SCREENING CHAPTER 16
TAXATION

AGENDA ITEM: COMPUTERISATION

Country Session: The Republic of TURKEY
11-12 July 2006

CONTENTS

- VEDOP (Tax Office Automation Project)
- Citizen ID – Tax ID
- e-Declaration
- Electronic Bank Collection Processing System (EBTİS)
- Call Center
- Internet Tax Office
- Components of Information Society
- Security Infrastructure
- Data Exchange Infrastructure
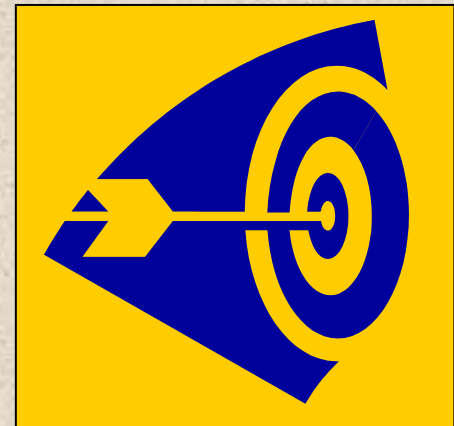- Management Information System (MIS)
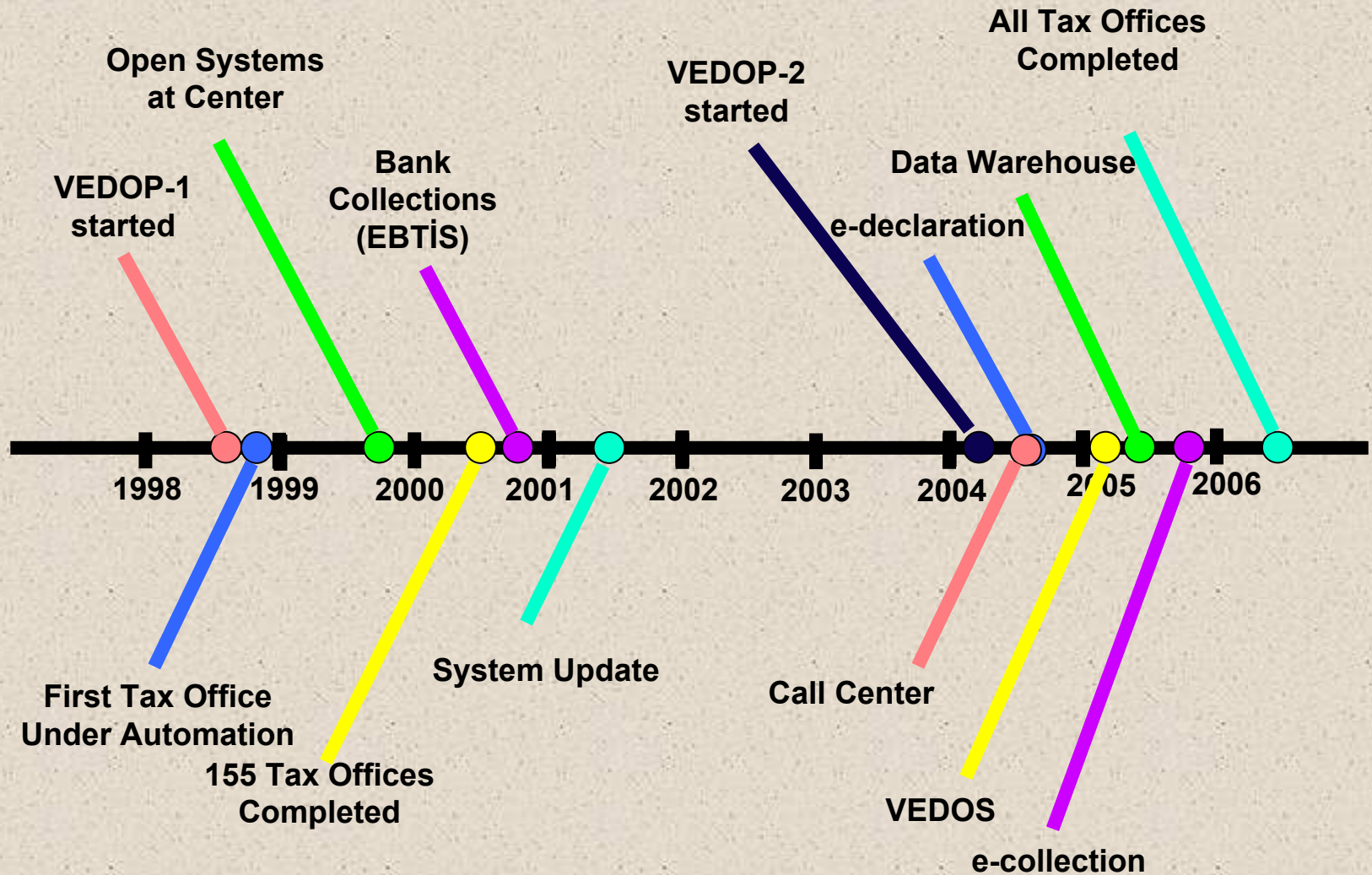- Human Resources
- Ongoing Projects

VEDOP

Automation of Tax Offices
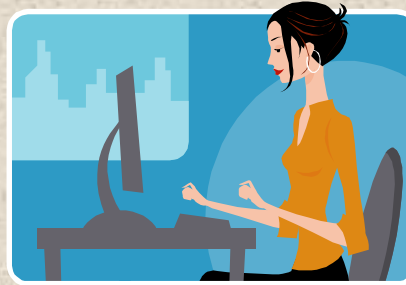
OBJECTIVES

- Full Automation

- Efficient and Effective Administration

- Taxpayer Oriented Services

- Increasing the Productivity

- Fight Against Unregistered Economy

- Tax Returns via Internet

- Tax Collection via Banks

- Data Exchange with Other Institutions

Open Systems at Center

VEDOP-2 started

All Tax Offices Completed

VEDOP-1 started

Bank Collections (EBTİS)

Data Warehouse

e-declaration

1998   1999   2000   2001   2002   2003   2004   2005   2006

First Tax Office Under Automation

System Update

Call Center

155 Tax Offices Completed

VEDOS

e-collection

VEDOP with Numbers

Tax Offices	448
Tax Auditing Units	74
Unix Servers	56
Servers (Intel Based)	566
PCs	19,204
Matrix Printers	7,277
Passbook Printers	3,471
Laser Printers	2,418
Barcode Readers	1,588
Routers	485
Ethernet Switch	1,142

Tax Office Structures

Automated Tax Offices	
e-VDO	147
VEDOP	301
Total Tax Offices	**448**

Accounting Offices to be Automated	
Number of Accounting Offices	585
Percentage of Accrual in Total	1.89 %

