



The Validity of On-Line and Electronic Contracts

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July 28, 2003

Introduction





Introduction

- Writing and Signature Requirements
- Formation
- Integrity
- Authentication
- Nonrepudiation



Roadmap

- Statutes
- Mass Market Licenses
- Digital Signatures



Statutes

- E-Sign
- UETA
- UCITA



E-Sign

Electronic Signatures in Global and National Commerce Act (E-Sign)

- Federal Law
- Signed into Law June 30, 2000
- Became effective October 1, 2000 (March 1, 2001 for record retention)



UETA

Uniform Electronic Transactions Act

- Approved by NCCUSL July 1999
- Adopted in 43 states
- California has adopted a variant



Bottom Line:

- A signature, contract, or other record ... may not be denied legal effect, validity, or enforceability solely because it is in electronic form
- A contract ... may not be denied legal effect, validity, or enforceability solely because an electronic record or electronic signature was used in its formation
- Technology neutral



Electronic Record

A contract or other record created, generated, sent, communicated, received, or stored by electronic means.

E-Sign §106(4), UETA § 2(7)



Electronic Signature

An electronic sound, symbol, or process, attached to or logically associated with a contract or other record and executed or adopted by a person with the intent to sign the record.

(E-Sign 106(5))

Signature Examples

- Name typed in email
- Mouse click on “I accept” button
- Digitized image of signature in email
- Digital signature encryption
- Swiping a “smart card”
- Entering a secret code or PIN #
- Sound--“press 9 on phone to agree”



Other Provisions

- **Optional** (E-Sign 101(b), UETA 5(a))
- **Record Retention Records** (101(d), 12)
- **Electronic Notarization** (101(g), 11)
- **Electronic Agents** (101(h), 14)
- **Transferable Records** (201, 16)
- **Governmental Agencies**



E-Sign Consumer Protection

- Consent Required
- Pre-consent disclosures
- Exemptions (e.g. eviction)
- Integrity (applies to everyone)

www.consumersunion.org/finance/e_sign.htm

Other UETA Provisions

- Party agreement (UETA Section 5)
- Attribution (9)
- Transmission errors (10)
- Evidentiary (13)
- Mailbox rule (15)



Exclusions

- Wills and trusts
- Family law matters
- UCC other than Articles 2 and 2A
- Court documents, orders and notices*
- Notices that must be publicly posted*
- Cancellation of utility services*
- Eviction from primary residence
- Termination of health insurance*
- Product recalls*

*E-Sign



Reverse Preemption

- 102(a)(1) pure UETA states
- 102(a)(2) other statutes consistent with E-Sign that are technology neutral
- California?



International Laws

- UNCITRAL
- EU Directive on Electronic Signatures



Mass Market License

- Standard form license
- Accepted by conduct
 - Opening an envelope
 - Clicking a mouse
 - Installing software




