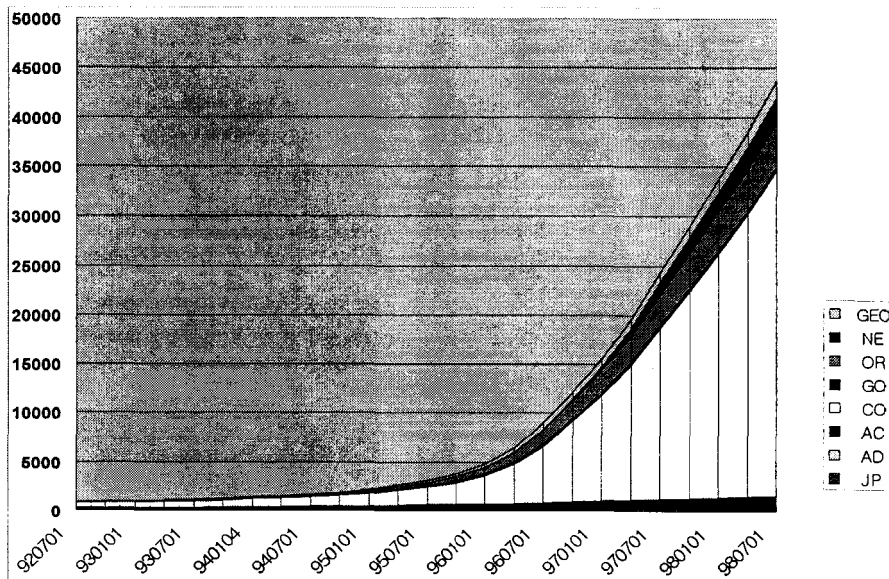# The Achievement
and
The Prospect
of
Japan CALS/EC

NAKANISHI, Hideo
Director General, JECALS/JIPDEC

Numbers of allocated Domains on the Internet (Japan)

Legend: GEO, NE, OR, GO, CO, AC, AD, JP

Electronic Commerce:

Supports entire range of activities
  -Product design,
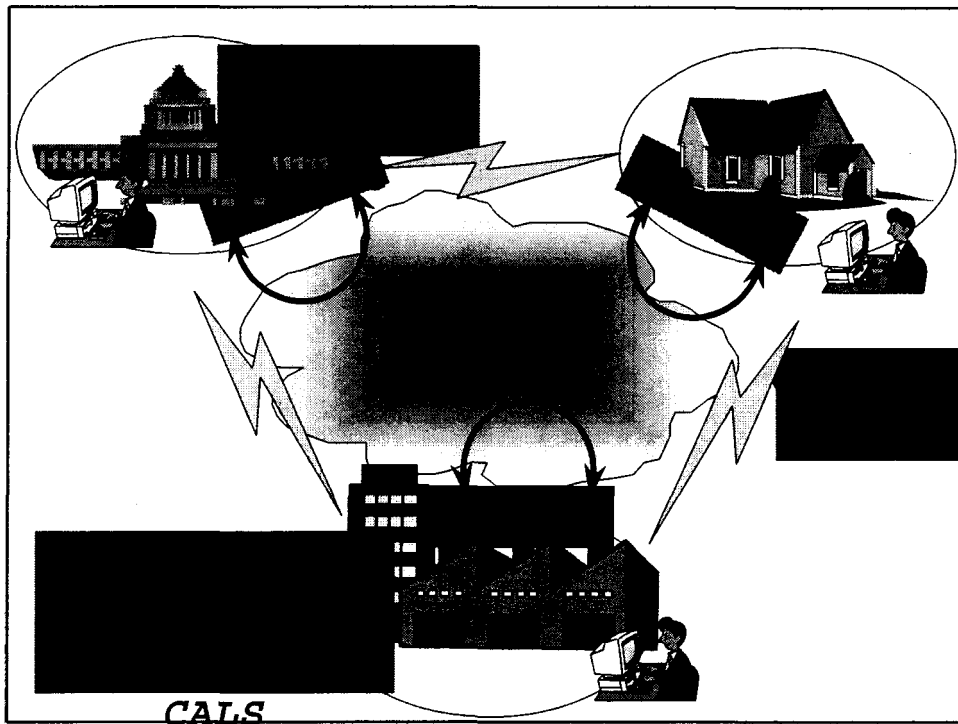   *Manufacturing,*
   Advertising,
   Commercial transactions
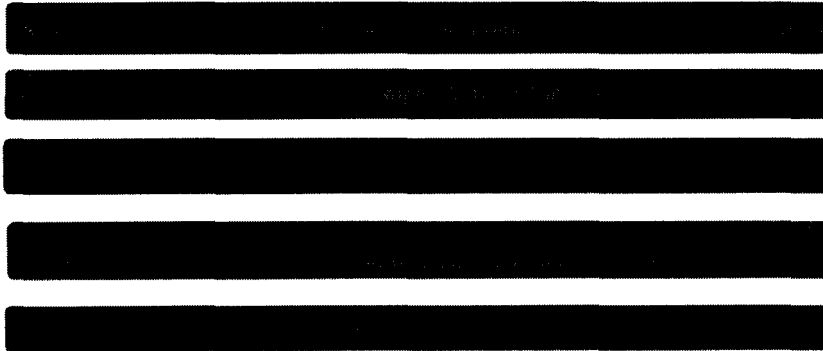   *Settlement of accounts -*
using a variety of kinds of
       computer networks.

