

Aviv Project



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Agenda



- Aviv project - characteristics
- HP's responsibilities
- Description of Aviv registry system
- Demo – person's folder in Aviv
- Elections and arm management systems
- External customer's services
- Management Information system
- Data conversion
- Implementation
- Operation and outsourcing
- Near future extensions

Aviv project



Customer : Ministry of Interiors of Israel

- Total Israeli population : 7M
- Number of tourists per year : ~2M
- Foreigner workers : ~0.5M
- Aviv project serves:
 - ✓ 850 MOI users over 55 sites
 - ✓ 700 External customers receiving batch services
 - ✓ 1,000 on-line external users from 100 organizations
- Operational since 1999

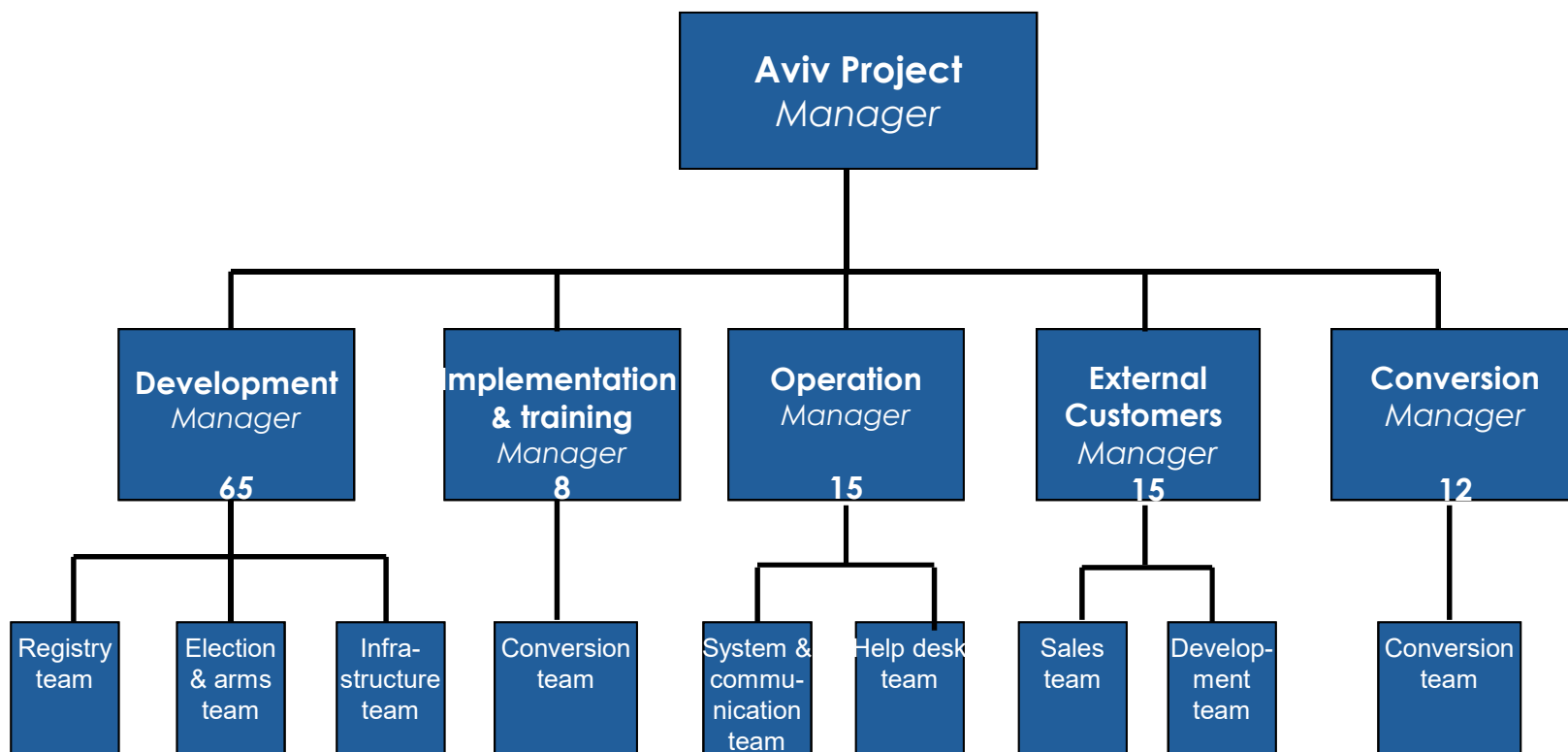


Aviv time table



- Contract signed 05/1993
- Functional Design 06/1993 - 12/1994
- Development 01/1995 - 06/1996
- Acceptance tests 07/1996 - 01/1997
- User's Training 04/1997 - 06/1997
- Data migration 07/11/97-16/11/97
- Deployment 17/11/97-10/12/97