Shrink-Wrap

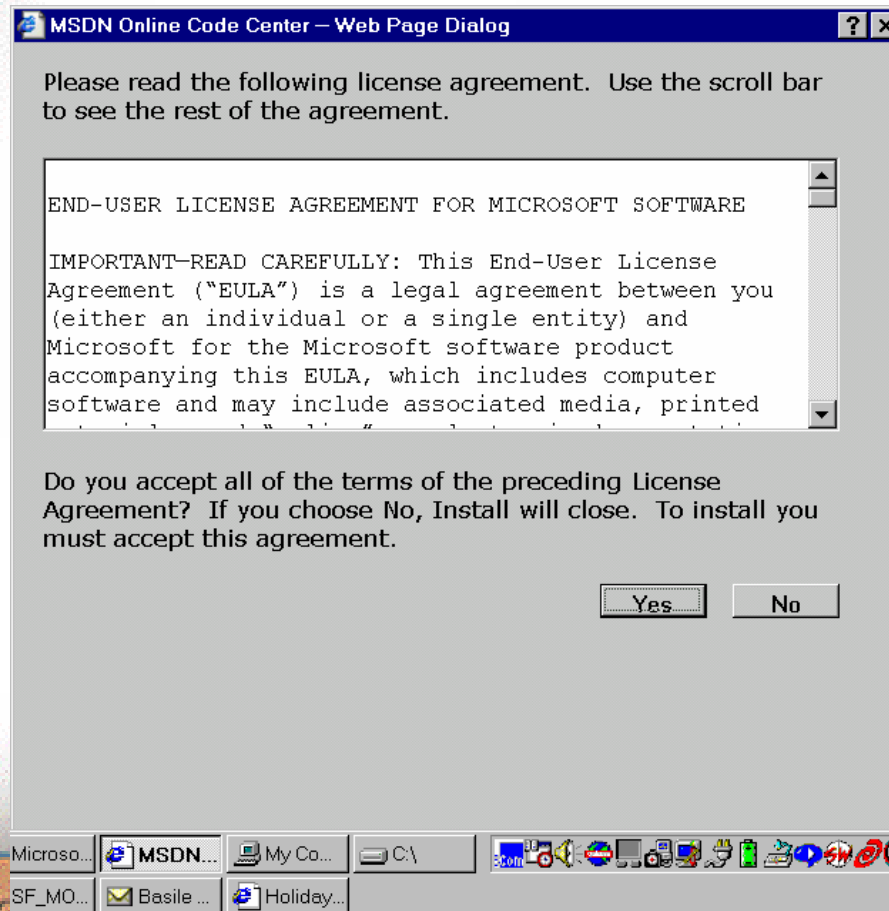
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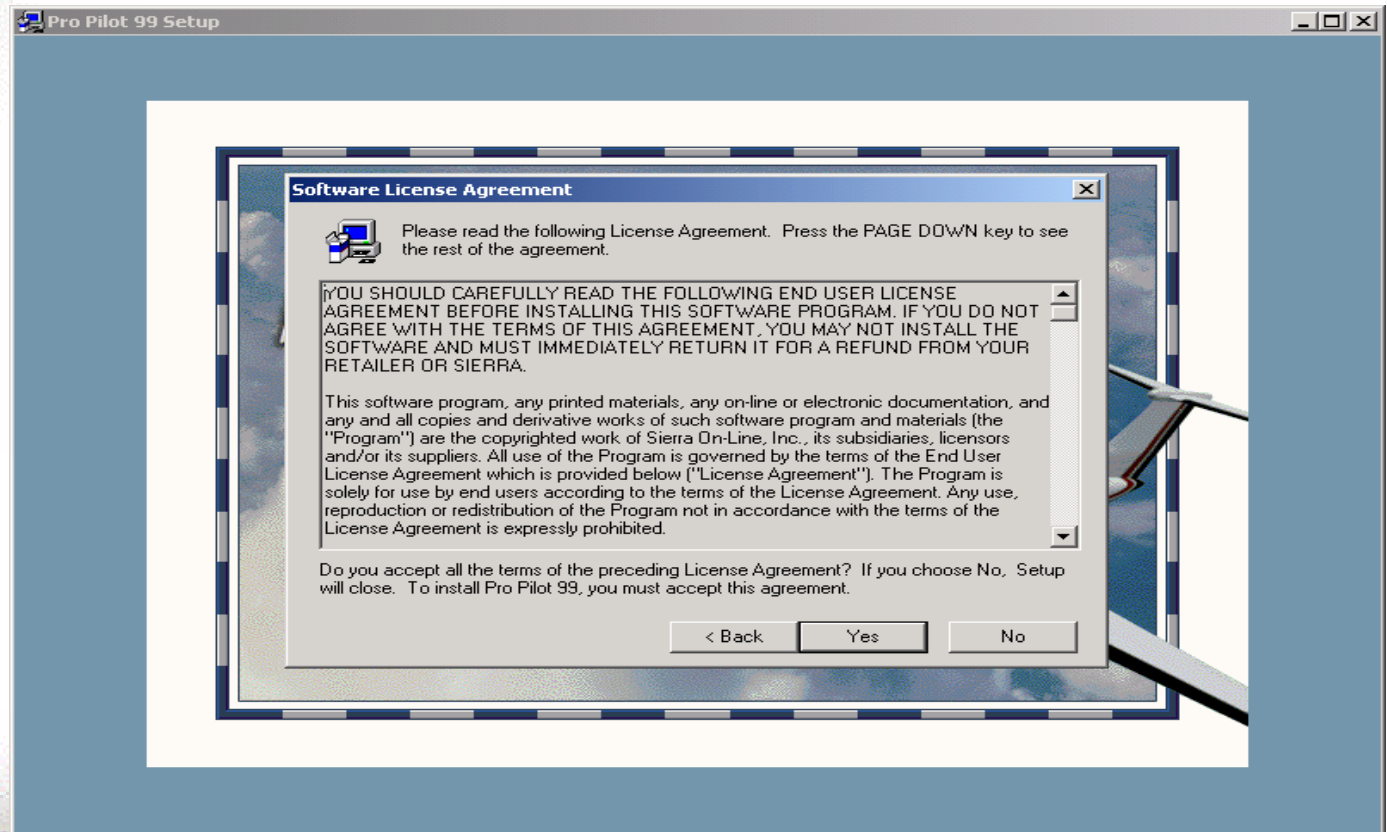
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Boot -Screen