Tax Office Structures
e-VDO : Web Based Application

147 Tax Offices
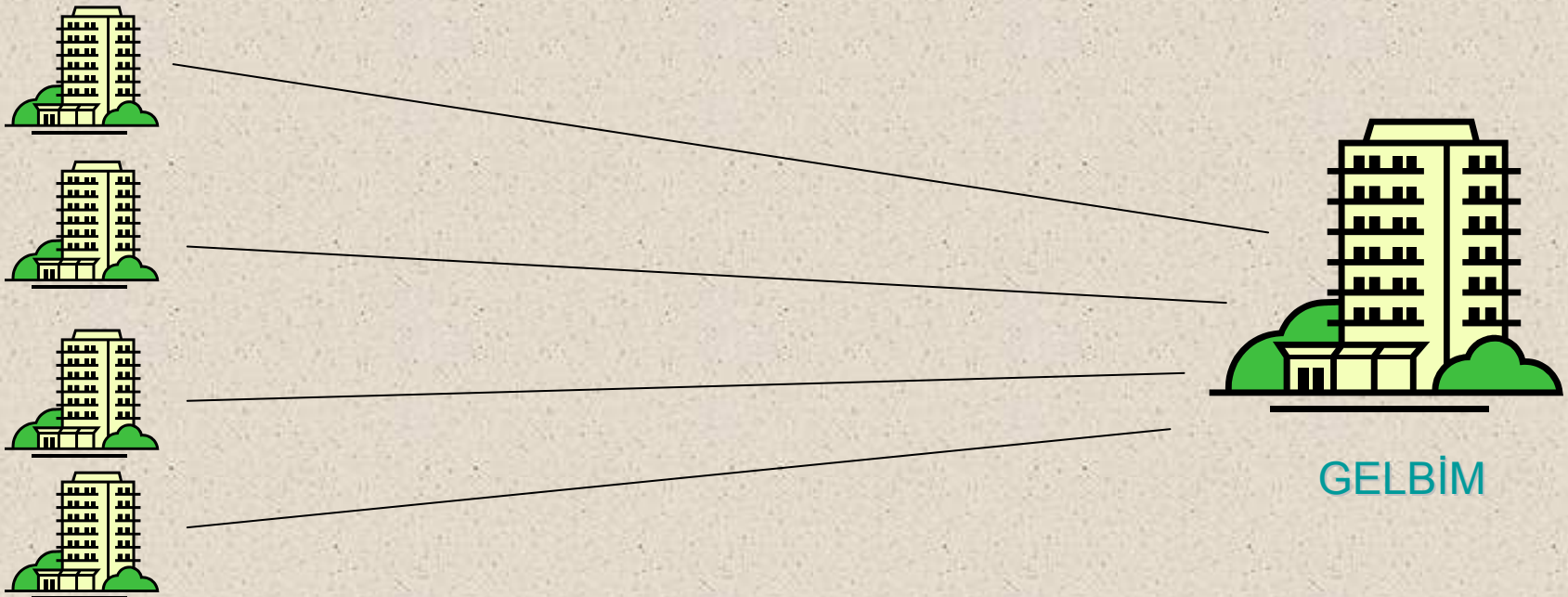
GELBİM

Online Applications

Tax Office Structures
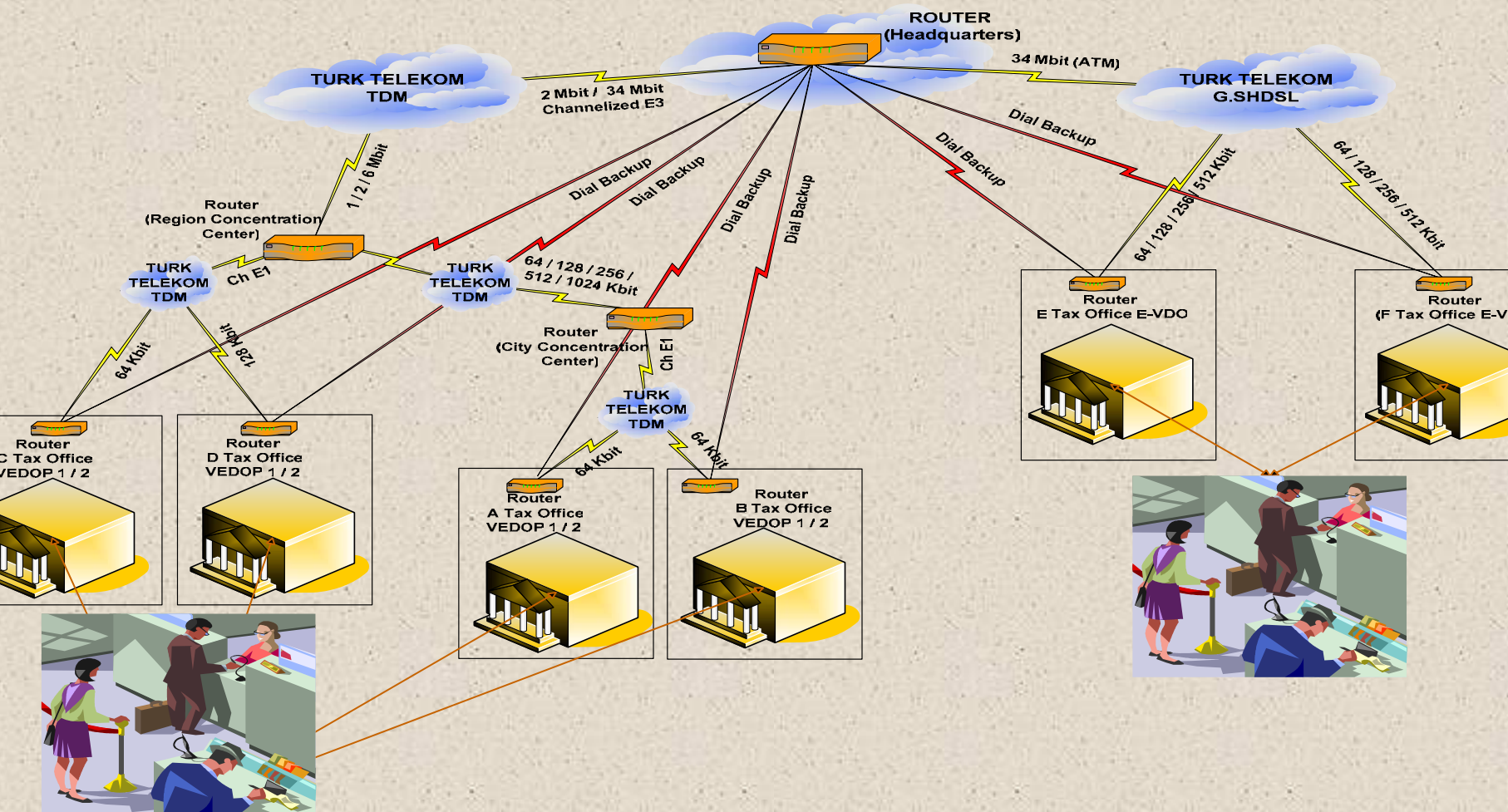## VDO : Client-Server Architecture

