Computer Networks: Network security

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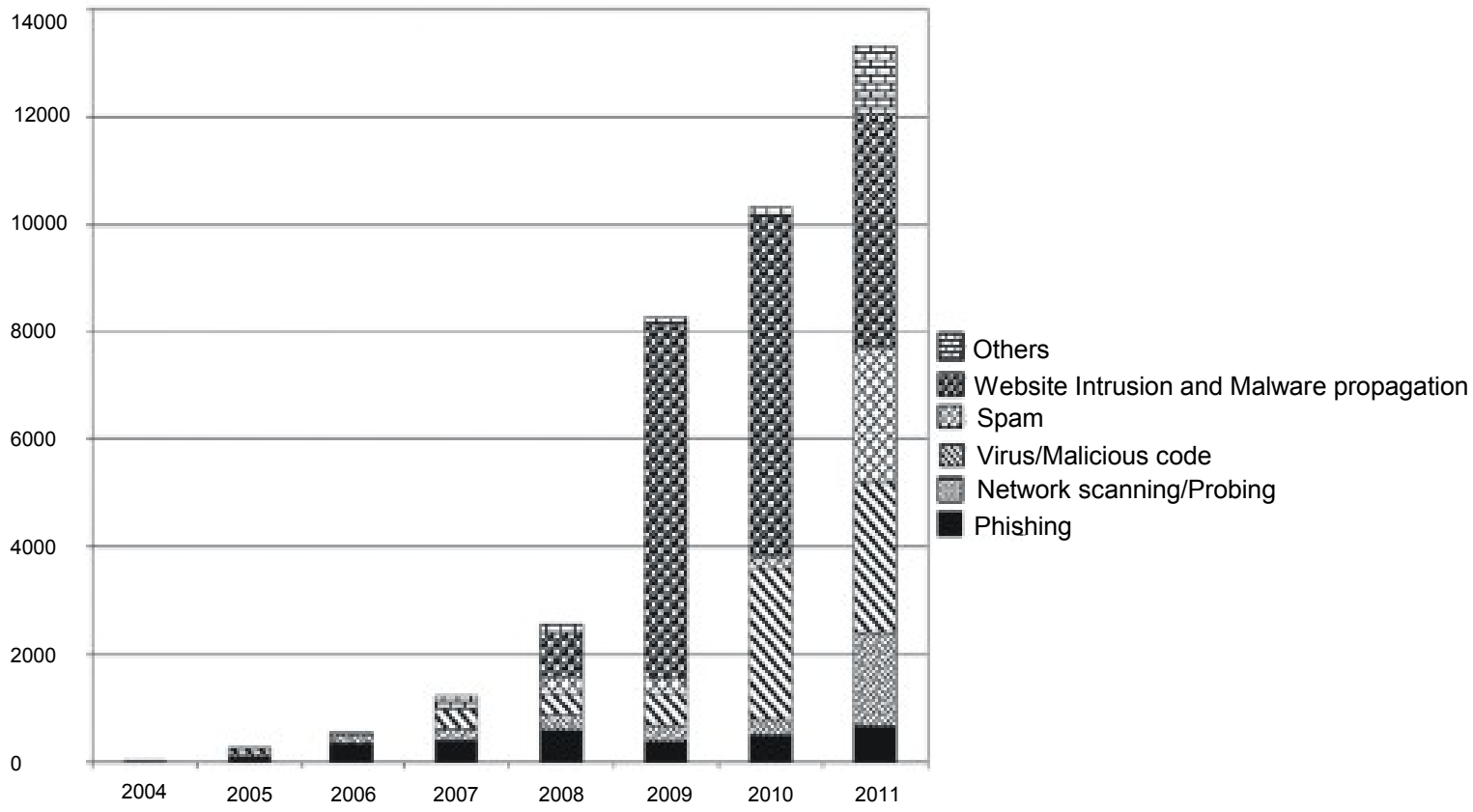
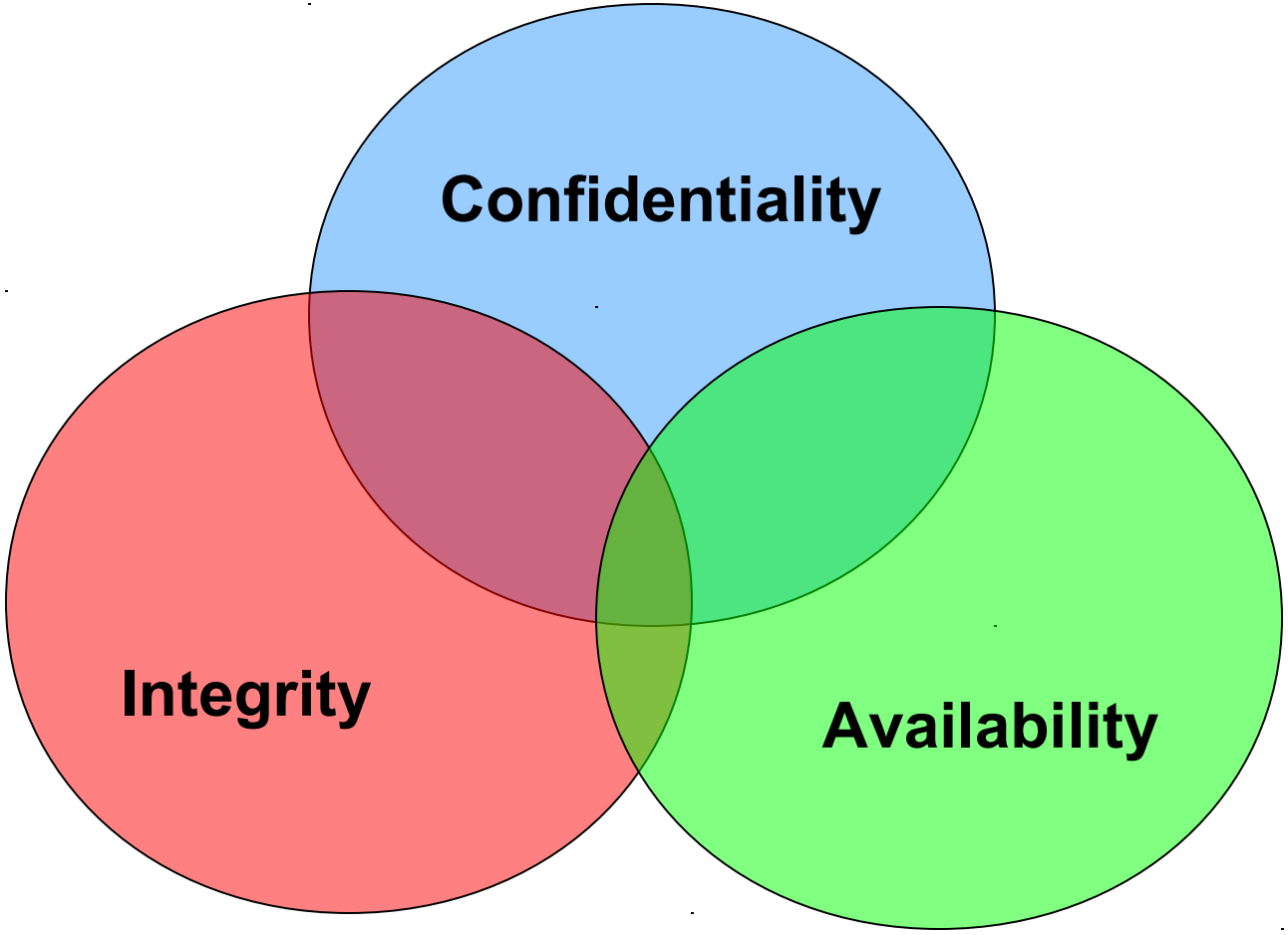
Cyber security Incidents in India