CALS

The Basic Guidelines on the Promotion of an
Advanced Information and Telecommunication Society   Feb., 1995

■ **An Advanced Information and Telecommunication Society:**

A new social and economic system characterized by holistic harmony among lifestyle, culture, industry, economy, and nature/environment, and by the free sharing, distribution, and creation of knowledge and information, recognized as the fruits of productive human intellectual activity.

- The information revolution,
  equivalent for the bourgeois revolution and the industrial revolution.
- Promoting balanced development throughout the nation
- Offering lifestyles for the people in which they experience a true sense of abundance, freedom, and comfort.

■ **Action Principles**

1) Ensure that all may receive with confidence the benefits of advanced information and telecommunication.
2) Ensure sufficient consideration for those in socially weaker position.
3) Contribute to the formation of vital and active local communities
4) Secure a free flow of information
5) Prepare a comprehensive information and telecommunication infrastructure
6) Flexibly reevaluate all systems
7) Achieve a global, advanced information and telecommunication society

Concept:
Improve services to the people and the quality of administrative operations

Goal:
Achieve advanced, computerized "electronic government"
in the early 21ˢᵗ century

Target field:
All national administrative tasks
(in coordination with local public entities and special corporations)

Plan Period:
Five years from 1998 to 2002

Framework for Promotion Agenda

1) **Computerize all contacts between the government and the public**
   (improve government services)

2) **Promote computerization of internal government tasks**
   (simplification, rationalization of government)

3) **Prepare infrastructure required to promote computerization**
   throughout the government

Advanced Information And Telecommunications Society Promotion Headquarters
June 1998

PRINCIPLES
1) The private sector must take the lead.
2) Adjustment of environment by the Government
3) Actively participate in discussions regarding
   international harmonization and global standards.

ISSUES
Electronic Authentication, Protection of Privacy, Illegal and Harmful Contents, Consumer Protection,
Security and Measures against Crimes, Roles on Commerce in General, Electronic Payments / Electronic Money
Intellectual Property Rights, Domain Name System, Taxes, Tariffs

GOVERNMENT ROLE IN PROMOTING ELECTRONIC COMMERCE
1) Development of a comprehensive infrastructure
2) Improvement of user interfaces, Increase education and training of computer literacy
3) Take the lead in improving on-line public administrative services

Future Tasks
1) Immediate enforcement of
   "The Action Plan for Economic Structural Reform" (May., 1997)
2) Integrated Action among Ministries and Agencies
3) Review of "The Basic Guidelines on the Promotion of
   an Advanced Information and Telecommunication Society" (Feb., 1995)

"Action Plan for
Economic Structural Reform and Inventiveness"

(May, 1997 Cabinet)

Create new business

Fields: Medicine/health care, lifestyle/culture, information/communication,
new manufacturing tech., distribution, environment, business support, marine,
biotech, urban environment, air and space, new energy/energy conservation,
human resources, internationalization, housing (total 15 fields)