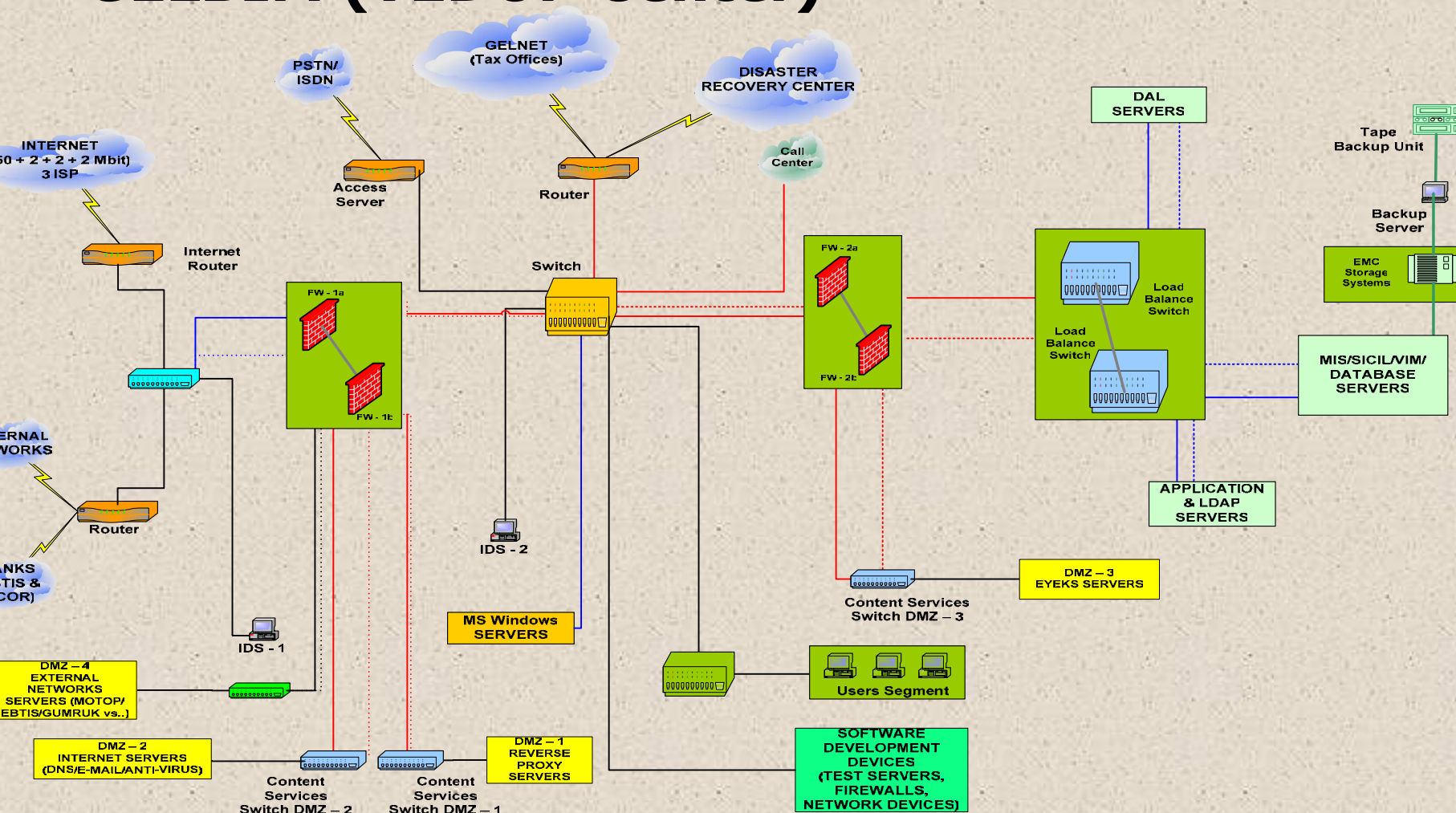## 301 Tax Offices

Local Database in Working Hours (Near Online)

GELBİM

**End of the Day Consolidation With Center**

GELNET (VEDOP Intranet)

**ROUTER
(Headquarters)**

**TURK TELEKOM
TDM**

34 Mbit (ATM)

**TURK TELEKOM
G.SHDSL**

2 Mbit / 34 Mbit
Channelized E3

Dial Backup

1 / 2 / 6 Mbit

Dial Backup

Dial Backup

Dial Backup

Dial Backup

Dial Backup

Dial Backup

64 / 128 / 256 / 512 Kbit

64 / 128 / 256 / 512 Kbit

**Router
(Region Concentration
Center)**

**TURK
TELEKOM
TDM**

Ch E1

**TURK
TELEKOM
TDM**

64 / 128 / 256 /
512 / 1024 Kbit

**Router
(City Concentration
Center)**

Ch E1

**Router
E Tax Office E-VDO**

**Router
(F Tax Office E-V**

64 Kbit

128 Kbit

**TURK
TELEKOM
TDM**

64 Kbit

**Router
C Tax Office
VEDOP 1 / 2**

**Router
D Tax Office
VEDOP 1 / 2**

64 Kbit

**Router
A Tax Office
VEDOP 1 / 2**

**Router
B Tax Office
VEDOP 1 / 2**

GELBİM (VEDOP Center)

GELNET
(Tax Offices)

PSTN/
ISDN

DISASTER
RECOVERY CENTER

Call
Center

DAL
SERVERS

Tape
Backup Unit

INTERNET
(60 + 2 + 2 + 2 Mbit)
3 ISP

Access
Server

Router

Backup
Server

Internet
Router

Switch

FW - 2a

Load
Balance
Switch

EMC
Storage
Systems

FW - 1a

Load
Balance
Switch

FW - 2b

MIS/SICIL/VIM/
DATABASE
SERVERS

FW - 1b

ERNAL
WORKS

APPLICATION
& LDAP
SERVERS

Router

IDS - 2

DMZ – 3
EYEKS SERVERS

ANKS
TIS &
COR)

Content Services
Switch DMZ – 3

IDS - 1

MS Windows
SERVERS

DMZ – 4
EXTERNAL
NETWORKS
SERVERS (MOTOP/
EBTIS/GUMRUK vs..)

Users Segment

DMZ – 2
INTERNET SERVERS
(DNS/E-MAIL/ANTI-VIRUS)

Content
Services
Switch DMZ – 2

Content
Services
Switch DMZ – 1

DMZ – 1
REVERSE
PROXY
SERVERS

SOFTWARE
DEVELOPMENT
DEVICES
(TEST SERVERS,
FIREWALLS,
NETWORK DEVICES)

VEDOP Infrastructure

- **Unix Servers with Solaris 9**

- **Sybase ASE 12.5.2 Database**

- **Sun One Application Server**

- **Sybase IQ 12.5 Data Warehouse**

- **Business Objects Data Integrator ETL and Infoview Reporting Tools**

- **CA Unicenter System Management**

- **WEB based software development with JAVA**

- **Data Exchange with XML**
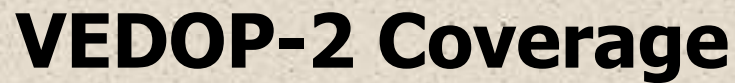
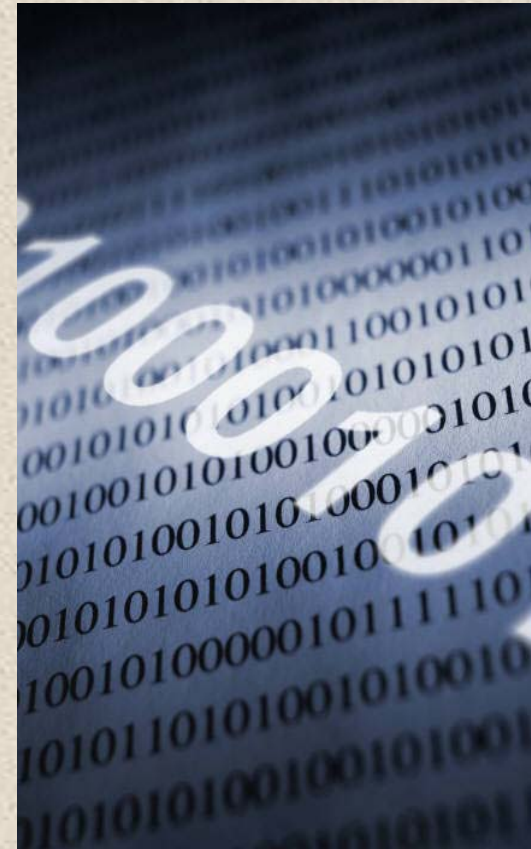- **TCP/IP based Communication Network**

VEDOP-1 Coverage
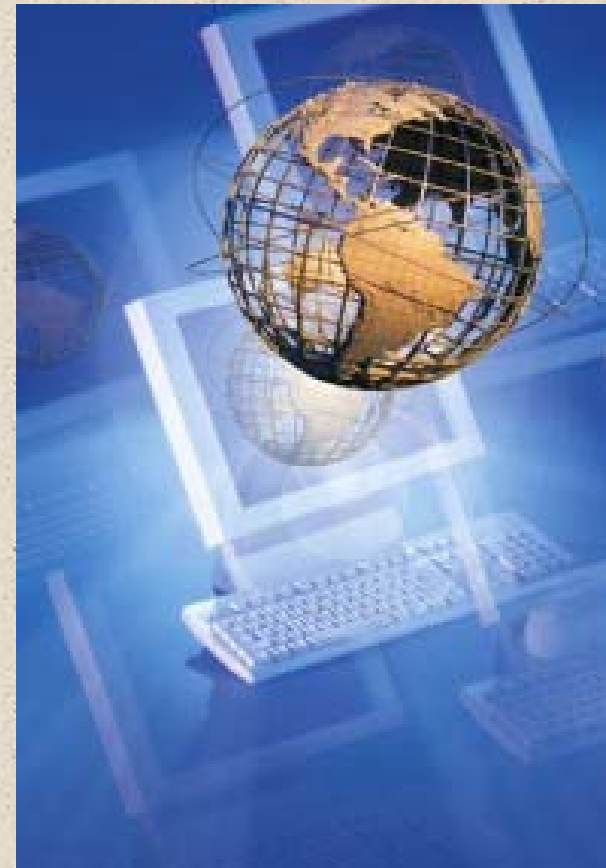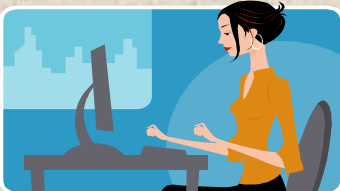
VEDOP-2 Coverage

Citizen ID – Tax ID

● All Tax Payers (Companies and Individuals) have a ten digit Tax ID

1234567890

● After the realization of MERNIS all citizens have been provided an eleven digit Citizen ID

12345678901

Citizen ID – Tax ID

● The works concerning realisation of the all taxation transactions of real persons with Citizen ID is about to be completed.