Incidents reported to CERT-in during 2004-2011

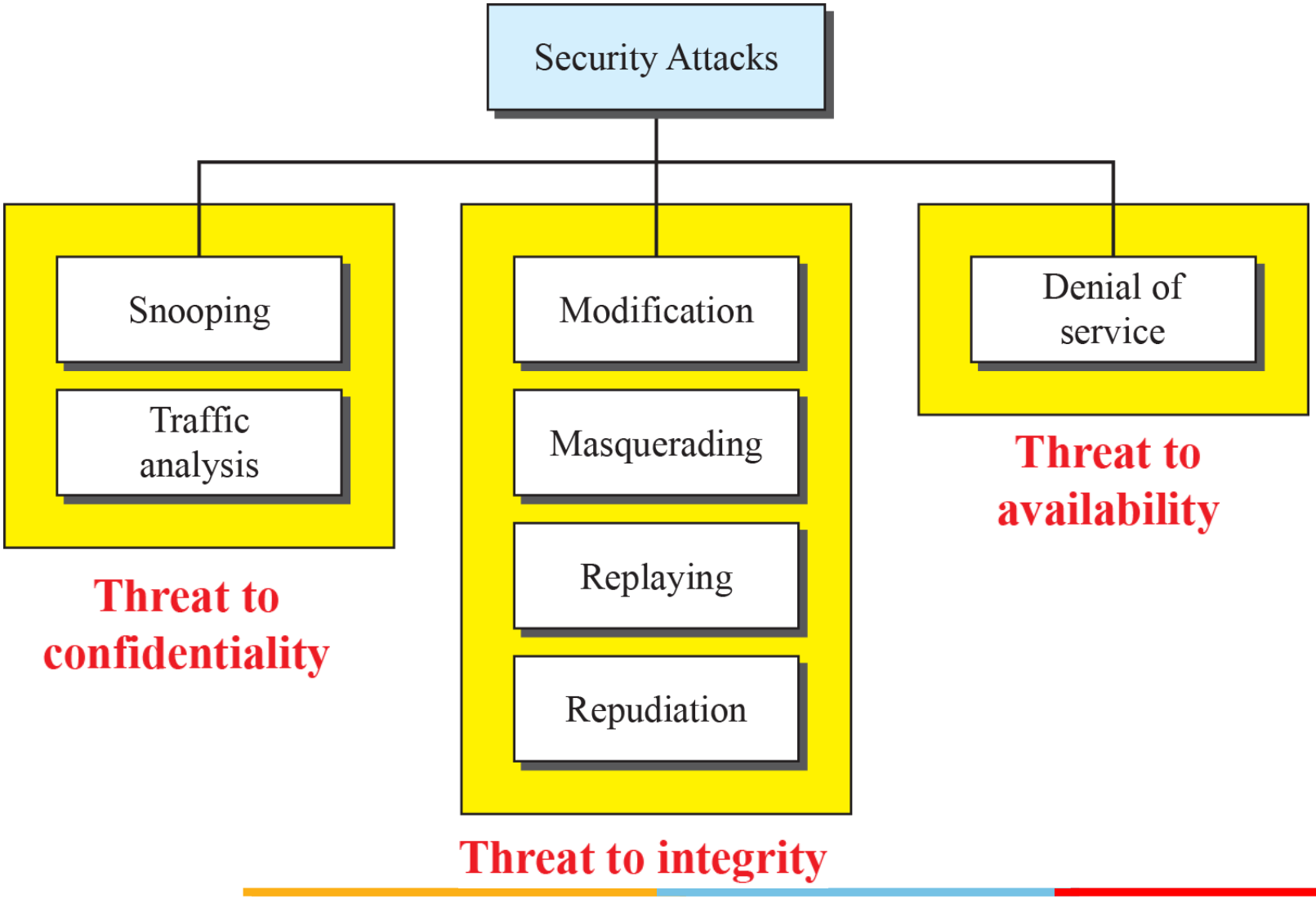


Source: Institute for Defense Studies and Analyses task force report, March 2012