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- Small Business Services**
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ZIP

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Formation

- Notice of terms
- Opportunity to review the terms
- Assent
- Not otherwise unenforceable



Cases Finding Against Enforcement

- **Step-Saver v. Wyse**
912 F.2d 643 (3rd Cir. 1991)
- **Arizona Retail v. TSL**
81 F.Supp. 759 (D.Ariz. 1993)

Cases Enforcing

- ProCD v. Zeidenberg
86 F.3d 1447 (7th Cir. 1996)
- i.Lan Systems v. Netscout
183 F.Supp.2d 328. (D. Mass 2002)



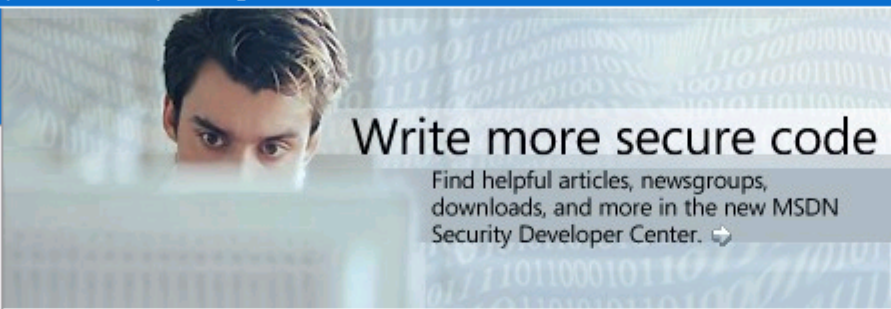
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Last Updated: Tuesday, June 24, 2003 - 2:43 p.m. Pacific Time

Browse-Wrap Cases

- **Pollstar v. Gigmania**
170 F.Supp.2d 974
- **Register.com v. Verio**
126 F.Supp2d 238
- **Specht v. Netscape**
306 F.3d 17 (2d Cir. 2002)
- **Ticketmaster v. Tickets.com**
2003 WL 21397701 (C.D.Cal., Mar 07, 2003)

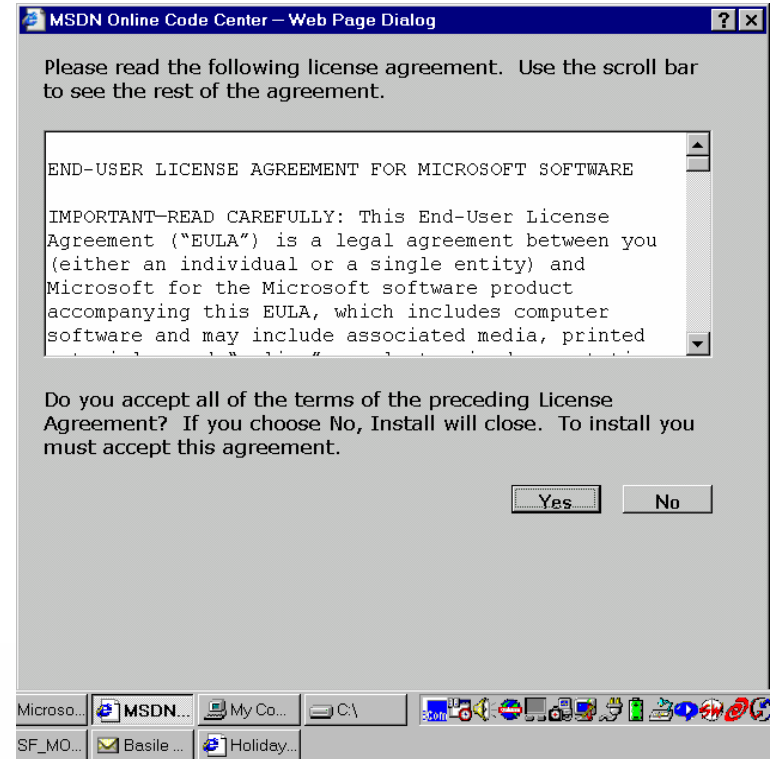


Formation

- Notice of terms
- Opportunity to review the terms
- User must assent
- Not otherwise unenforceable