● In two years, all public institutions will be using Citizen ID for all the transactions.

MERNİS Project – Citizen ID

● MERNİS (Central Population Management System) is held by the Directorate General of Population and Citizenship Affairs of the Ministry of Interior.

● Alive or dead 122.145.860 individuals have been given a unique Citizen ID and all the information has been transferred to electronic form.

● All local population offices are connected online via intranet.

● The Identification Information Sharing System is established among public institutions.

Data Exchange with MERNİS

Data Exchange
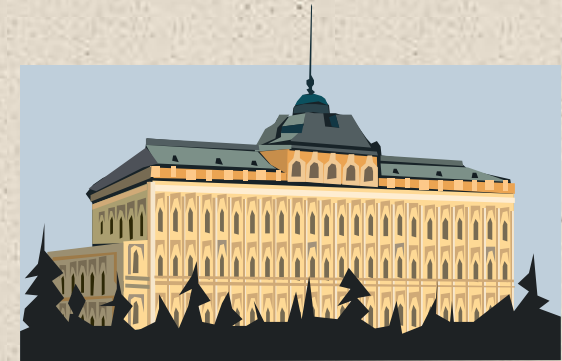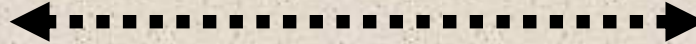
Tax Office

MERNİS Center

Citizen ID	12345678901
Name	Mehmet
Last Name	Atuğ
Place of Birth	Aksaray
Date of Birth	05.05.1965

e-Declaration

- Transformation of tax offices (from operational units to specialization units by minimising their workload)

- Fast and precise accruals

- Storing declarations electronically (No archives, no files)

- No need to visit tax offices

- Collecting information for Data Warehouse (Balance sheet, income tables, all other forms)

e-Declaration

● Turkey's biggest portal with 2,500,000 tax payers

● Saving 6,000 tons of paper annualy (2.5 million €/year)

● Saving 14,000 man-month annualy (3.4 million €/year)

e-Declaration

● Started in October 2004

● Widely accepted in a very short time period by the taxpayers

● Usage ratio is continuously increasing

● 25 different type of declaration and appendices can be sent as e-declaration via Internet