Horizontal Environment Preparation

Funds, Human resources, Technology, and

Advanced Information and Telecommunications

Positioned as a take-off period for the advanced information and
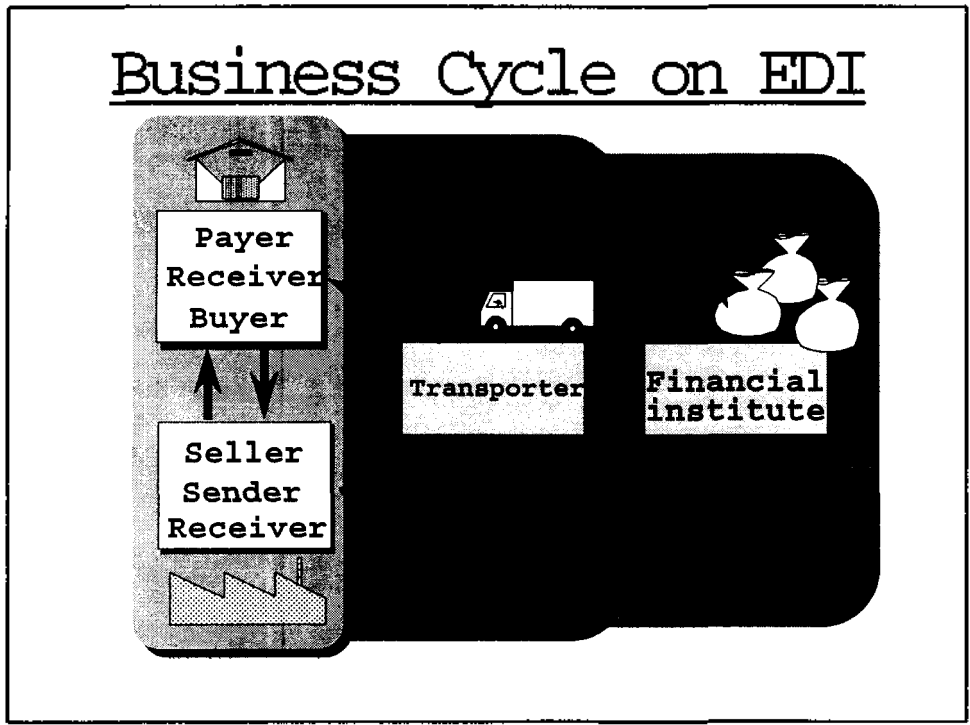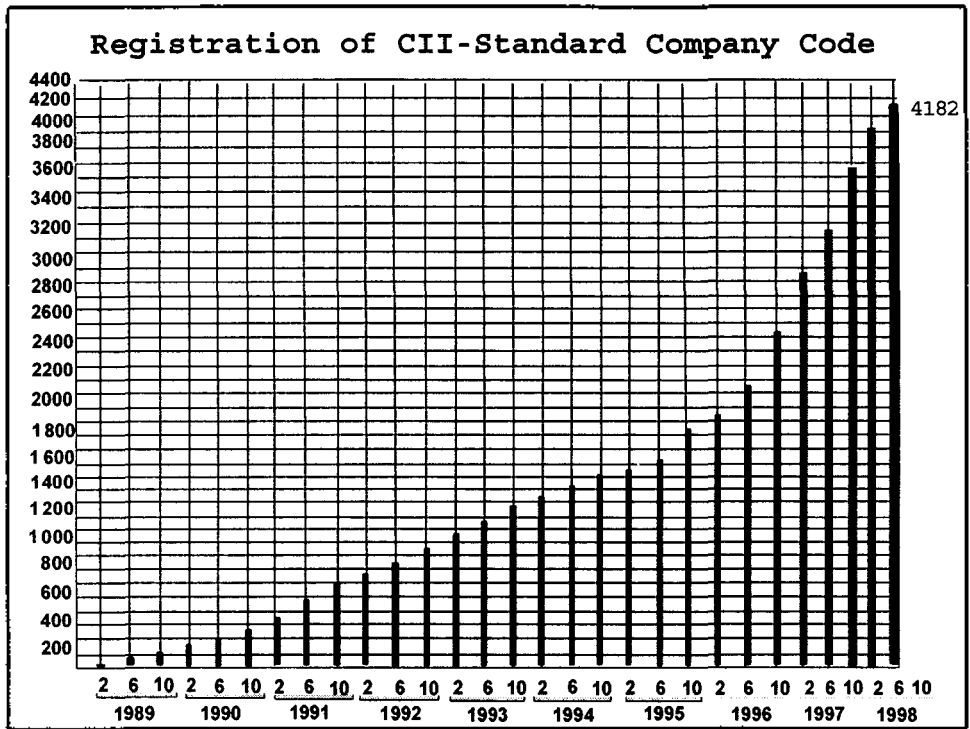telecommunications society we should achieve by 2001.