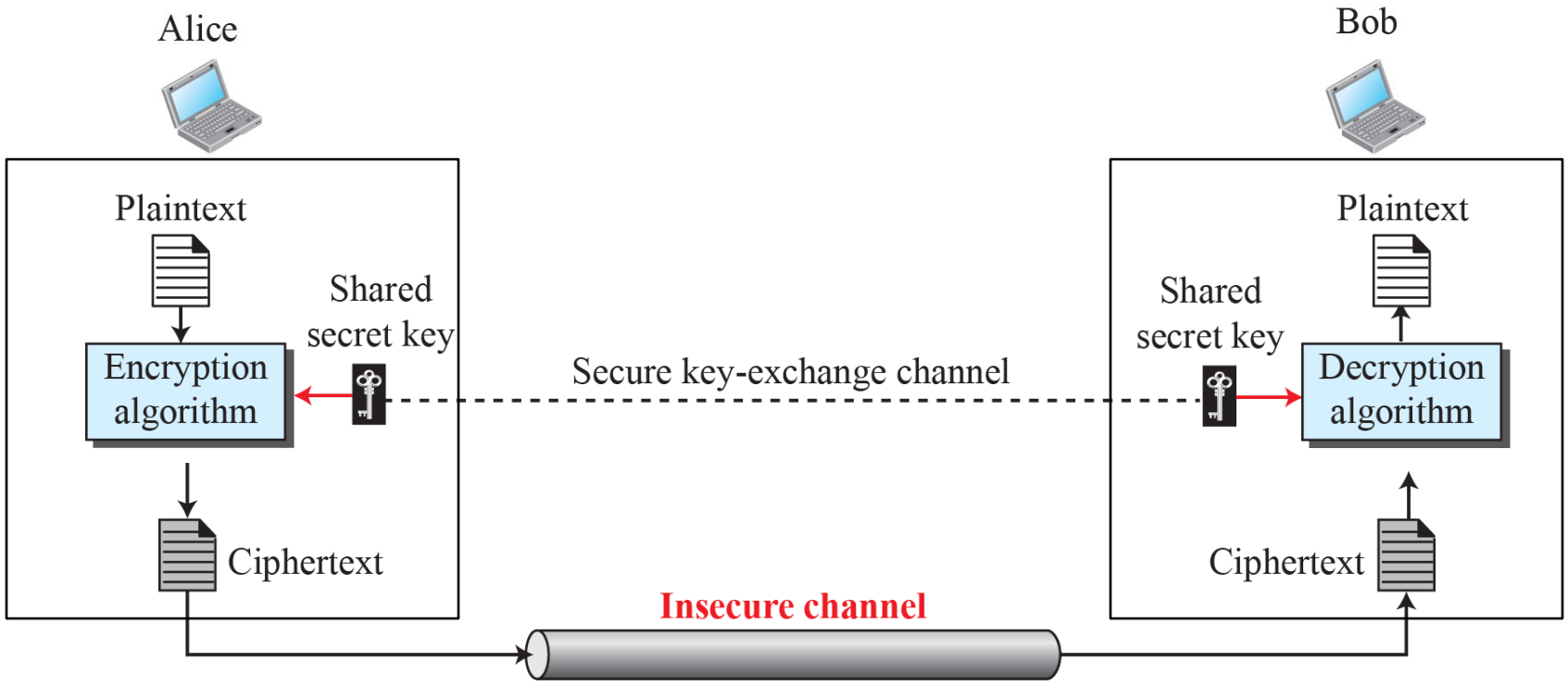
Security Goals



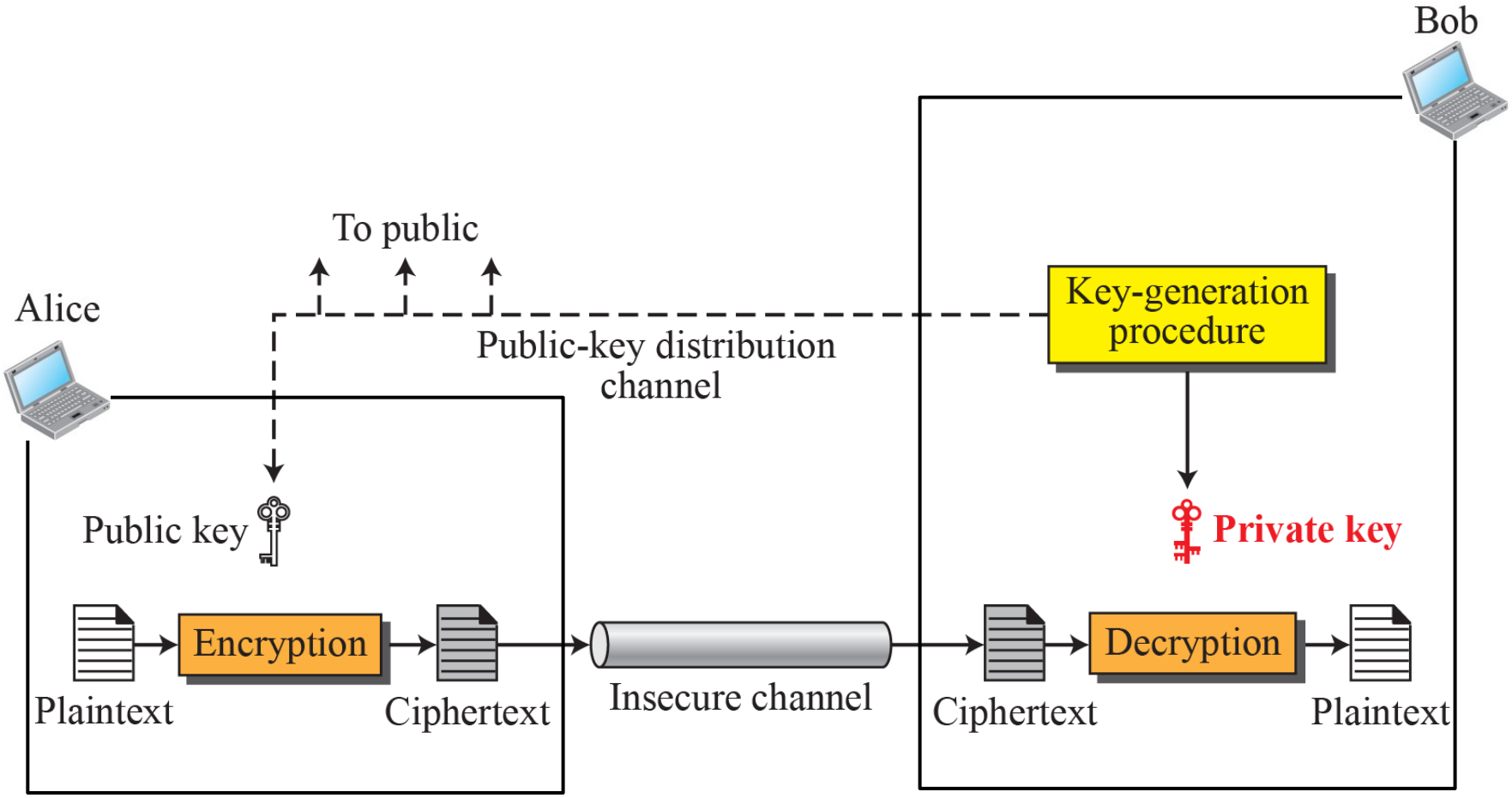
Attack taxonomy



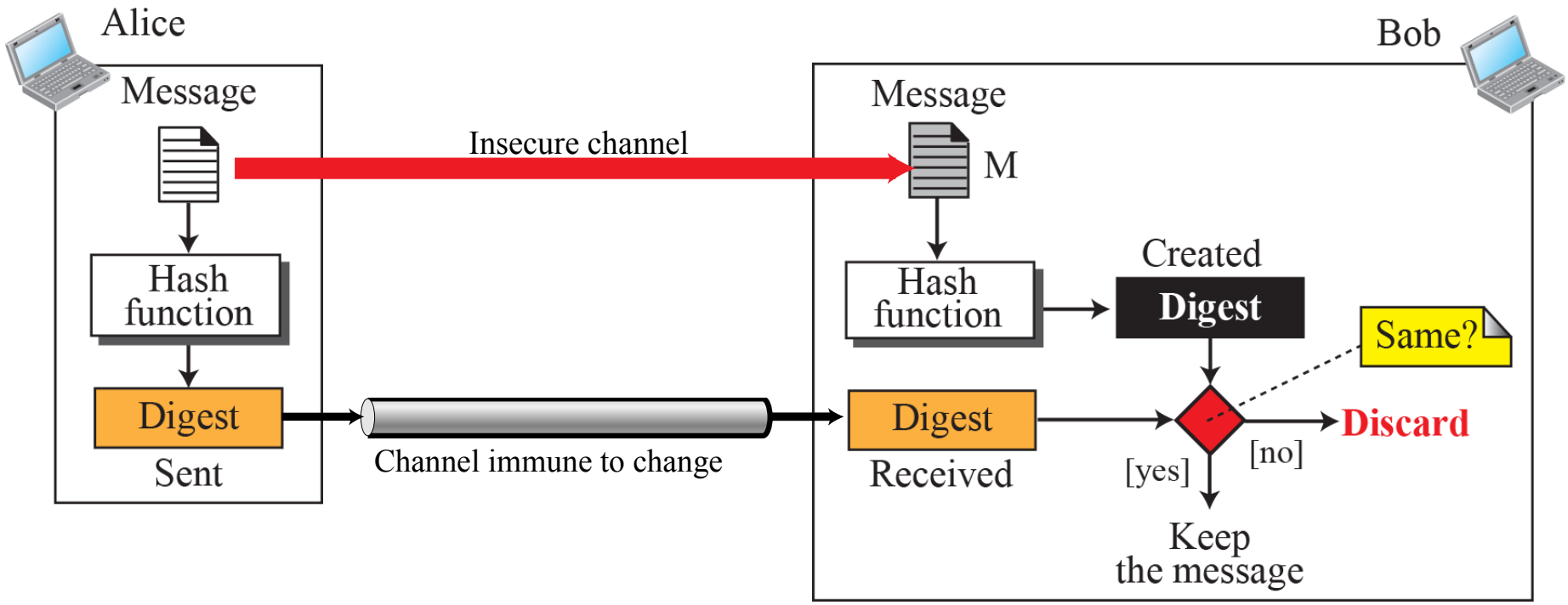
Symmetric Cipher general idea