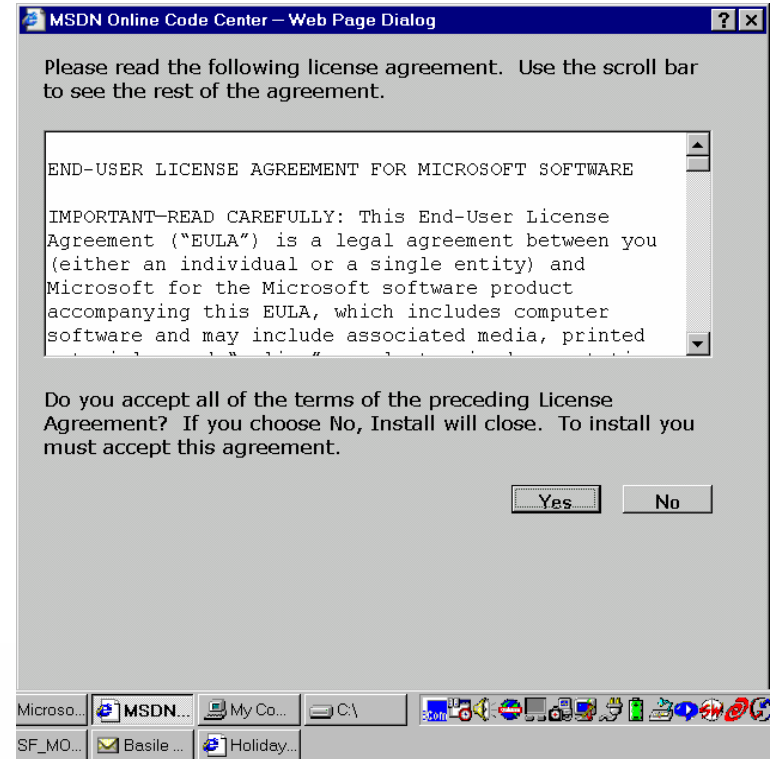
Notice

- Timely
- Adequate
- Conspicuous



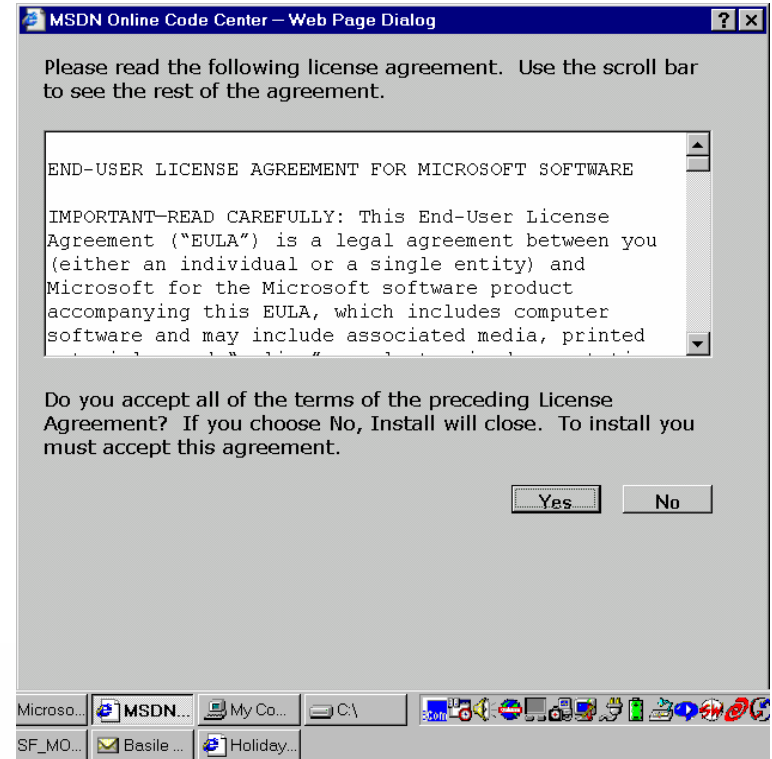
Opportunity to Review

- Easy
- Automatic
- Mandatory
- Allow user to print and save



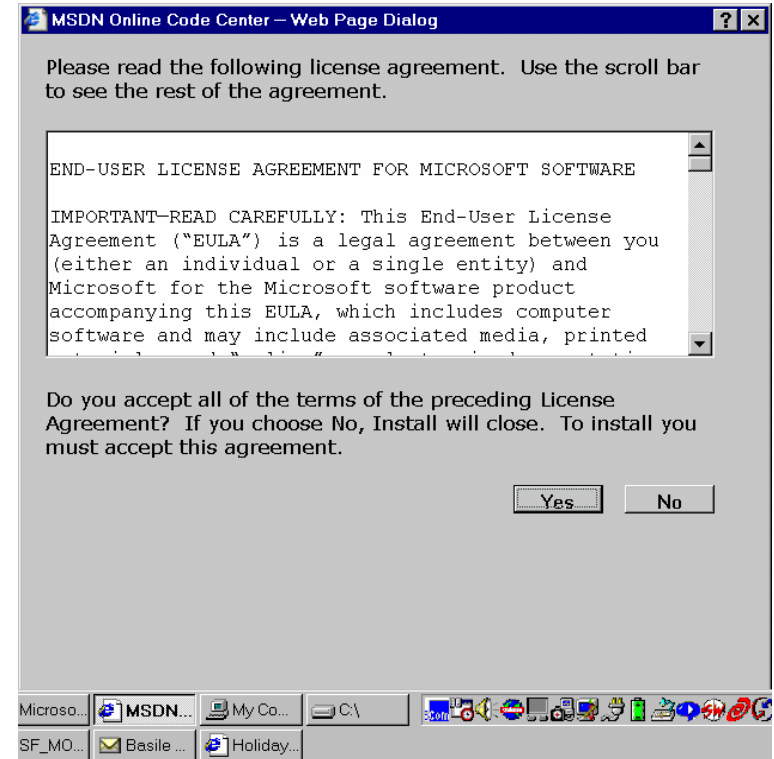
Assent

- Clear mechanism
- Option to decline
- Opportunity to confirm and correct
- Record