● Username-password pair is being used for authentication

● Infrastructure is ready for Digital Signature
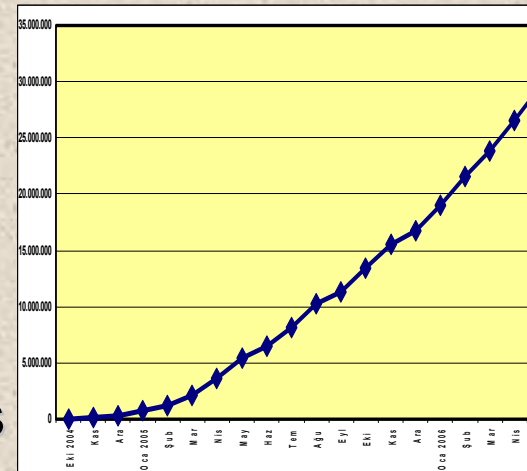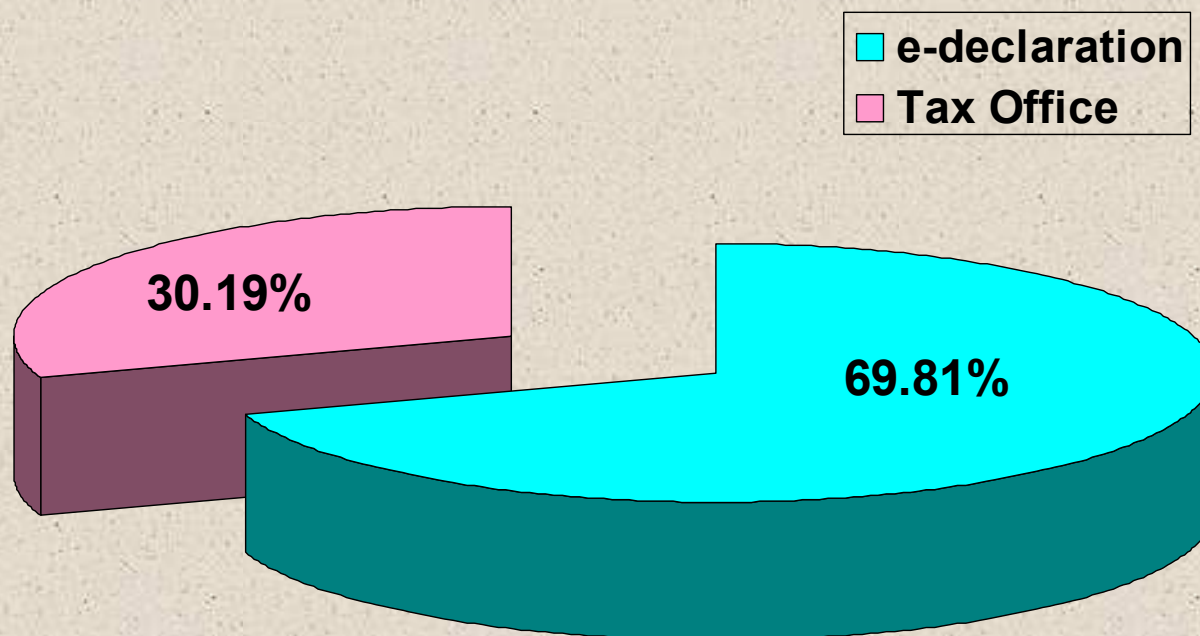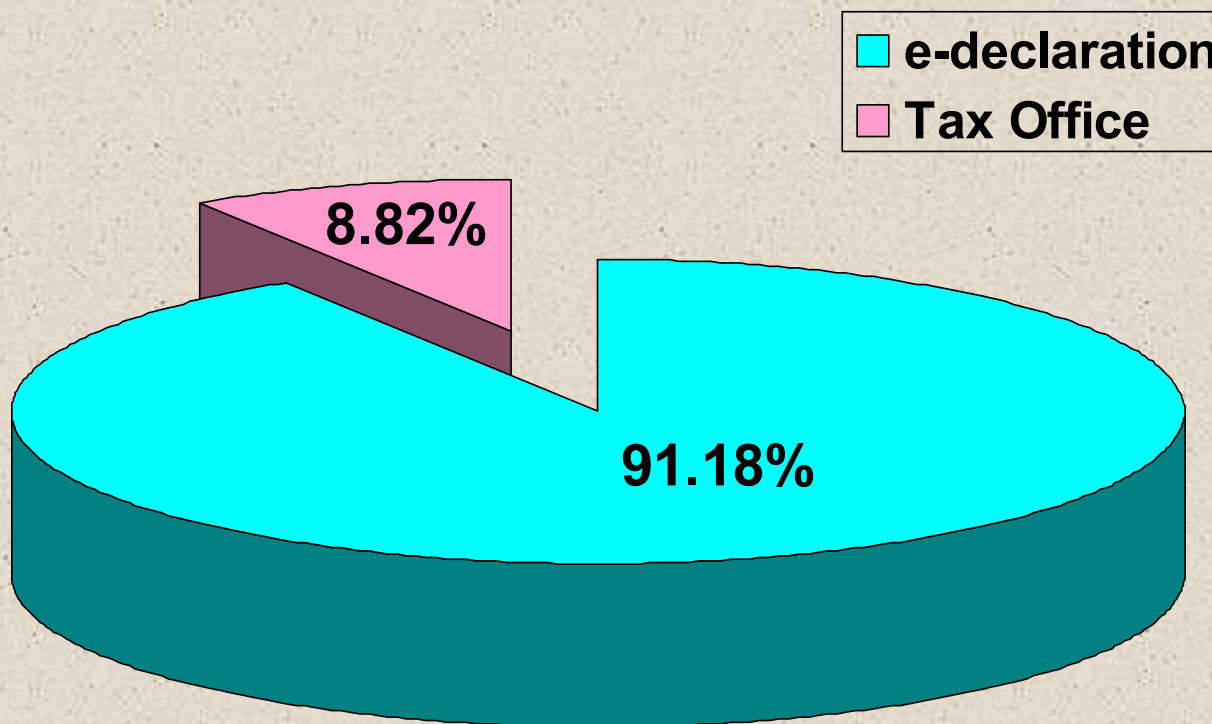
Monthly e-declaration Numbers
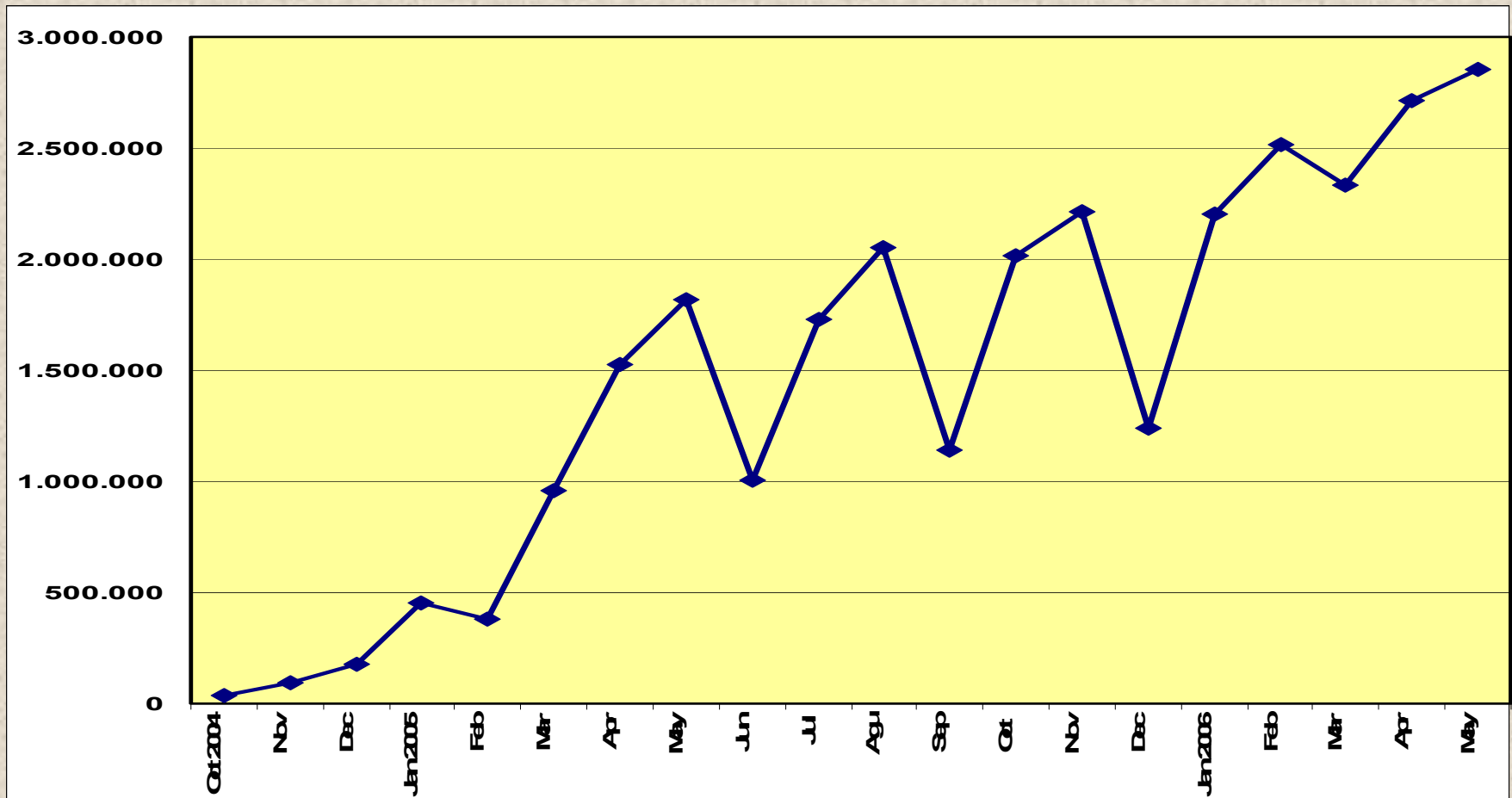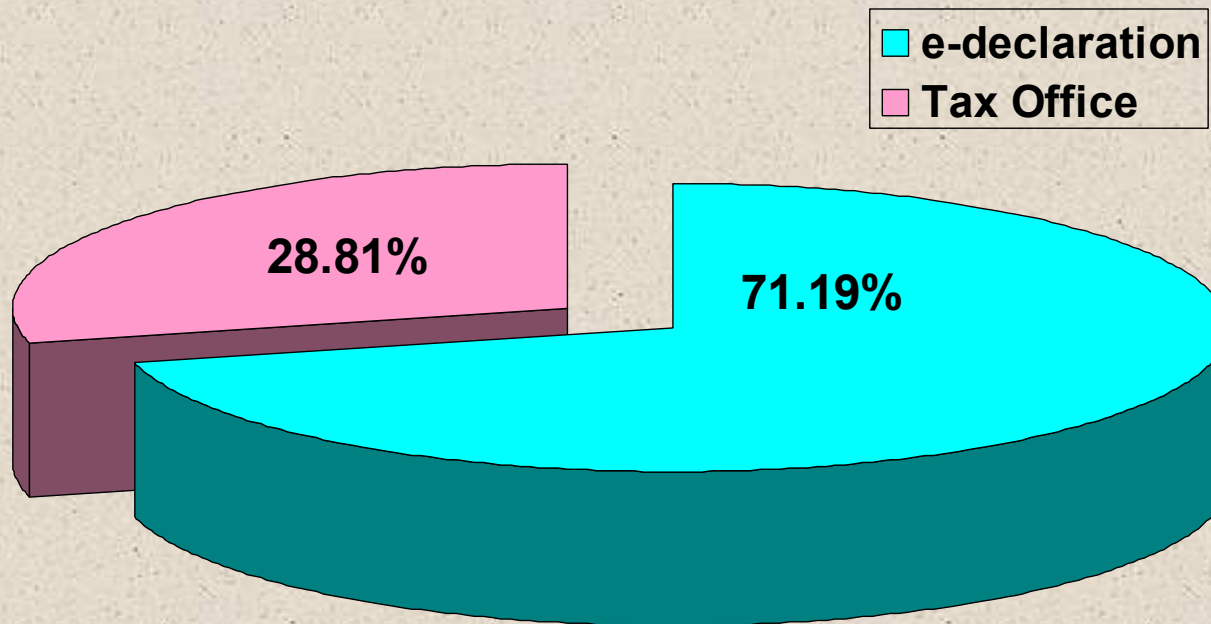
Total e-declaration Numbers