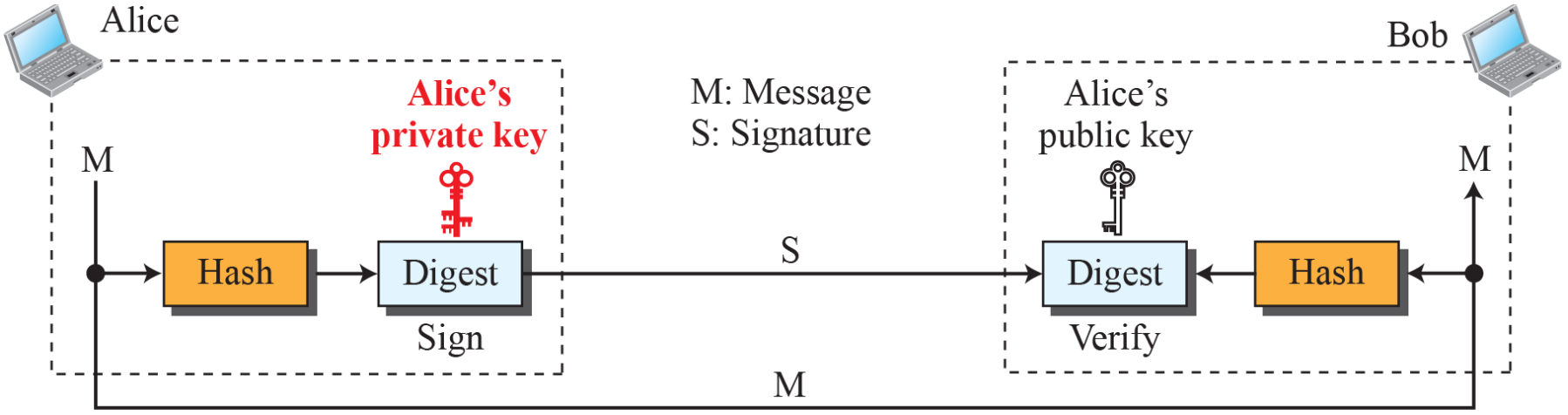
Asymmetric Cipher general idea



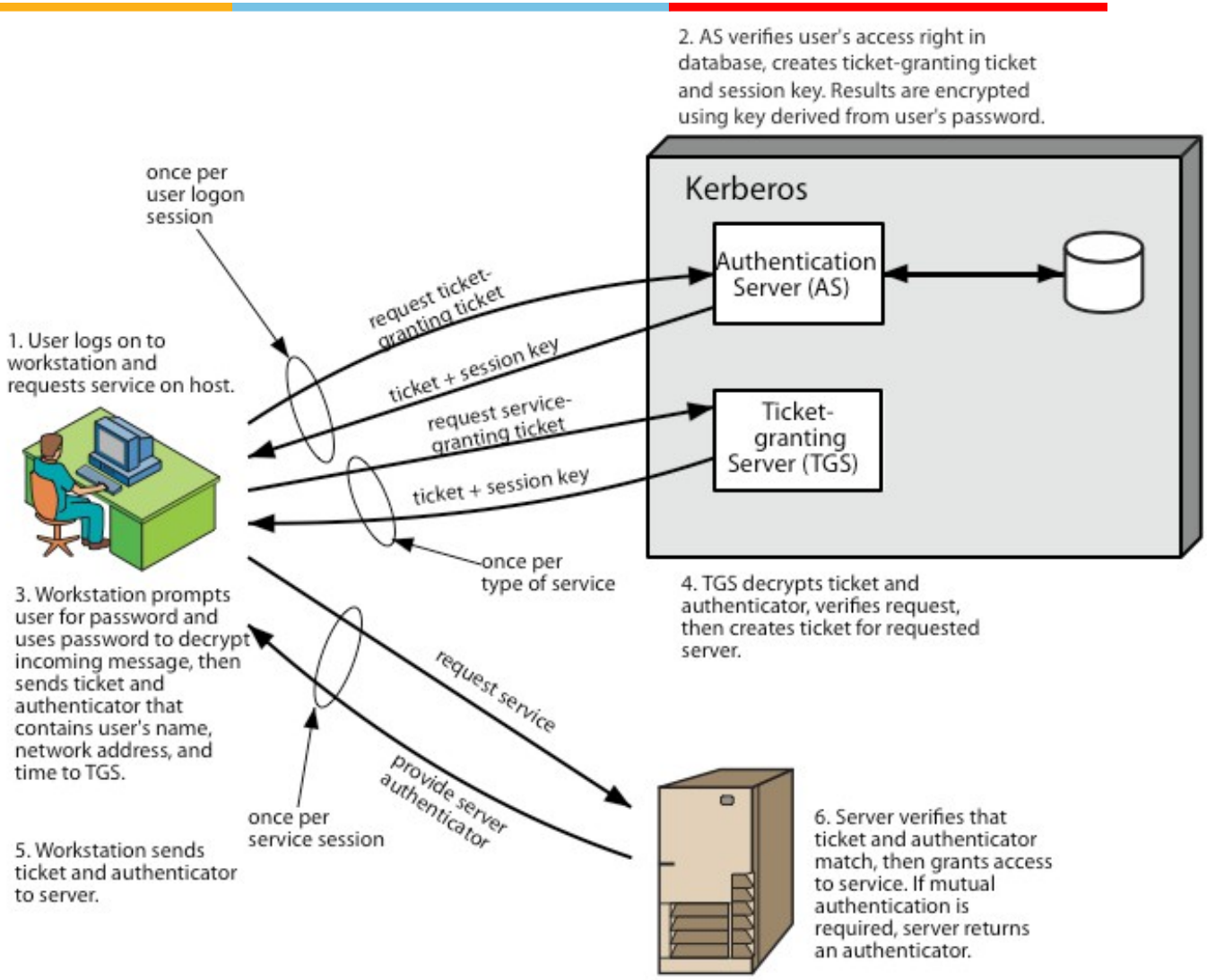
Message Integrity



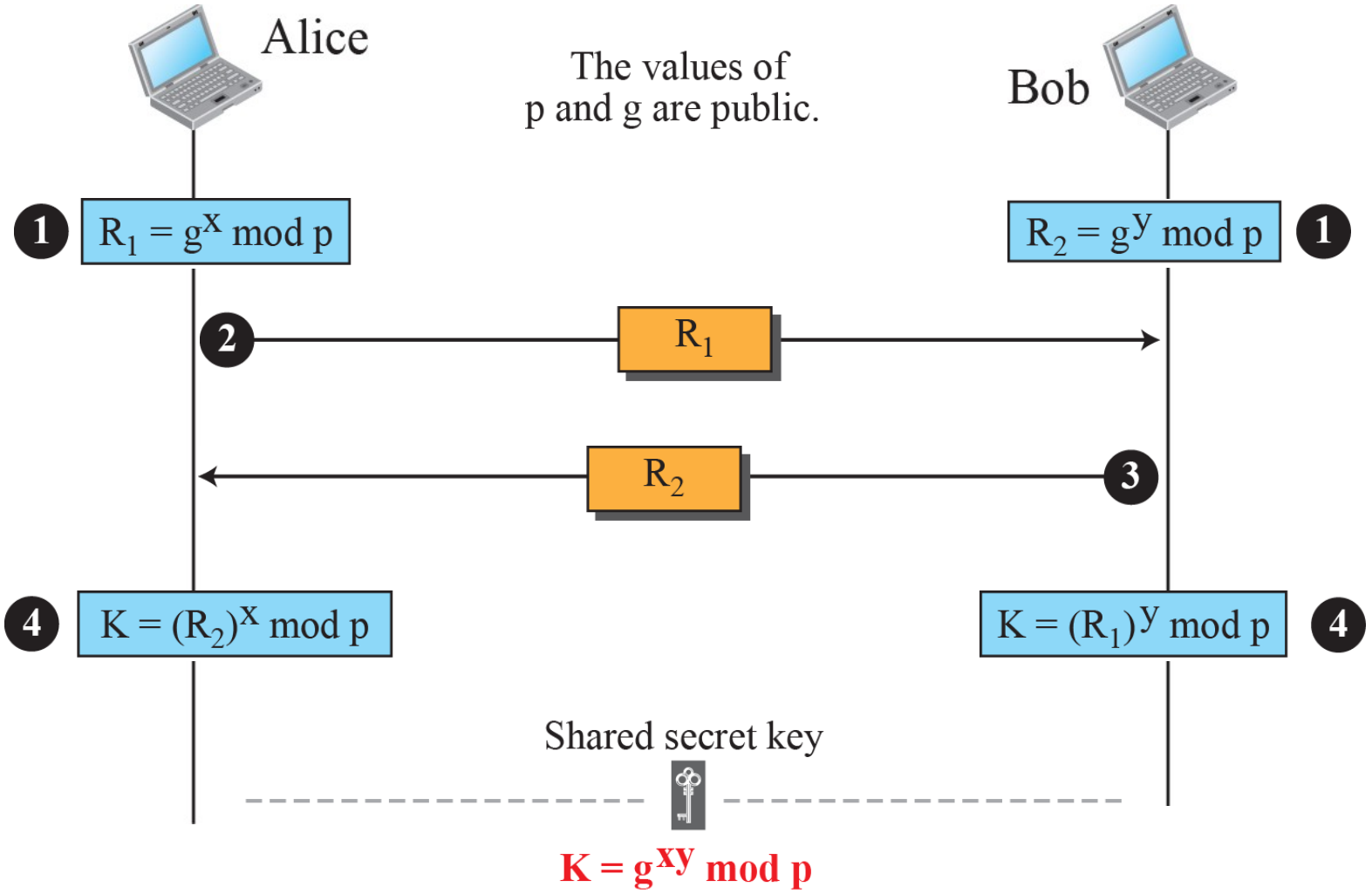
