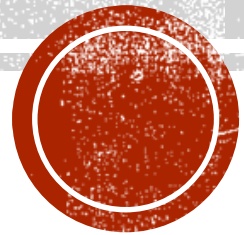
DIGITAL SIGNATURE ALGORITHM



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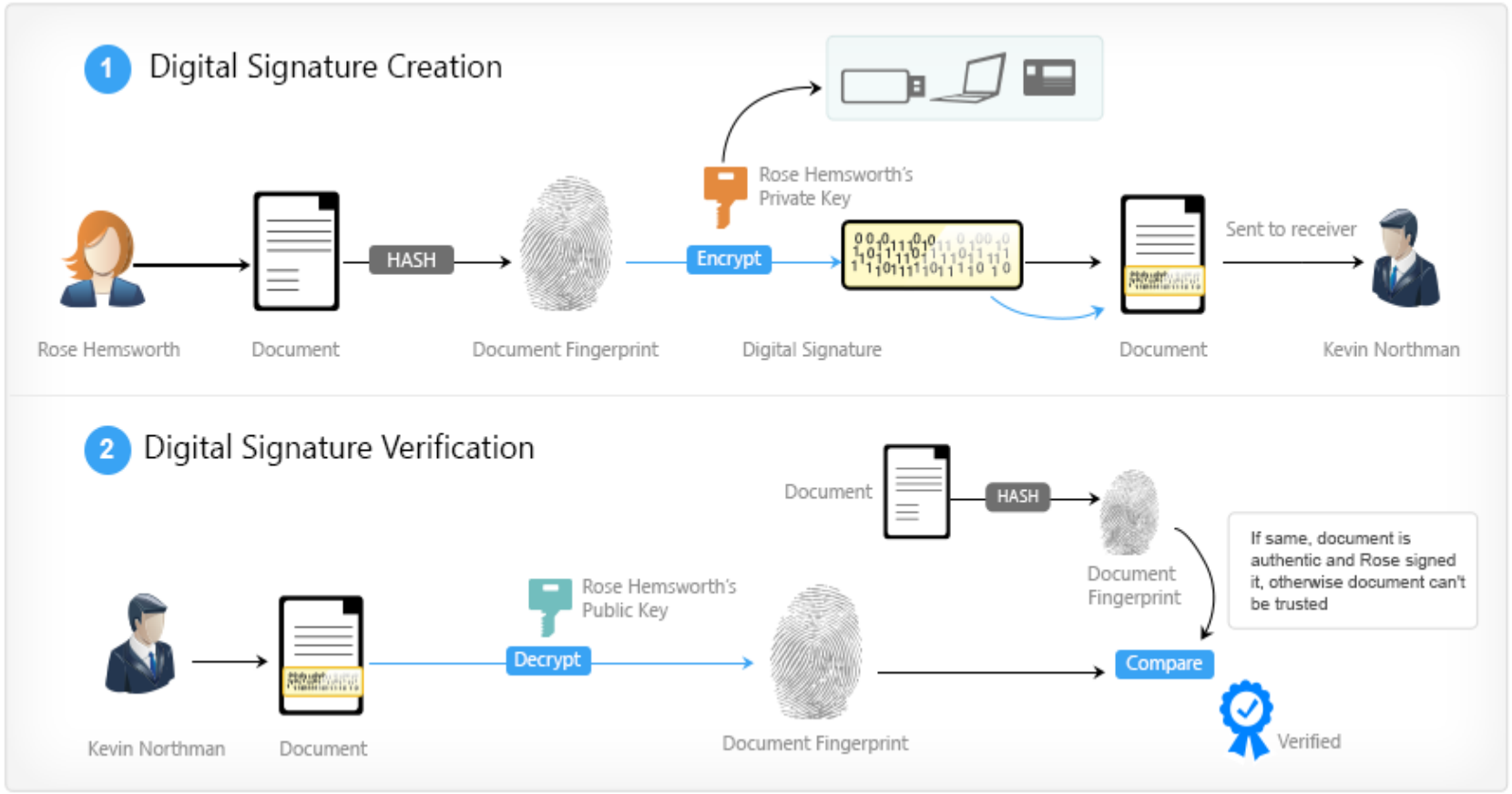
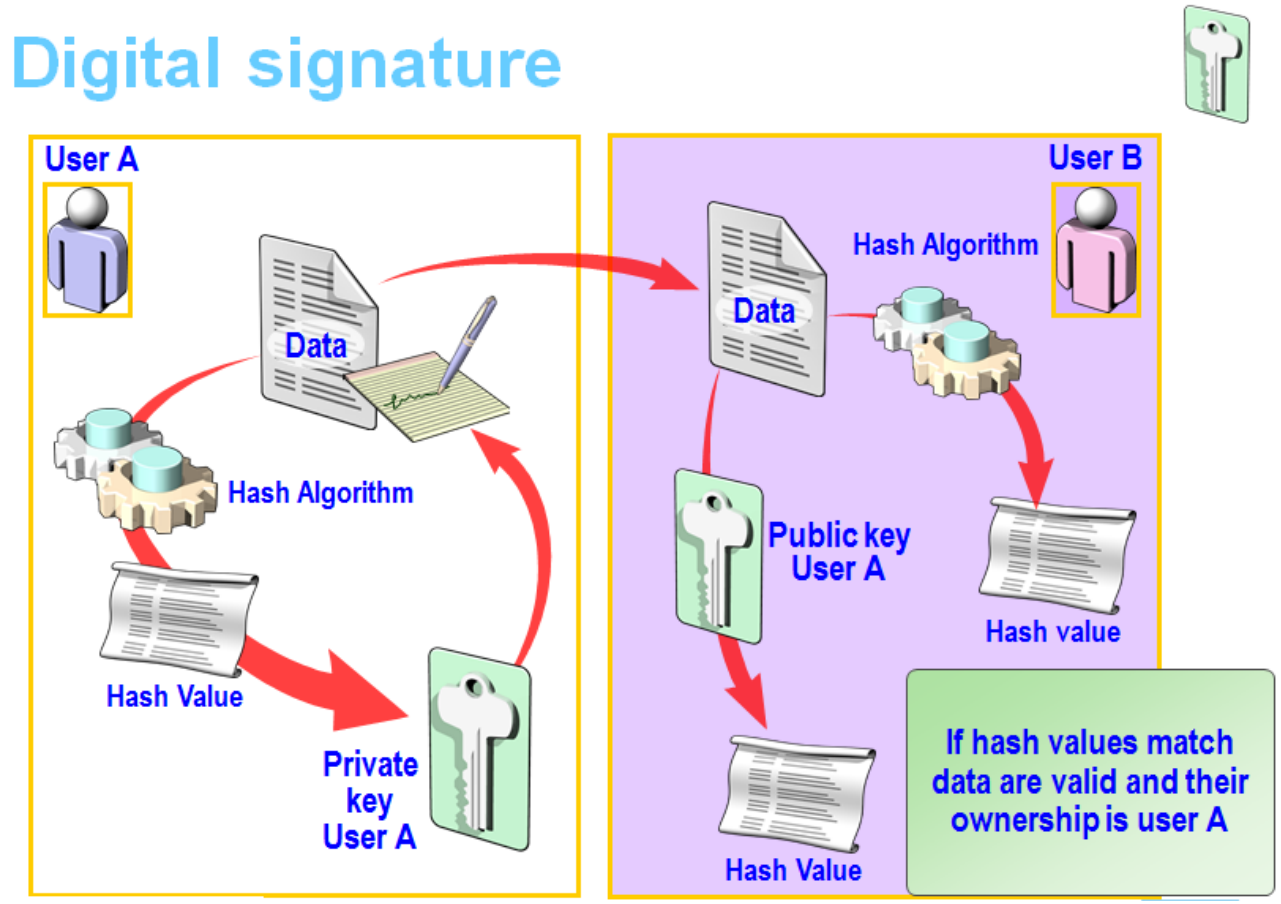
DIGITAL SIGNATURE