Enforceability

- Forum selection
- Benchmarks
- Reverse Engineering





Don't Forget

- Privacy
- UETA/E-Sign



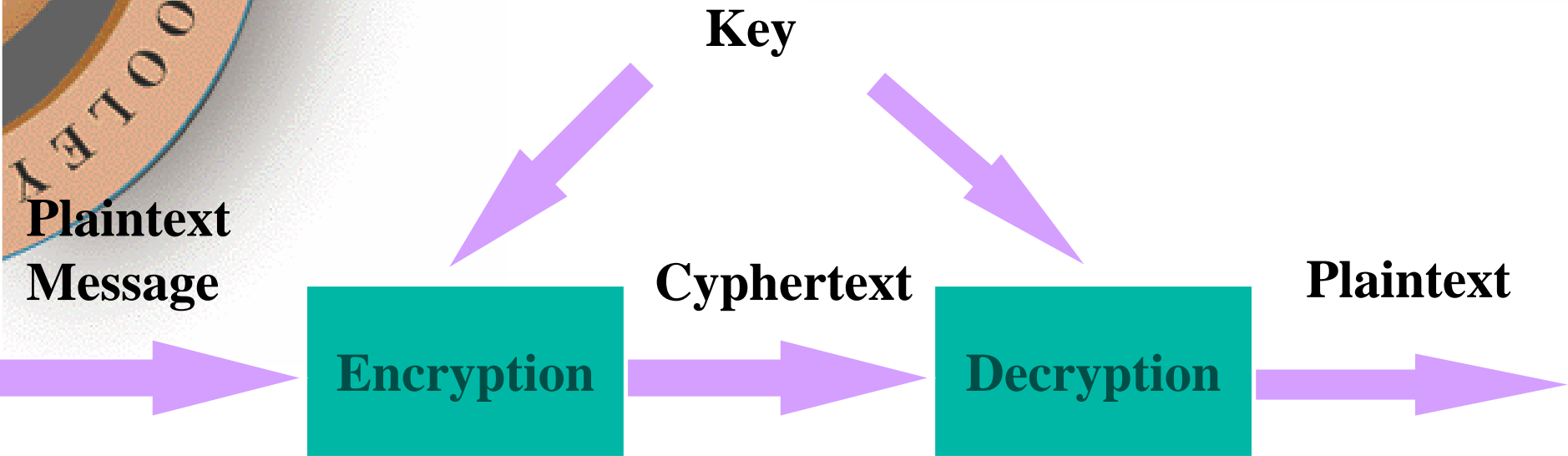
Open Issues

- Authentication
- Integrity
- Repudiation
- Authority
- Capacity

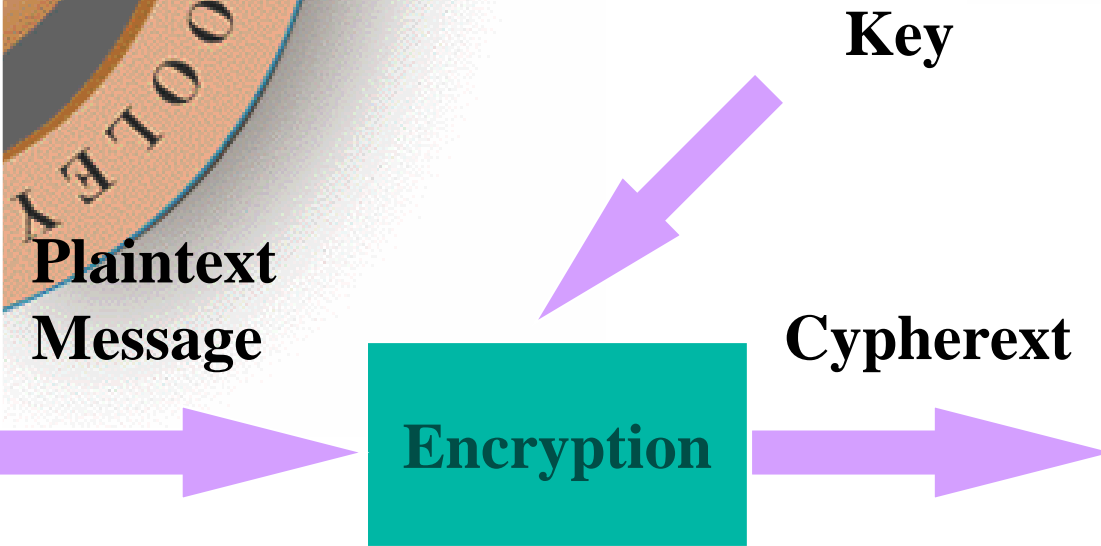
Two Types of Encryption

- Conventional (symmetric) encryption
- Uses a single secret key
- Public-key (asymmetric) encryption
- Uses two keys -- one secret and one public