Signing the digest



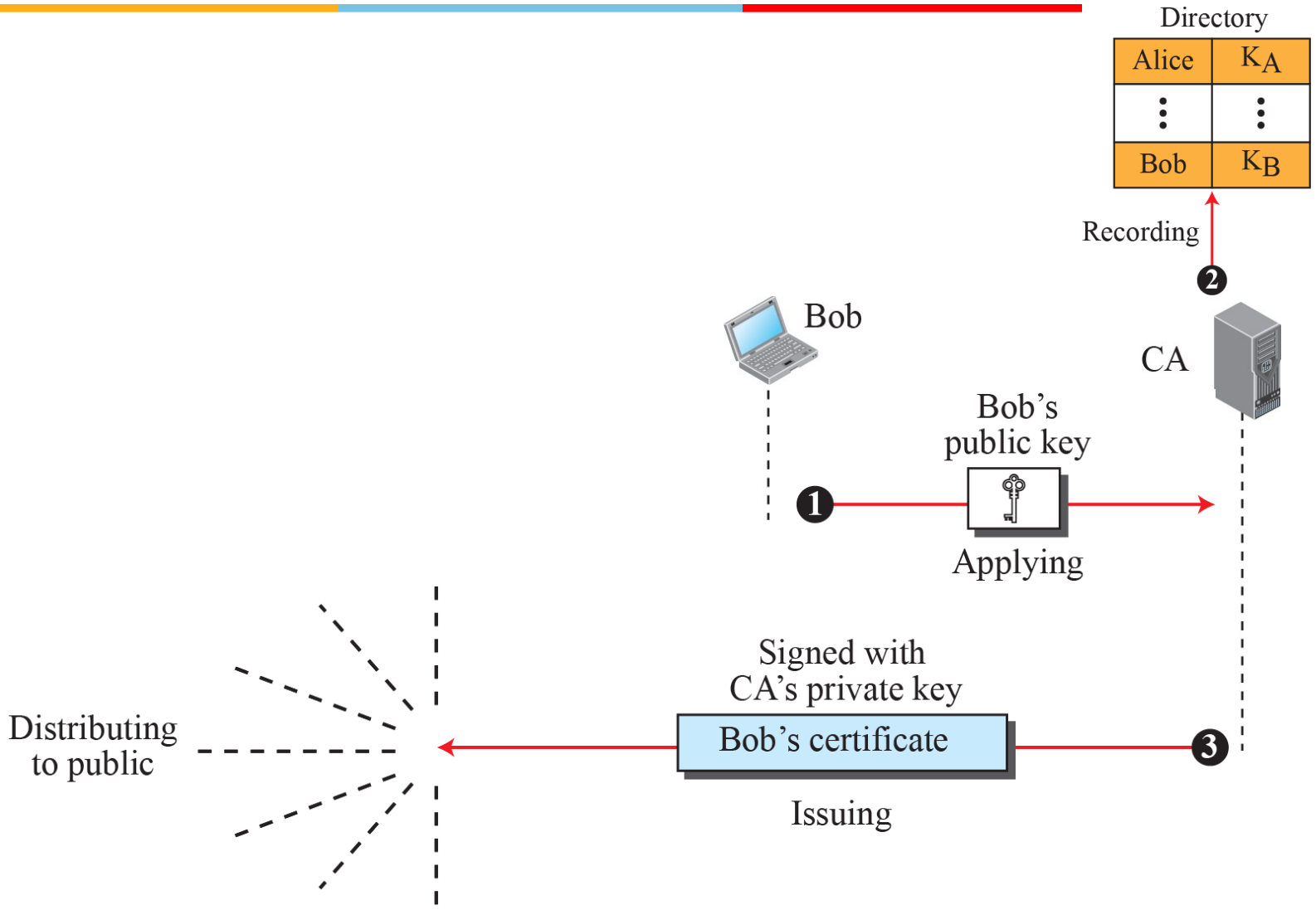
Authentication



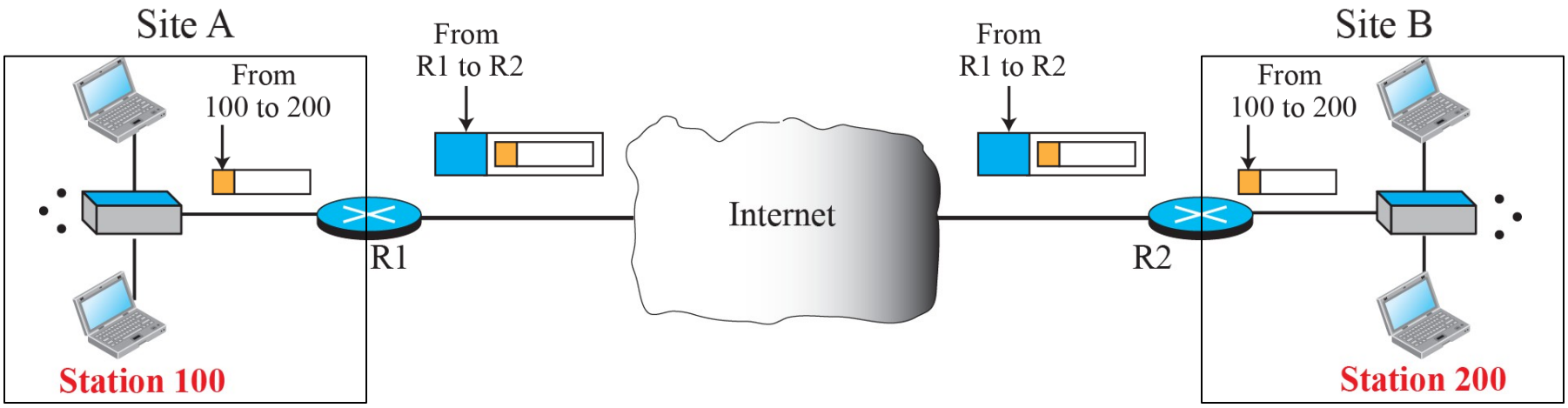
Diffie-Hellman Key Exchange



