**

Stuxnet was designed to specifically attack SCADA (supervisory control and data acquisition) configured PLC (programmable logic controllers). PLC’s are typically used for industrial automation. The malware took care to attack only PLC’s spinning within a certain frequency range (807 Hz to 1210 Hz). Each infected was limited to spread the virus onto only 3 other machines.

**Victims:**

The primary victim is said to be Iran while other major countries infected include Indonesia and India. It was aimed at Iranian nuclear facilities (Bushehr Nuclear Power Plant and Natanz nuclear Facility) to modify the frequency to 1410 Hz and then to 2 Hz and then to 1064 Hz affecting the operation of connected motors by changing the rotational speed resulting in the destruction of centrifuges.

**Removal:**

Siemens PLC’s have released s detection and removal tool for Stuxnet and had reported removal of the virus successfully from 22 systems in the initial 4 month of the discovery.