1) Prepare network infrastructure

2) Promote electronic commerce

3) Computerize public services

4) Promote R&D in information and telecommunications fields

5) Promote standardization for mutual compatibility and operability

Create a business environment attractive internationally.

Limit the public burden to maintain or improve economic vitality.

## Registration of BPID (Business Protocol Identifier) in Japan

BPID	Agency	Year
E I A J	Electronic Industries Association of Japan	1989
J P C A	Japan Petrochemical Industry Association	1991
F E P C	The Federation of Electric Power Companies	1991
C I N T	Promotion Fund for Construction Industry	1992
H I I S	Housing Industry Information Service	1992
J I S I	The Kozai Club (Iron & Steel Industry)	1992
J E M A	Japan Electrical Manufacture's Association	1992
J C M A	The Japanese Electric Wire & Cable Maker's Association	1992
H O M E	The Study Group of D.I.Y. Shops (Home center)	1994
J G A S	The Japan Gas Association	1994
T I R A	Textile Industry Restructuring Agency	1995
N E W S	The Japan News Paper Publishers & Editors Association	1995
J T R N	Japan Domestic Transport Committee	1995
J A M A	Japan Automobile Manufacturers Association	1996
C P S D	Communication Procurement and Supply Department	1996
W A V E	Japan Advertising Agencies Association	1997
H W S W	Small Computer and Software Distribution Industry	1998
J A L F	Japan Aluminum Federation	1998

Registration of CII-Standard Company Code

Bar chart showing registration counts from 1989 to 1998, measured at months 2, 6, and 10 each year. Values grow from near 200 in 1989 to 4182 in 1998.

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998

Final value labeled: 4182

Business Cycle on EDI

- Payer / Receiver / Buyer
- Seller / Sender / Receiver
- Transporter
- Financial institute

JEDIC (Japan Electronic Data Interchange Council)

OBJECTIVES: (1) Disseminate EDI knowledge and to study common EDI issues regardless of industry type,

(2) Promote EDI internationalization and industry exchange wide spread information sharing, and

(3) Contribute to the promotion of EDI dissemination in all industries.

ACTIVITIES: (1) EDI Education and Dissemination activities

(2) EDI standardization activities

(3) EDI internationalization activities

ORGANIZATION: -Steering Committee
- International Committee
-EDI Education and Dissemination Committee

MEMBERS: 60 Industry Groups (more than 10,000 companies)

OBSERVERS: MITI (Ministry of International Trade and Industry)
MoF (Ministry of Finance), MoT (Ministry of Transport)
MoC (Ministry of Construction)

SECRETARIAT: CII / JIPDEC
(Center for the Informatization of Industry
/ Japan Information Processing Development Center)