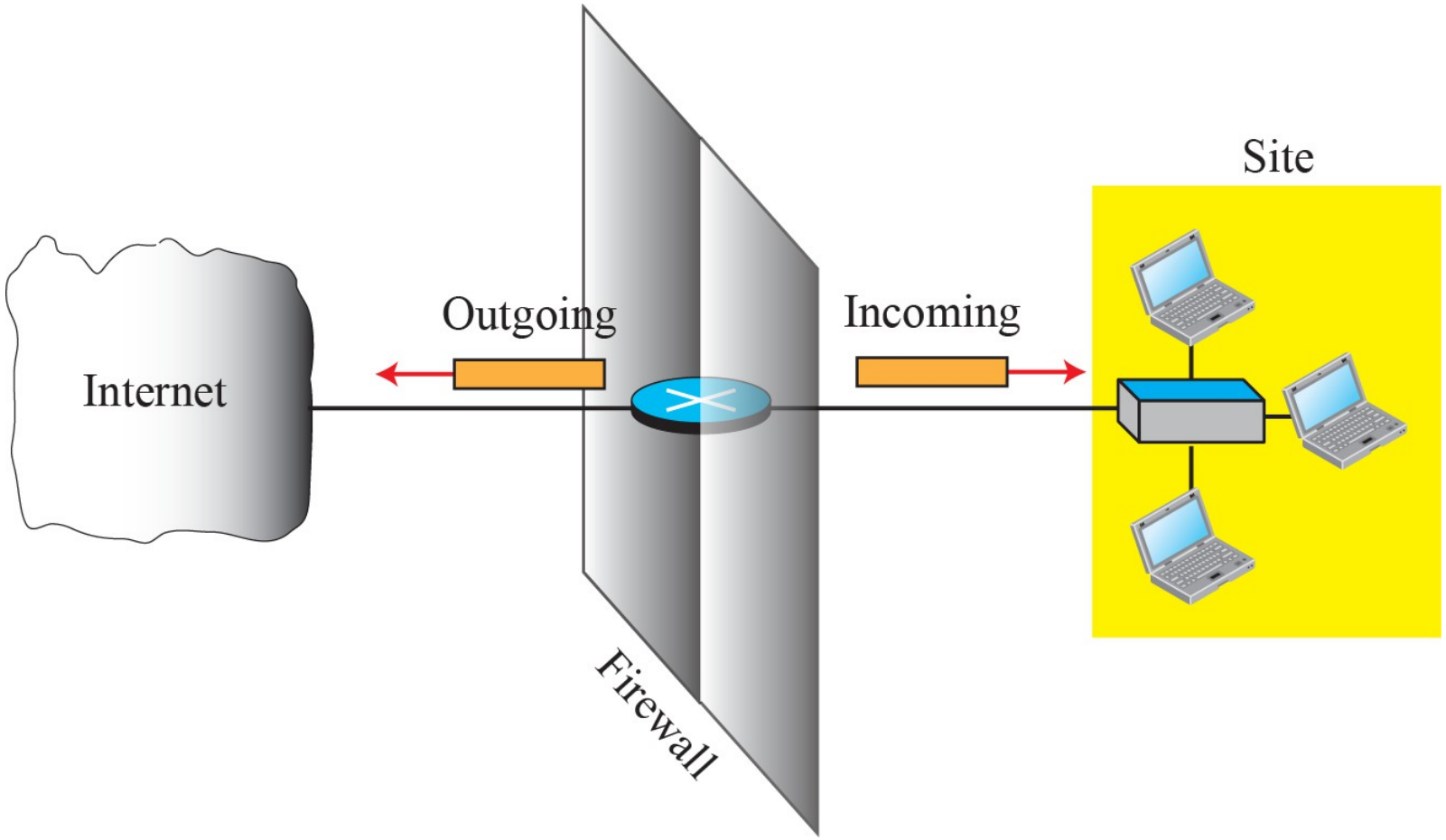
Certification authority



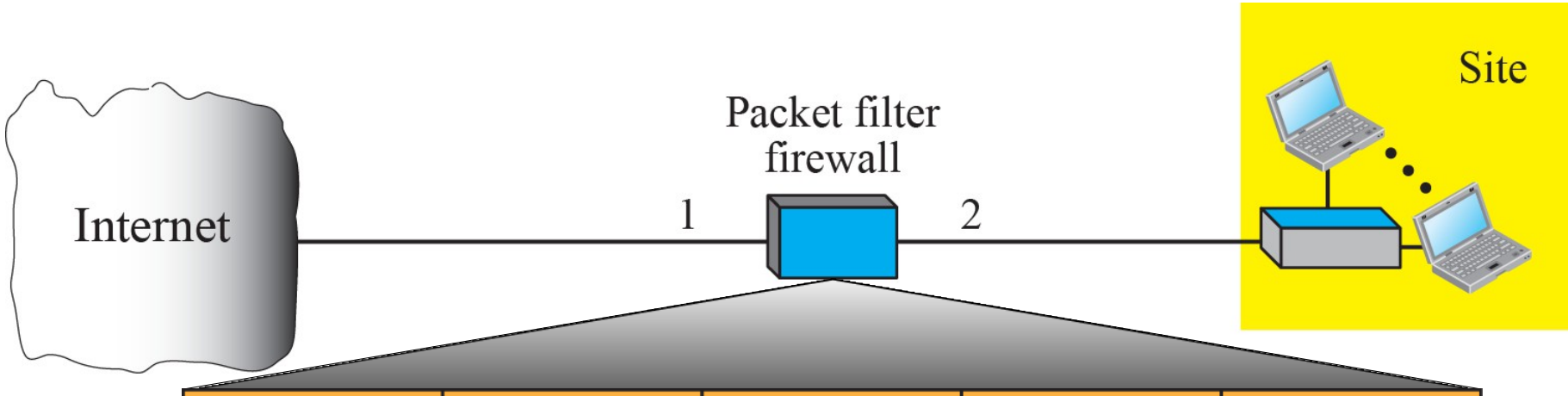
Virtual Private Networks



Firewall

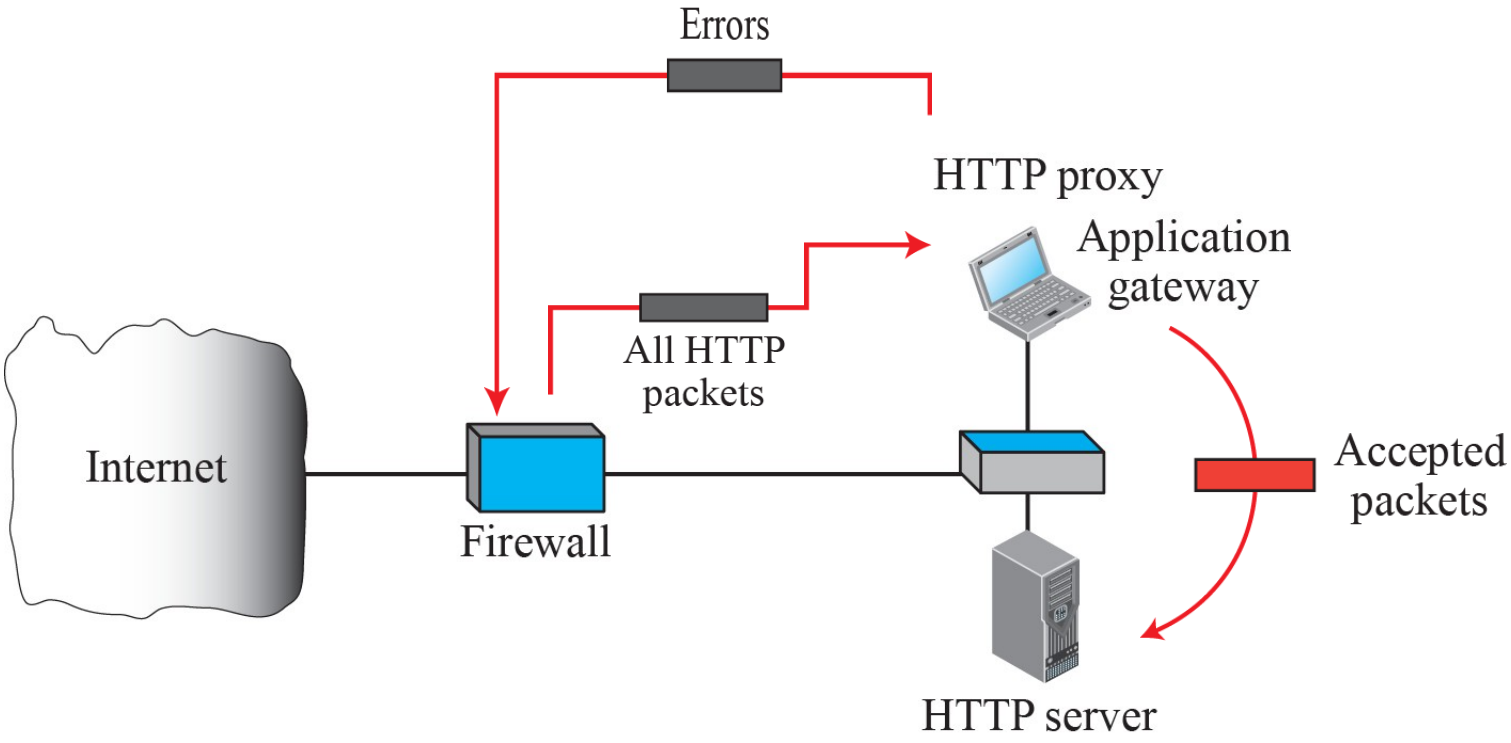