2006 Income Tax Ratios

☐ e-declaration
☐ Tax Office

30.19%

69.81%
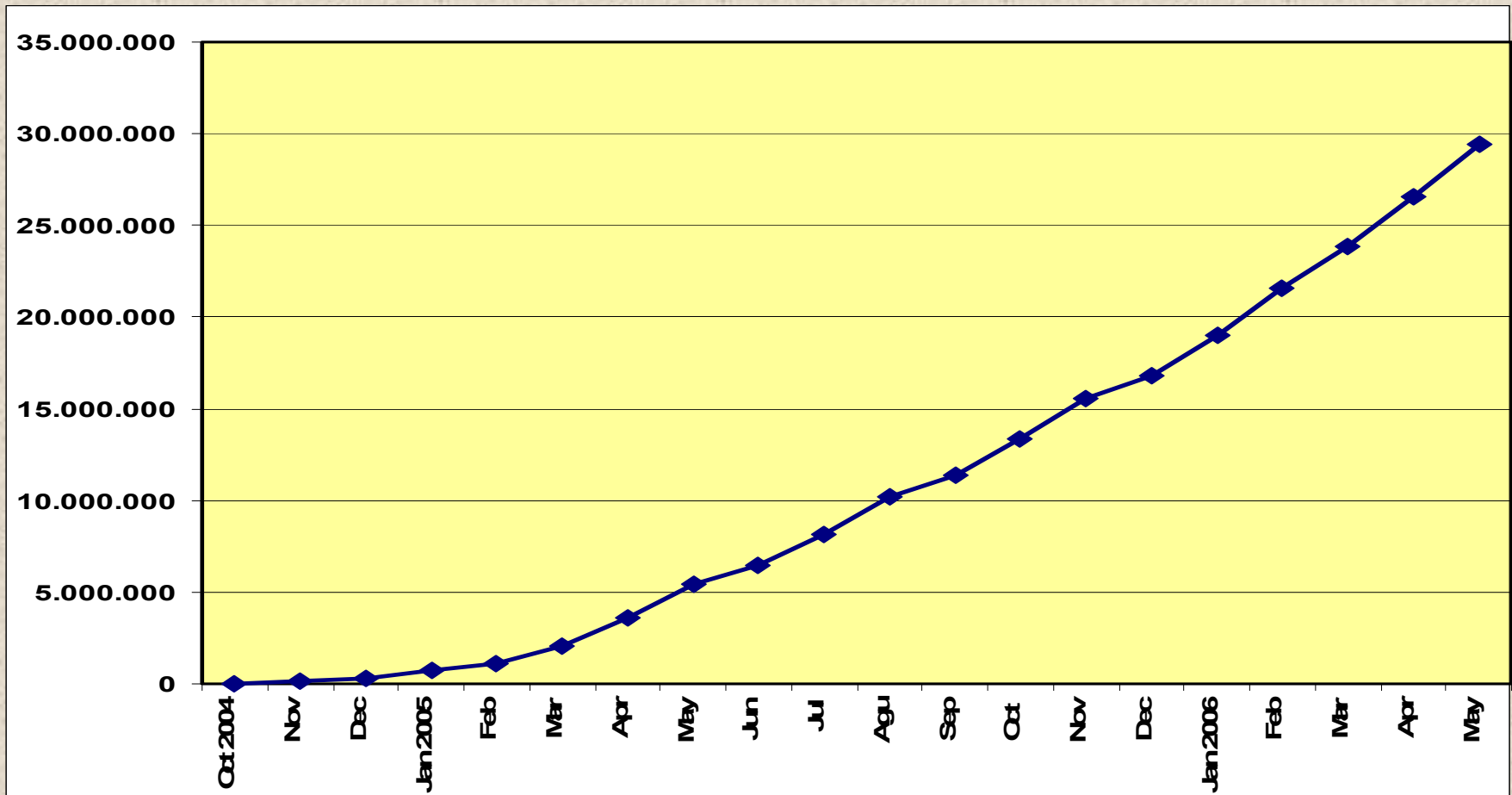
2006 Corporate Tax Ratios

■ e-declaration
■ Tax Office

8.82%

91.18%

VAT Ratios

- e-declaration
- Tax Office

28.81%

71.19%

Witholding Tax Ratios

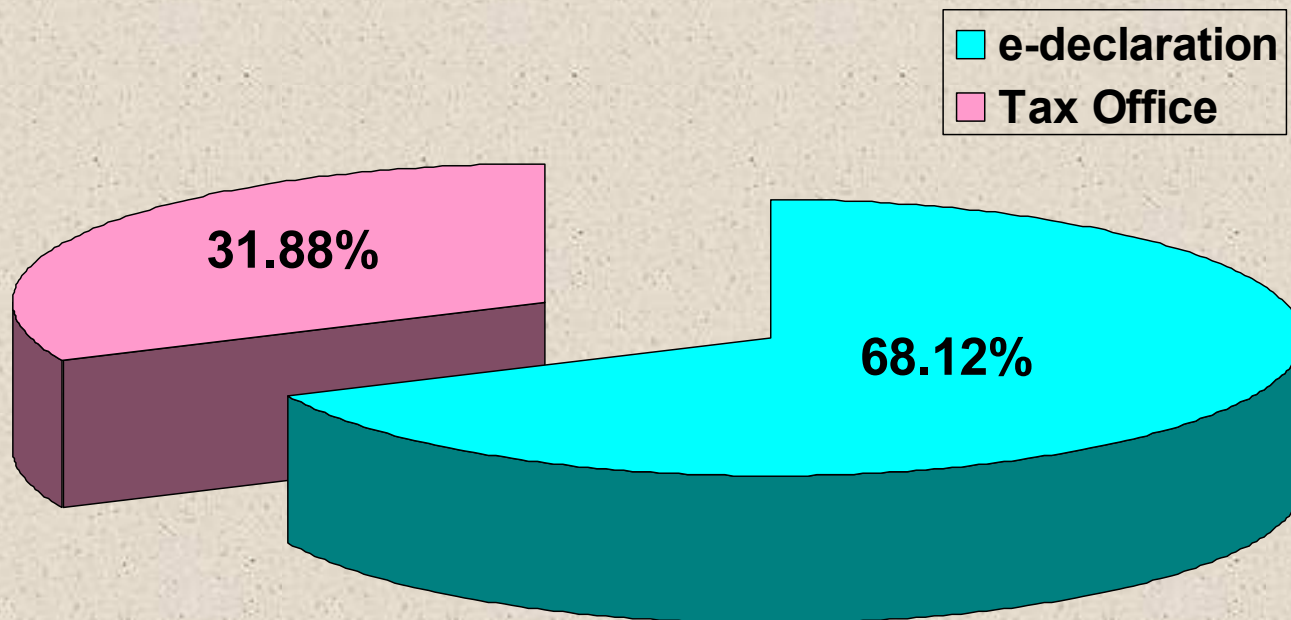□ e-declaration
□ Tax Office

31.88%

68.12%

e-Declaration Capacities
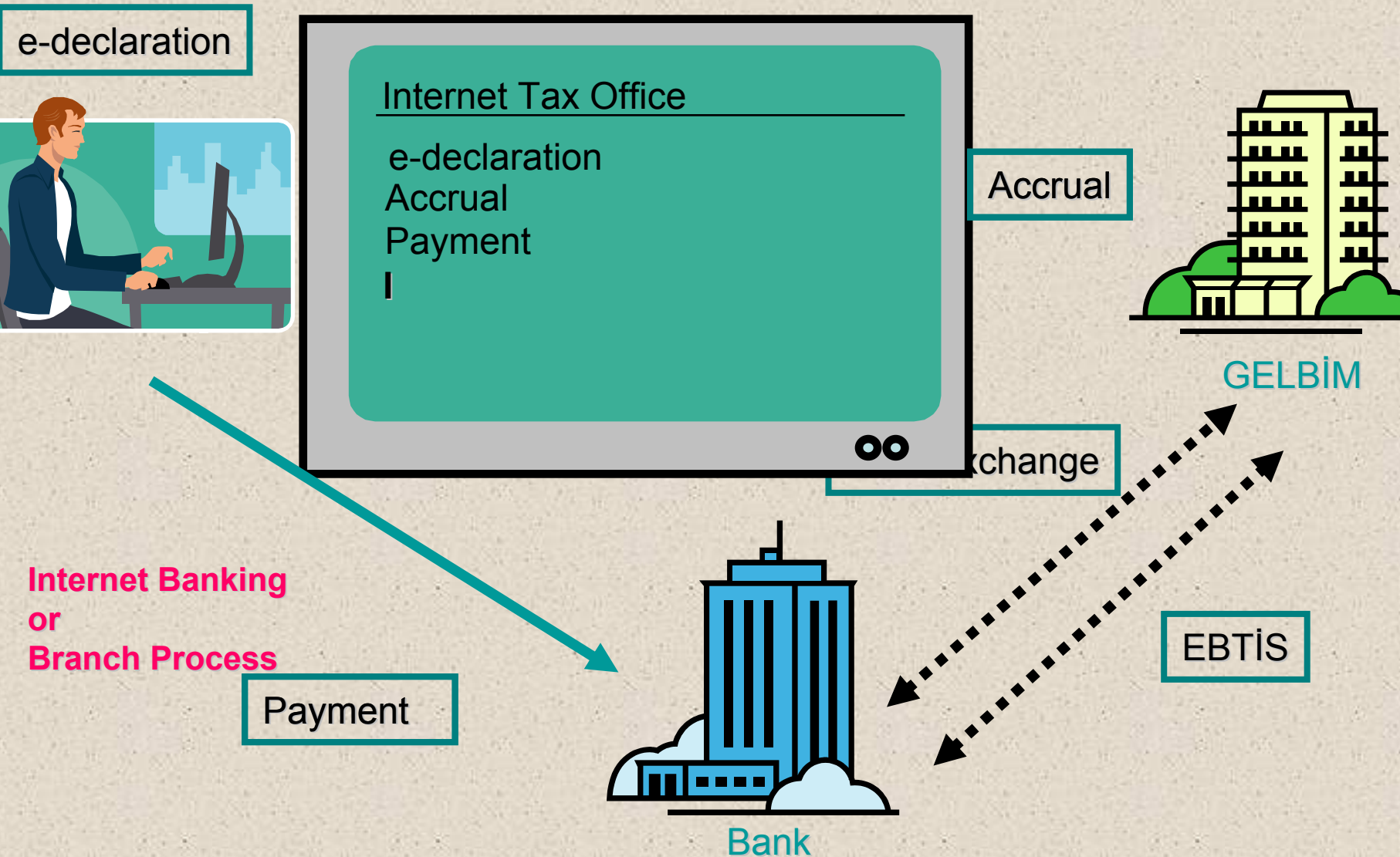
- Hourly

  - Maximum taken   :   90,000

  - Maximum capacity   :   200,000

- Daily

  - Maximum taken   :   650,000

  - Maximum capacity   : 4,800,000

e-declaration

Internet Tax Office
e-declaration
Accrual
Payment

Accrual

GELBİM

Exchange

Internet Banking or Branch Process

Payment
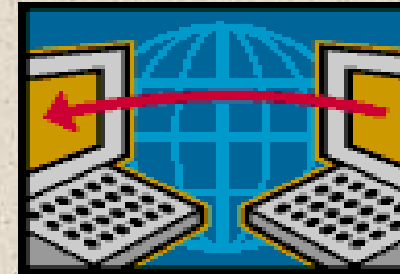
Bank

EBTİS

EBTİS

Electronic Bank Collection Processing System

- e-Collection allows the banks to monitor and pay tax payer's debt to the tax office.

- EBTIS process the offline collections from banks.

Call Center

- First call center application in public sector

- Continuous support for e-declaration

- Any kind of support for solving tax payer's problems
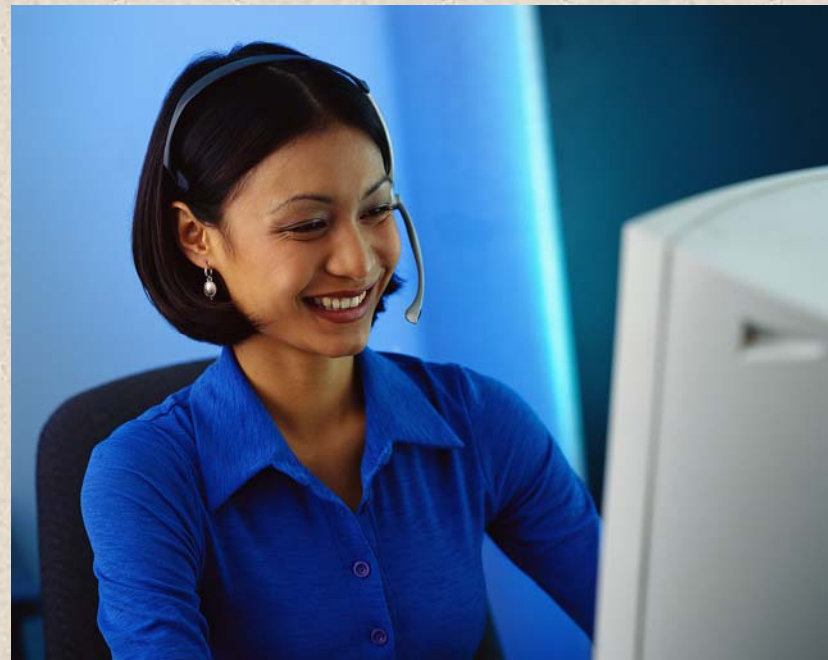
Internet Tax Office

Data from EBTIS and e-declarations are the inputs for the system

• Accruals, collections, debt information of due and undue dates and delay raise -if exists- can be queried online