Aviv organization chart 1995-1997



Aviv project – Success story



- The data conversion from old system to Aviv was perfect (no faults were found)
- Transition from old system to Aviv was implemented in 3 weeks including 38 offices
- The system is working smoothly for 10 years
- The Ministry of Interiors is highly satisfied (excellent customer satisfaction survey results)

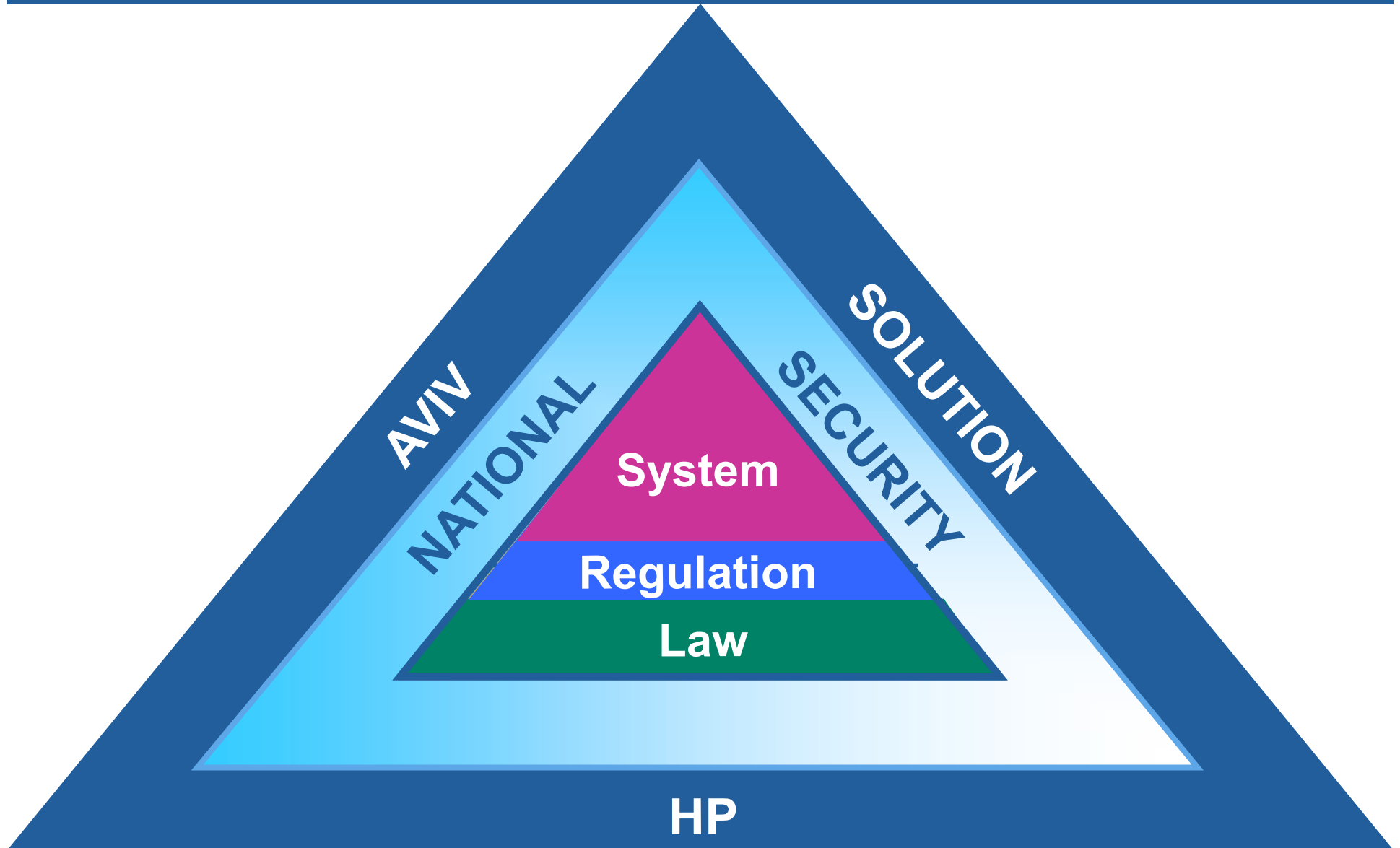
Due to our proven success the Israeli Government signed a contract for Aviv extension until 2009.