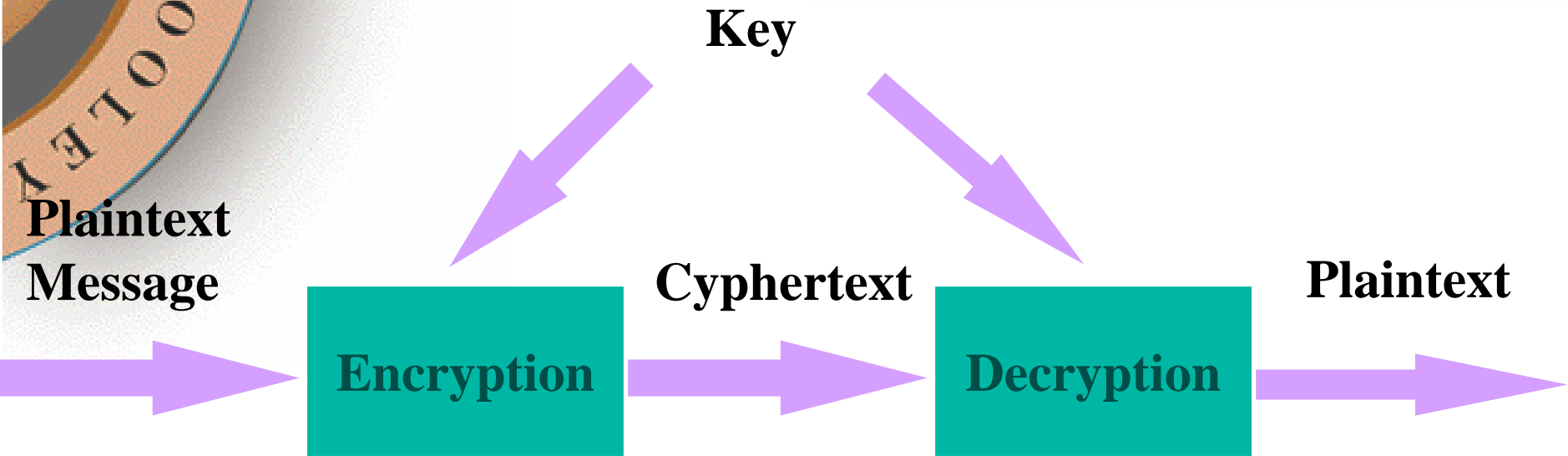
Single Key Encryption



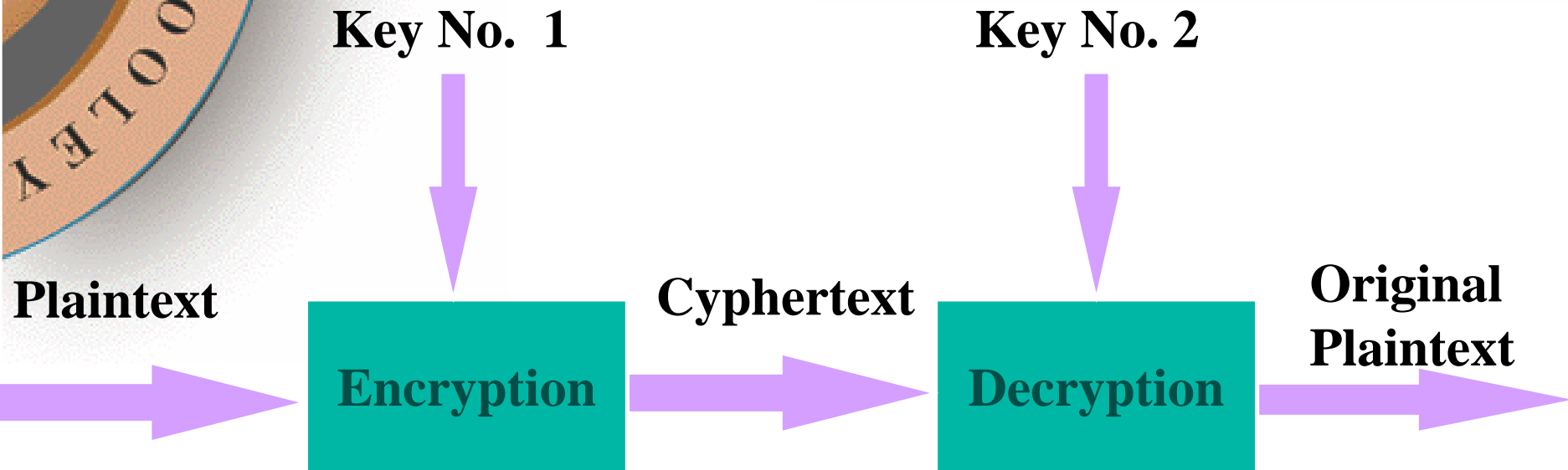
Single Key Encryption



Single Key Encryption