E-mail: cii-sec@jipdec.or.jp
URL: http://www.ecom.or.jp/jedic/index.htm
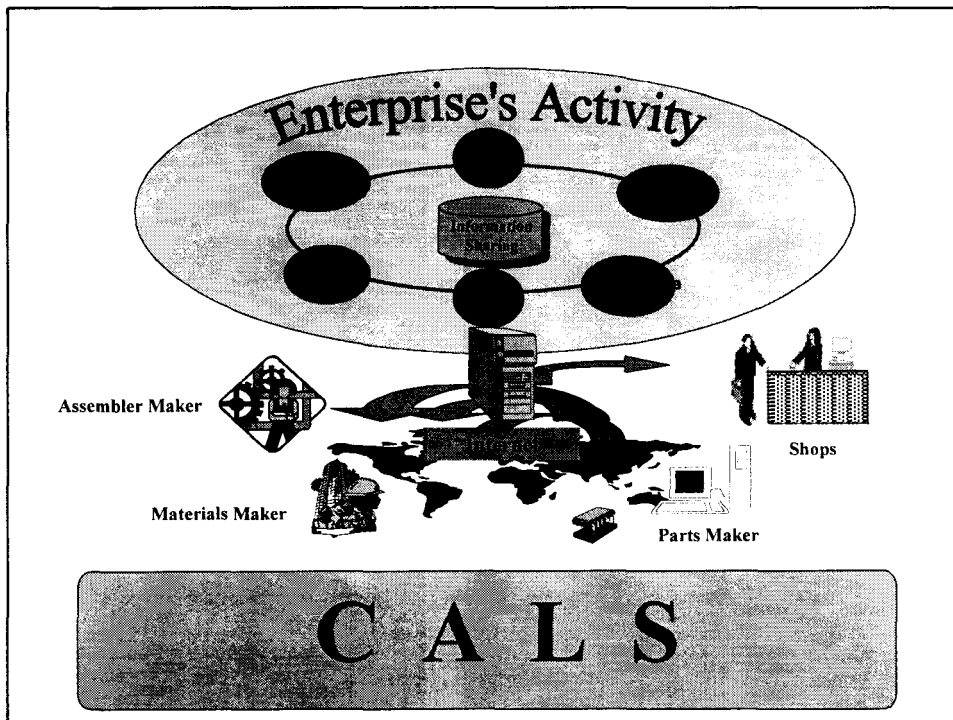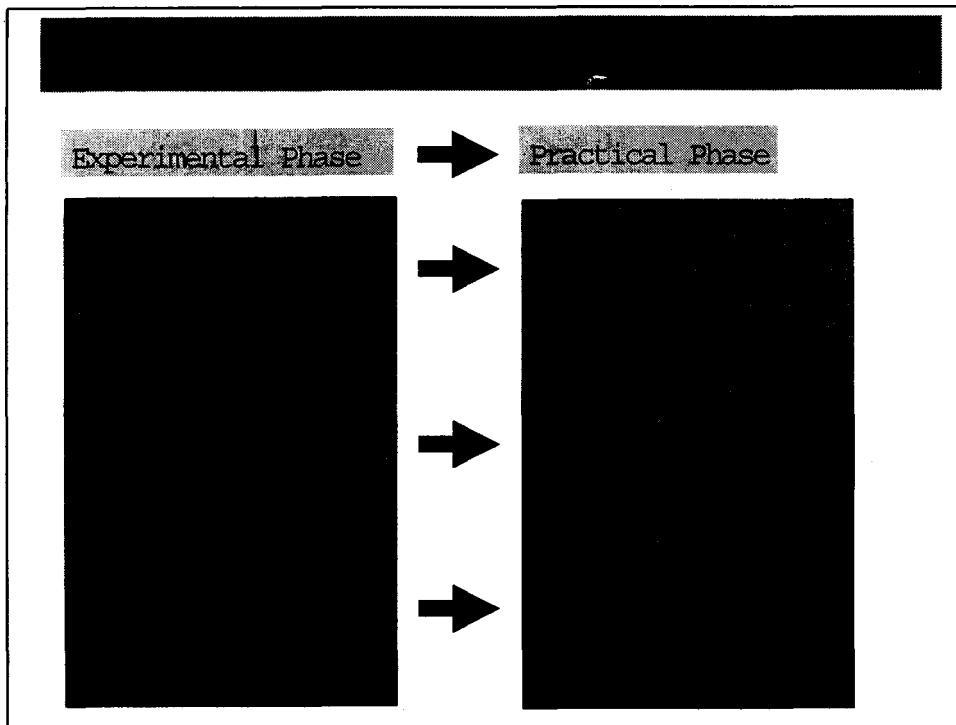
NCALS (Nippon CALS Research Partnership)

OBJECTIVES:

To demonstrate to Japanese industrial users that adoption of CALS will enable all information concerning the entire life cycle of a product to become integrated into a common property shared by all industries, in order to contribute effectively
to enhancing the management efficiency of the entire industrial community.

ACTIVITIES:

- Pilot Implementation Project
    A project for demonstrating the applicability of CALS is being carried out, adopting as a model a practical application in the field of electric power supply.

- Industry-specific R&D Projects
    In parallel with the foregoing demonstration project, joint experiment projects will be undertaken in the application of CALS individually to different industries.

PROJECT PERIOD:

3 years(May1995 to May 1998)

PARTNERSHIP MEMBERS:

more than 80 companies and industrial groups

E-mail: ncals-ad@ncals.cif.or.jp
URL: http://www.ncals.cif.or.jp/

8

CIF (CALS Industry Forum, Japan)

OBJECTIVES:
To support CALS activities so that users of information systems can create virtual enterprises with their very own hands.