• Reminder service can inform the taxpayers for their duties fifteen days in advance

İnternet Vergi Dairesi

İnternet Vergi Dairesi'ne Hoş Geldiniz.

- Tanıtım
- Mevzuat
- Yeni
- İnternet Vergi Dairesi
- Etkinlikler
- Formlar ve Yayınlar
- Duyurular Ve Haberler
- İnteraktif Eğitim
- Mükellef Hizmetleri
- Ankara OECD Vergi Merkezi
- Vergi İstatistikleri
- Y. Vergisel Teşvikler
- Bağlantılar
- Taslaklar

Sık Kullanılanlar
- Sıkça Sorulan Sorular
- Güncel KDV Oranları
- e-Beyanname
- e-Posta Bilgilendirme
- Motorlu Taşıt Sorgulaması
- Y.Dışı Çıkış Yasağı Sorgulama
- Vergi Kimlik Numarası Sorgulama

Lütfen bir işlem seçiniz Lütfen bir işlem seçiniz Lütfen bir işlem seçiniz Lütfen bir işlem seçiniz...

- E-Beyanname
- Btrans
- Kurumlar Vergi Dairesi
- Gelir Vergi Dairesi
- Vergi Kimlik Numarası Sorgulama
- Gecikme Faizi Hesaplama
- Gelir Vergisi Hesaplama
- Motorlu Taşıtlar Vergisi Hesaplama
- Motorlu Taşıt Sorgulaması
- Kasko Değerleri
- Yurt Dışı Çıkış Yasağı Sorgulama

Internet Tax Office

• Taxpayers spend less time to follow their information without visiting tax offices and spending less time at tax offices

• All the information which was difficult to receive directly from tax office is available from Internet Tax Office