Public Key Encryption and Decryption



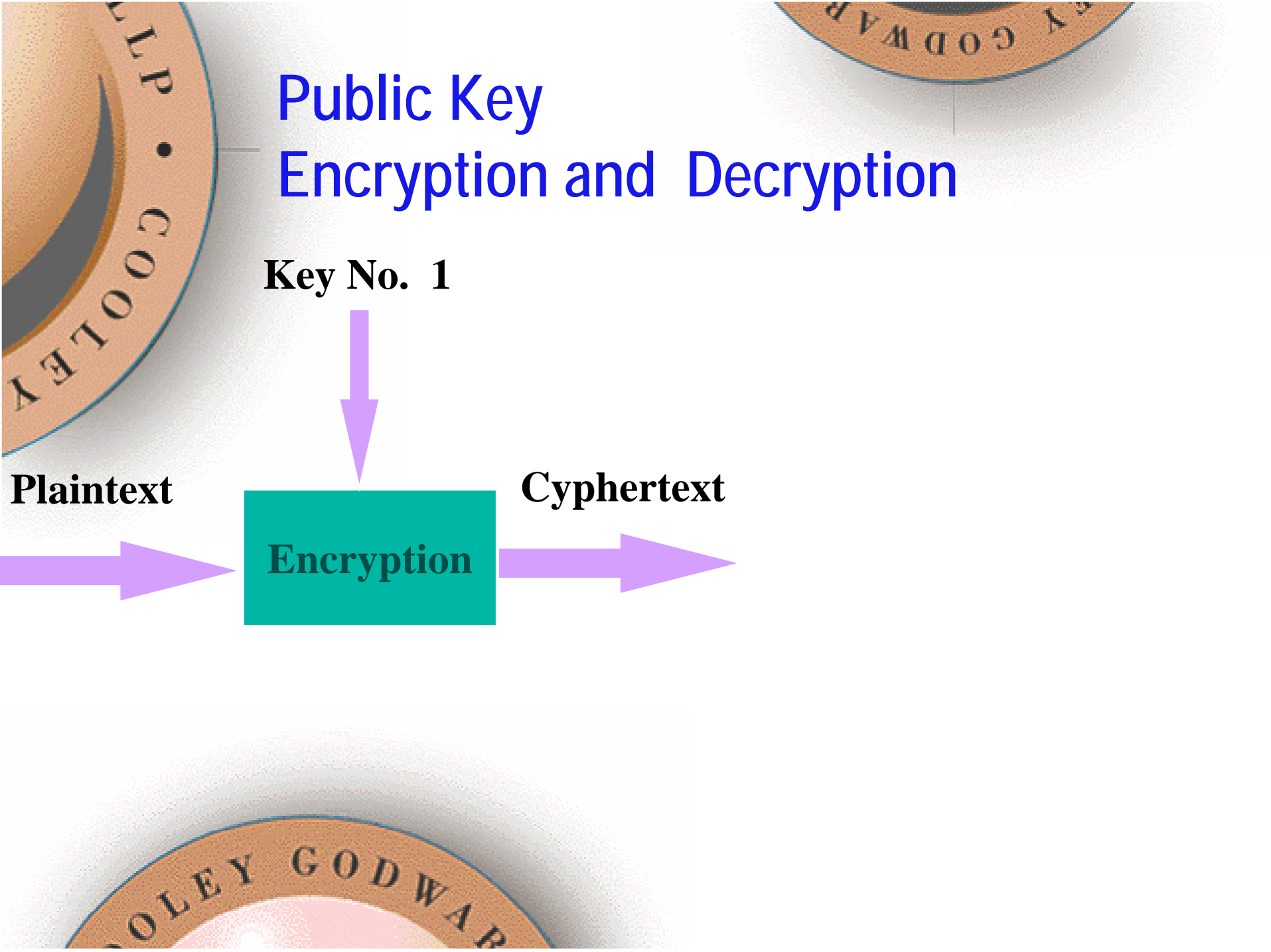
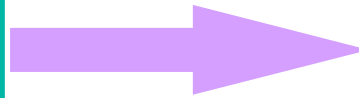
Public Key Encryption and Decryption