ACTIVITIES:
(1) Research and Development Activities
(2) International Cooperation
(3) Promoting the Spread and Introduction of the CALS Network
(4) Providing Education and Training Through Seminars and
  Other Events Support of Local Research
(5) The Offering Information Related to CALS

ORGANIZATION:
-General Board
-Board of Directors
-Steering Committee----
  4 Divisions (Planning, International, Industrial and Technical) ,
  Information Center, and VE2006 Center

MEMBERS: About 200 companies and industrial groups

E-mail:	cif-ad@cif.or.jp
URL:	http://www.cif.or.jp/

9

Achievement of NCALS

"CALS Implementation Guidebook"

"CALS System Development Guidebook"

"Summary Report of
          NCALS Demonstrative Experimentation"

Impacts on Industries of NCALS

Proposing Practical B P R
Promoting Standardization and Implementation
Innovating Information Technology
Deepening Relationship among Corporations
Recognizing Core-Competence

Major Theme for Practical Phase

Expanding and integrating Experimentation

Commercializing CALS-related IT

Promoting Standardization

Advancing Telecommunication Network

Awareness for Management of Corporation

Awareness for SME and Creating Support System

Redesigning Institutional Scheme

JECALS   Japan EC/CALS Organization

OBJECTIVES:

To increase industrial productivity and overall economic efficiency
through intercorporate Electronic Commerce (EC):
- promote the development of information technology,
    which is the foundation on which such technology rests,
- based on international negotiation and accord, adopt guidelines
    for the utilization and standardization of information technology,
- and promote the diffusion of electronic commerce
    among corporate entities.

ACTIVITY:

1) Prepare the shared infrastructure and
    develop the information technology required to support intercorporate EC.
2) Adopt utilization and introduction guidelines for promoting intercorporate EC.
3) Pursue international standardization activities related to intercorporate EC.
4) Conduct surveys, public education, and popularization activities.

MEMBERS:

Council Members:14, Regular Members:17, General Members:34

(as of Sept.1998)

E-mail: jecals @jecals.jipdec.or.jp
U R L: http://www.jecals.jipdec.or.jp/

JECALS :Japan EC/CALS Organization

JECALS :Japan EC/CALS Organization

Council Members

CI-NET:Fund for Construction Industry Promotion
Fujitsu
Hitachi
IBM Japan
Japan Automobile Manufacturers Association
Japan Iron & Steel Union
Mitsubishi Electric
NEC
Nihon Unisys
NTT DATA
Oki Electric Industries
The Federation of Electric Power Companies
The Society of Japanese Aerospace Companies
Toshiba

Regular Members

Collaborative Engineering Office Initiative
Engineering Advancement Association
Fuji Electric
Fuji Research Institute
Fuji Xerox
Hitachi Information Systems
Ishikawajima Harima Heavy Industries
Japan Auto Parts Industries Association
Kawasaki Steel Systems R&D Corporation
Matsushita Electric
Mitsubishi Materials
Mitsubishi Research Institute
Nihon Inter Systems
NK-exa Corporation
Shachihata
Sharp
Toden Software

General Members

Canon Inc
Dai Nippon Printing
ELISNET
Fanuc
Furukawa electric
Graphics Products
Information and Mathematical Science Laboratory
Information Services International-Dentu
Itochu Techno-Science
IVIS
Japan Research Institute
Kawasaki Heavy Industries
Komatsu
Kozo keikaku Engineering
Kubota Graphics(KGT Inc.)
Kubota
Maeda Corporation
Marketing Intelligence Corporation
Meteora System
Mitsubishi Corporation
Mitsubishi Heavy Industries
Mitsui & Co., Ltd.
Mitsui Engineering & Shipbuilding
Nippon Avionics
ORGANO
Otsuka Shokai
Richo
Sanyo
Sony
The Kaihatsu computing service center
Toyo Engineering Corporation
Toyo Information Systems
Toyota Software Engineering
Yokogawa Electric

(as of Sept.,1998)

ECOM (Electronic Commerce Promotion Council of Japan)

OBJECTIVES: To build a common platform for Consumer-EC, intending to function as an open forum for examining every conceivable issue relating to the subject.