- A **digital signature** is a mathematical scheme for demonstrating the authenticity of digital messages or documents. A valid digital signature gives a recipient reason to believe that the message was created by a known sender (authentication), that the sender cannot deny having sent the message (non-repudiation), and that the message was not altered in transit (integrity).



DIGITAL SIGNATURE

- Digital signatures are a standard element of most cryptographic protocol suites, and are commonly used for software distribution, financial transactions, contract management software, and in other cases where it is important to detect forgery or tampering.



DSA

- **DSA-Digital Signature Algorithm** is a variant of Schnorr and ElGamal signature algorithms, which is DSS (Digital Signature Standard) by NIST in the United states.
- In a simple way, **DSA** is a more advanced verification method that is used as a digital signature. Not only the public key, the private key, but also the digital signature. Private key encryption generates digital signature, public key authentication data and signature. If the data and signature do not match, the verification failure is considered! The function of digital signature is to check the data and not to be modified in the process of transmission. Digital signature is the upgrade of one-way encryption!

JSON

- Dataframe in R

	year	Byte
1	1970	262144
2	1971	262144
3	1972	262144
4	1973	262144
5	1974	262144
6	1975	262144
7	1976	262144
8	1977	262144
9	1978	262144
10	1979	262144
11	1980	262144
12	1981	262144
13	1982	262144
14	1988	2097152

Json

- library(rjson)
- json_RAM <- toJSON(RAM_size,method = "C")

```
> json_RAM
[1] "{\"year\":[1970,1971,1972,1973,1974,1975,1976,1977,1978,1979,1980,1981,1982,1988,1
989,1990,1991,1992,1993,1994,1995,1996,1997,1998,1999,2000,2004,2009,2014],\"Byte\":[26
2144,262144,262144,262144,262144,262144,262144,262144,262144,262144,262144,262144,26214
4,2097152,2097152,2097152,16777216,16777216,16777216,16777216,16777216,268435456,268435
456,1073741824,1073741824,1073741824,4294967296,8589934592,17179869184]}"
```