•Taxpayers can monitor and control the related transactions

Components of Information Society

Information Society

e-government

E-institution   E-institution   E-institution   E-institution

Increased quality of government services

More precise and error free registration

Preventing data duplication among institutions

Closer relationships with citizens

**Providing fast and higher quality service for citizens**
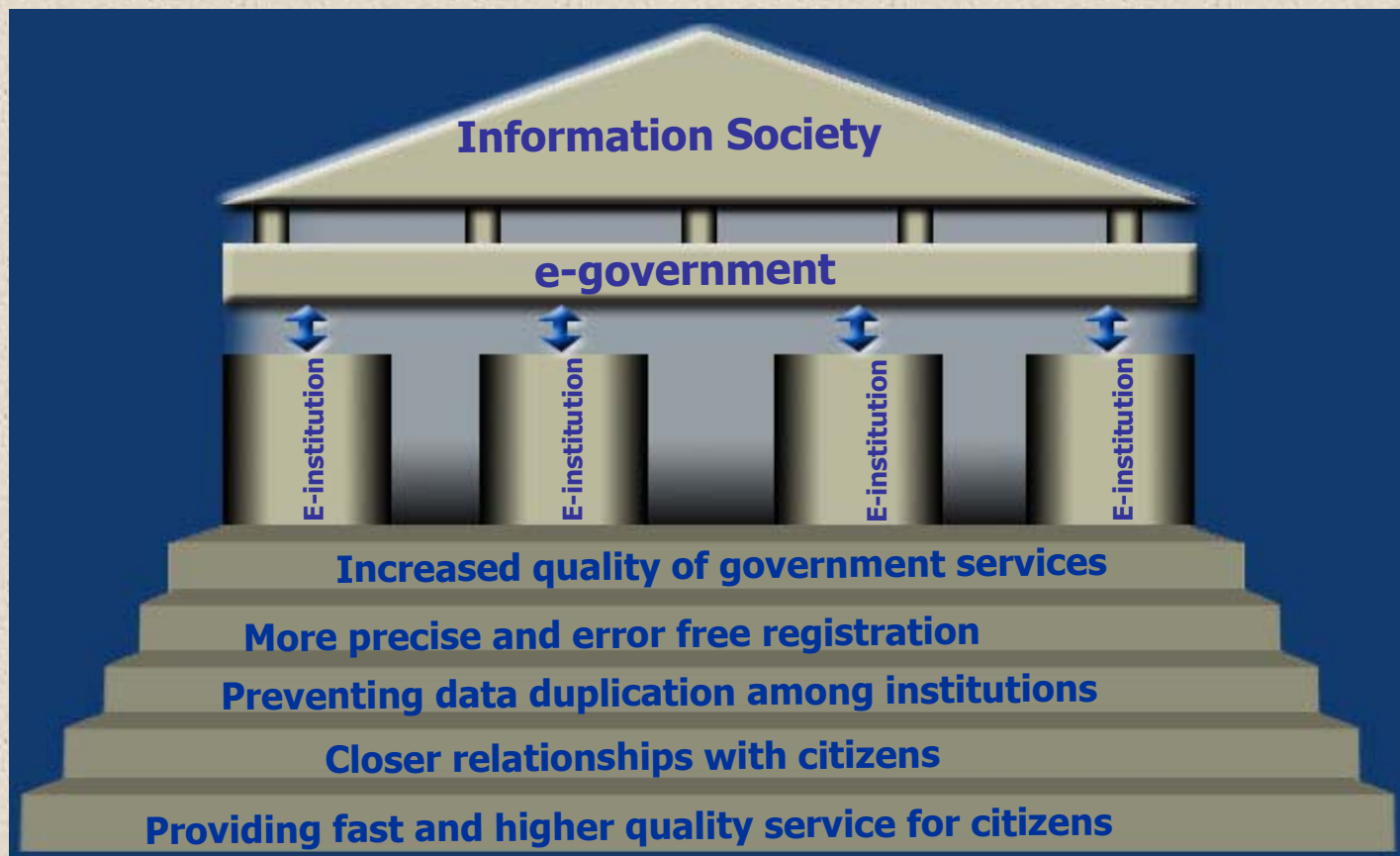
e-institution

- Integrated information system
- Transfering the institutional data to electronic media
- Decision Support and Management Information Systems
- Communication infrastructure : Intranet
- Personnel with computer literacy

e-government

- Interoperability with other institutions' systems
- Citizen oriented
- Institutional portal

Basic Components of Information Security

- **Confidentiality** :Securing data and resources

- **Integrity:** Preventing the data to be changed by unauthorised users during the storage and transmission via electronic media

- **Availability:** Continious provision of services to authorized users
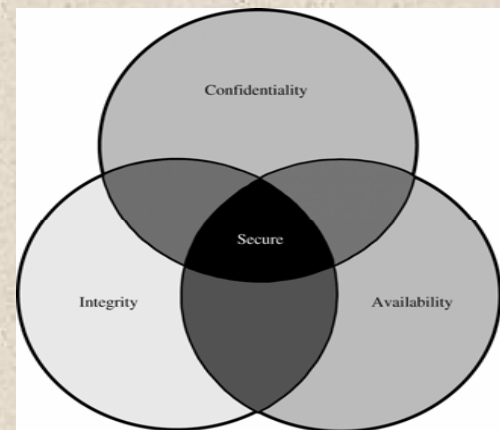
Security Infrastructure

- Securing proper usage of confidential data concerning taxpayers.

- While restricting unauthorized access, allowing the authenticated users.

- Providing infrastructure for secure data exchange among institutions.

Security Infrastructure

Technical Measures

- Firewall

- IDS & IPS
    - Network and host based

- Antivirus system

- E-mail firewall

- Content filtering

Security Infrastructure

Technical Measures

• Proxy (web access)

• Reverse proxy (for external applications)

• SSL accelerators

• Physical security
  • Smartcard based access control
  • CCTV
  • Fire alarms and extinguishing system

• Server certificate (web site ID verification)

Security Infrastructure

Managerial Measures

• Information Security Policy Document

• Information Security Operational Procedures

• Information Security Risk Audits

• Information Security Tests

• Information Security Personnel

Data Exchange Infrastructure

	Technology	Examples
Data Description Language	XML	Emkas, e-declaration, Btrans
Metadata Description Language	XSD	Emkas, e-declaration, Btrans
Data Transfer	XSL	Emkas, e-declaration, Btrans
Data Design Language	UML	All Applications
Data Standards	GovTalk processes	Turkish Police and MERNIS
XML Digital Signature	XML-Signature Syntax and Processing (XMLsig) as defined by W3C	Digital Signature Law and Legislations
XML Cryptography	Decryption Transform for XML Signature as defined by W3C	Digital Signature Law and Legislations
XML PKI	XML-Key Management Specification (XKMS 2.0) as defined by W3C	Digital Signature Law and Legislations
XML Authorization and authentication	SAML	Eyeks
XML Access Control	XACML	Eyeks

MIS
Management Information System

Management and auditors have access to taxpayer related information

- payments
- accruals
- follow-up files
- declarations
- address and corporate information
- legislation

MIS
Management Information System

• Monitoring transactions of the tax offices (collections in certain periods)

•Examining all the data under automation

VEDOP
MERKEZİ SORGULAMALARI

MÜKELLEFİN BAĞLI OLDUĞU VERGİ DAİRESİ BAZINDA SORGULAMA

- Performans Derecelendirme Bildirimi Görüntüleme
- Form BA BS Analizi
- Belge Basım Bilgileri Görüntüleme
- 347 No'lu Tebliğ Uyarınca İnternetten Girişi Yapılan Belgelerin Görüntüleme Ekranı
- Toplam Bazında Tahakkuk Sorgulama (Eski Otomasyon bilgileri dahildir)
- Toplam Ba...........t Sorgulama (Eski Otomasyon bilgileri dahildir)
- Tahakk...
- KDV İa...
- Muhtasa...
- Tahsilat Sorgulama
- Özel Tüketim Vergisi Bildirimi Sorgulama
- Takdire-Sevk Sorgulama
- Tarhiyat Sorgulama
- Beyana Çağrı Sorgulama

Human Resources

Personnel

Manager	14
Engineer	2
Programmer	67
Data input operators	250
Other	149

Outsourced Services

Engineer	60
Technical Personnel	122

VIES - VAT Information Exchange System

● Data exchange with XML

● TCP/IP based data communication

infrastructure

● WEB based software development with

JAVA

● Data Exchange with MERNİS, banks

and other institutions

Ongoing Projects

- Business continuity

- Disaster Recovery Center

- Widening web based application

- Automation of Accounting Offices

- Call center infrastructure for all services

- Voice over IP application

- Video conference infrastructure

- e-learning system