ACTIVITIES:
(1) support for, and coordination of, technology development
(2) examination of social and institutional issues
(3) international cooperation
(4) support for, and coordination of, testbed projects

ORGANIZATION: -General Meeting
-Board of Director
-Steering Committee
---- 7 WGs
----International Cooperation Division
----Testbed projects Coordination Committee
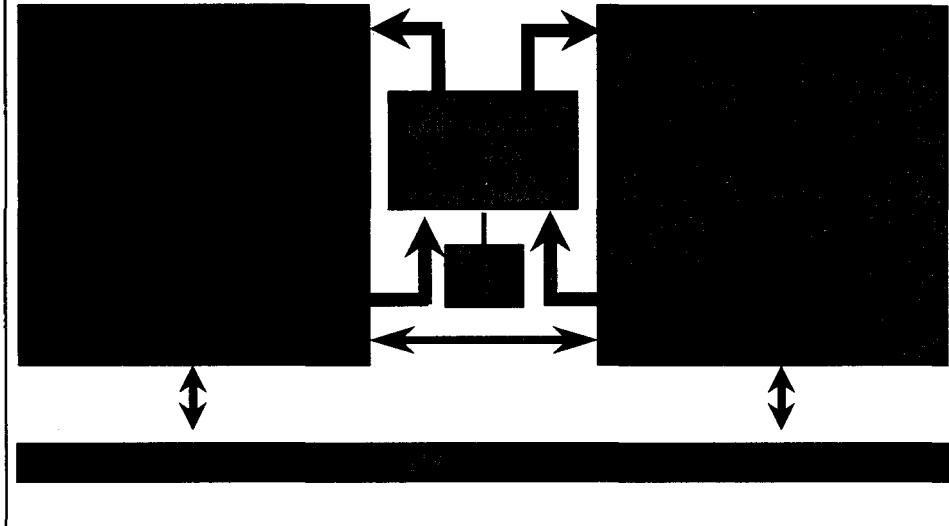
MEMBERS: Core Members: 27,
Regular Members A: 97, Regular Members B: 99, Special Members: 7
(Total:230 as of Oct.1,1998)

SECRETARIAT: CII / JIPDEC

E-mail:	info@ecom.or.jp
URL:	http://www.ecom.or.jp/

WG activities of ECOM (Phase 1)

Results (mains) of ECOM (Phase 1)

Guidelines;
  " Certification Authority Guidelines "
  " Smartcard Use Guideline (contact and contactless) "
  " Guidelines on Personal Data Protection in EC in the Private Sector "
  " Guidelines for Transaction between virtual Merchants and Consumers "
  " Electronic Notary System Guidelines "
Model Agreements;
  " Digital Check Agreements "
  " Debit Model Agreements "
  " Pre-paid Electronic Money Agreements "
  " Standard Payment Model and Agreement for Credit-type EC "
Technology Evaluation Criteria;
  " Personal Authentification Technology Evaluation Criteria "
  " Security Function Evaluation Document for Internet Credit Payment "
  " Mall Construction Technology Evaluation Models "
  " Model for Product Attributes by Product Group for Consumer-EC"
Explanation and Analysis Documents;
  " SET V0.0/1.0 Explanatory Document "
  " Cryptographic Technology Handbook "
  " Institutional Issues for International EC"

ECOM Activity (Phase 2)

ECom

████████

- Enrolling potential EC players
- Establishing a trustworthy environment
- Creating new business opportunities for EC
- Solving cross-border EC issues

████████████

- Consumer Issues WG
- Certification / Notary WG
- Electronic Settlement WG
- Security WG
- Risk / Insurance WG
- Business Process WG
- International Business / Trade Procedure WG
- International Cooperation / Survey

EC Promotion Projects (2nd Round)

Purpose: To recovery and vitalize
Japanese Economy by Digital Innovation

Budget : \ 50,000M(Supplementary Budget 1998FY)

Management: MITI / IPA / JIPDEC

Projects: 2 years (1998FY-1999FY)
Offering for public subscription
Selection Criteria:
1) Digital Economic Innovation
Reconstructing Japanese Economy
Developing New Business
Contributing B P R
2) Preference to developing real business

Electronic Commerce Promotion System

"Type of EC" "Promotion Organization" "Social and International Issues"

Consumer-EC

Corporation-EC

Information Technology Promotion Association (IPA)

"liaison"

Electronic Commerce Promotion Council of Japan (ECOM)

Technology Issues WG

Social and Institutional Issues WG

International Cooperation WG

feed back
test result
detail studies

Electronic Commerce Social Environment Study Group (MITI)

EDI

Center for the Informatizationof Industry (CII)

"liaison"

STEP Promotion Center (JSTEP)

Nippon CALS Research Partnership(NCALS)

CALS Industry Forum, Japan (CIF)

CALS

15