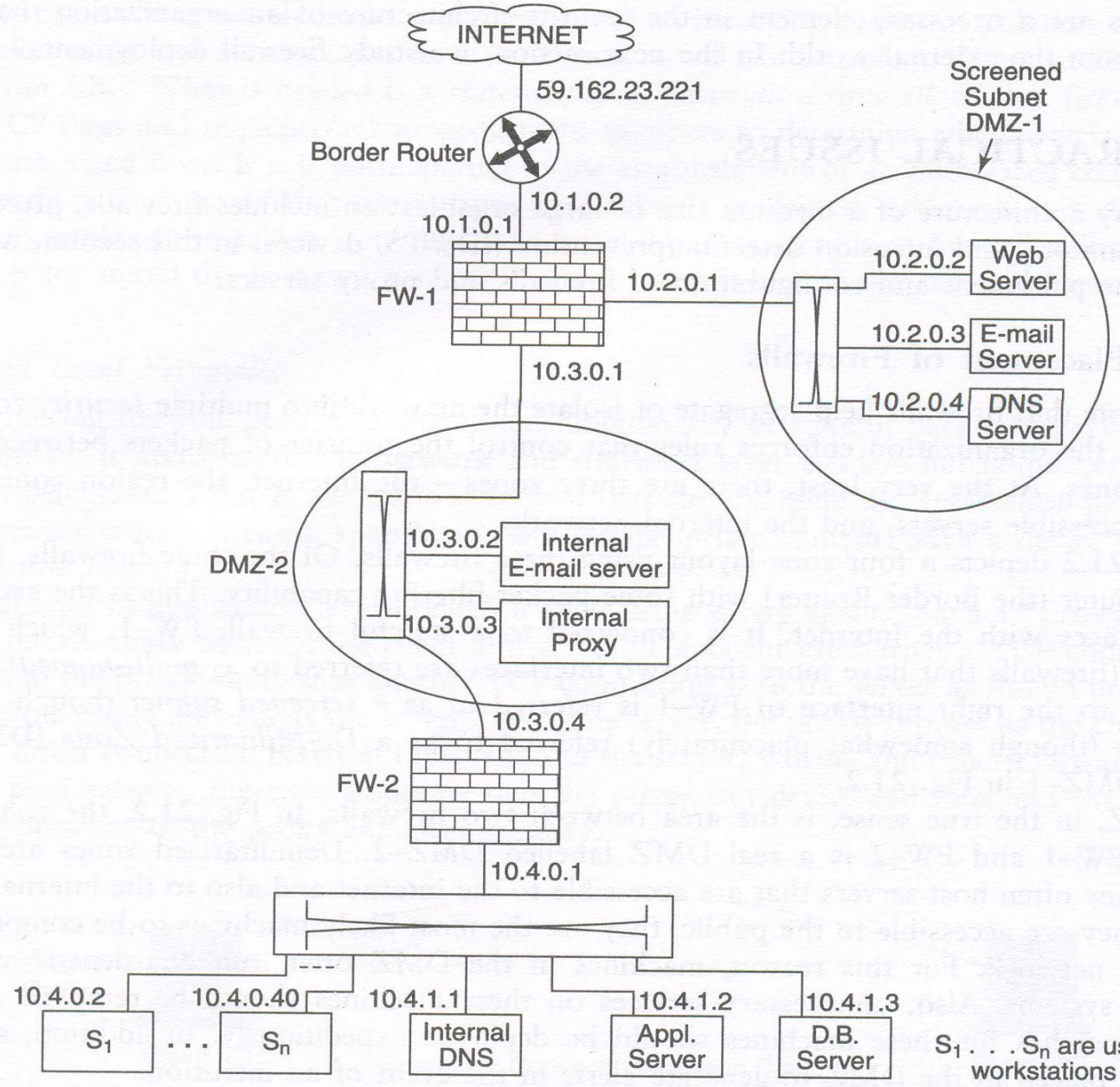
Packet filter Firewall



Interface	Source IP	Source port	Destination IP	Destination port
1	131.34.0.0	*	*	*
1	*	*	*	23
1	*	*	194.78.20.8	*
2	*	*	*	80

Proxy Firewall





Firewall placement within an Organizations' network

Thank you!

Acknowledgements: Slides from Computer Networks by Forouzan, McG