## Advanced Cryptography and PKI

Three characteristics of  $key\ strength$ :

- $\bullet$  randomness
- length of key
- cryptoperiod expiration

Need to explore about half of keyspace in order to break

## Block Cipher Modes of Operation

- Electronic Code Block (ECB)
- Cipher Block Chaining (CBC)
- Counter (CTR)
- Galios / Counter (GCM)