Key No. 1

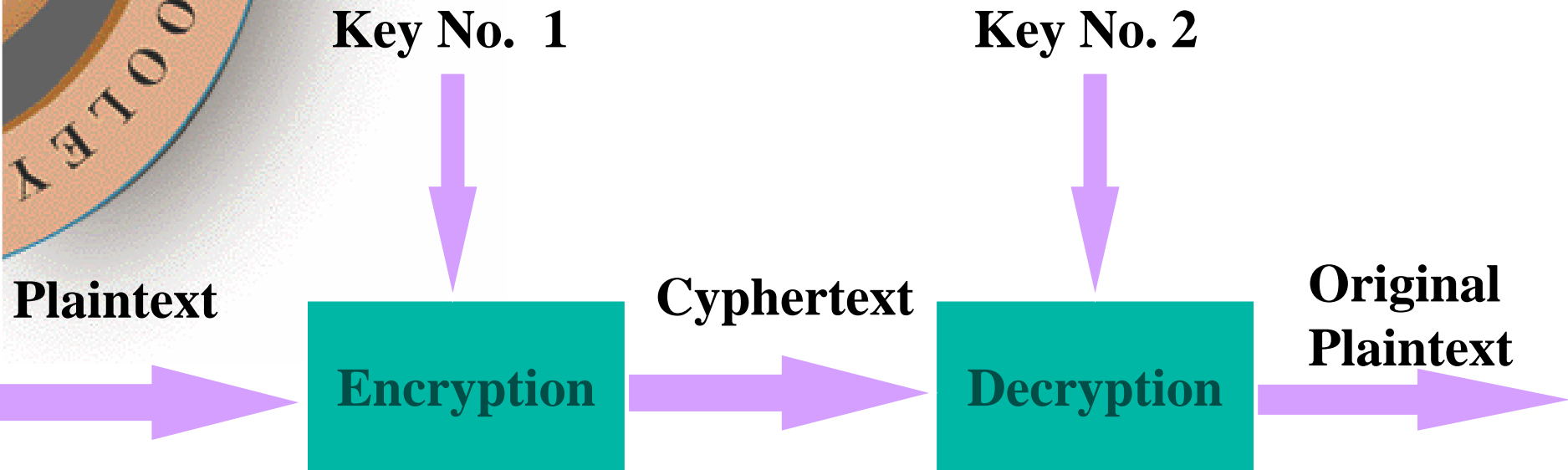
Plaintext



Cyphertext



Public Key Encryption and Decryption



A Digital Signature

-----BEGIN PGP SIGNED MESSAGE-----

We accept your order and will deliver 1,000 widgets at \$2,500 each
on 2/24/96. Payment terms net 30. -- Bob Jones

Robert Jones (jones@acme.com)

Acme Widget Corporation, 44 Main Street, Boston, MA 02131
USA (617) 555-7923

-----BEGIN PGP SIGNATURE-----

Version: 2.6.2

iQCVAwUBMARo7vgyLN8bw6ZVAQF6ygP/fDnuvdAhGIDWs
SMXUIRMuNHYZdZ00cqkDb/Tc2+DuhuEa6GU03AgZY8K9
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WNaSp9L2W4nUuWBdIyIWyoI/2PjjRVNZEtqtSRQnPEpJ2I
Htz9iGovHf0SqhSZKZs=

=+Q3I

-----END PGP SIGNATURE-----



Certification Authority

- Trusted third party
- Associates signer with the key pair used to create the digital signature
- Issues a Certificate to do this
- Certificates published in a repository



Questions?

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