Aviv project – System characteristics



- National Core system
- Critical
- One system – many functionalities
- Advanced security measures
- High availability
- High service level to citizens
- No down time – 24 hours service
- Supports changes of laws and regulations
- Solution based on unique knowledge and experience

Aviv solution

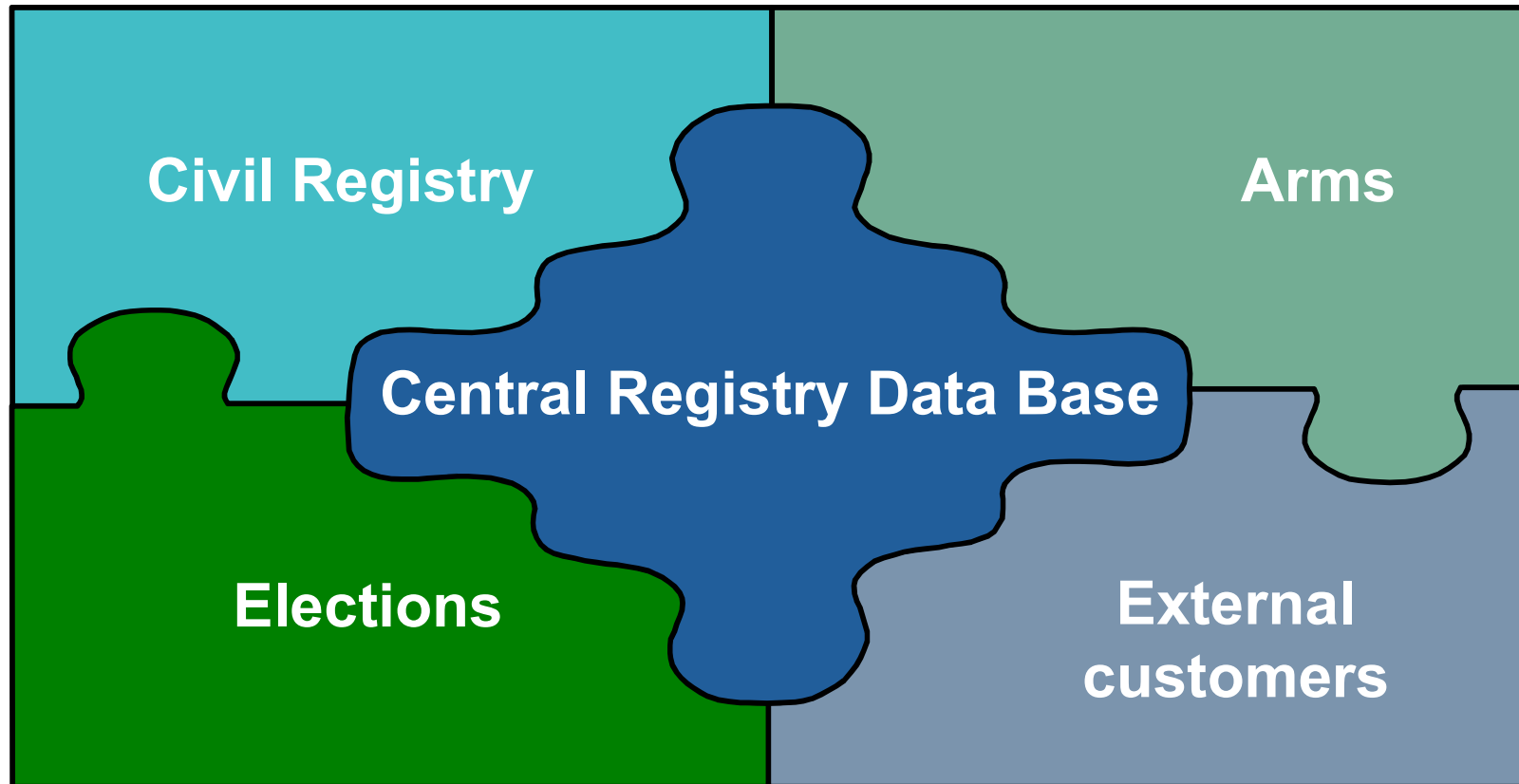


Aviv project – HP's responsibilities



- Database conversion & verification (*customer's old system to the Aviv system*)
- Process design & characterization
- System design & characterization
- Applications functional design
- Applications development
- Network and infrastructure design & implementation
- Establishment of Aviv computer center
- Installations
- Training
- Implementation and integration
- Support
- Help desk services
- Full outsourcing and operation mode of work

Aviv project- National Registry



Registry System



Registry of:

- Citizens
- Residents
- Immigrants
- Foreign workers
- Tourists



National secured documents



- ID Cards
- Passports and other travel documents
- Visas
- Resident's card
- Foreigner's card
- Work permit

Document management



- Application: new, renewal, replacement, update
- Payment
- Issuance only after payment
- Issuance Control over Travel document
 - Reason for Issuance
 - Fate of previous document
 - Log of production - user, site, date
- Follow-up and audit of national documents
- Machine readable Passports and Visas
- Smart ID Card – in tender process

Certificates management






- Birth certificate
- Death certificate
- Marital and divorce certificated
- Certificates regarding citizenship
- Address inquiry
- Traveling certificate
- All other registry certificates

Security compliance (only registered data printed, all history of issuance kept, printed after payment)

Personal Registry information - major components



-  Unique ID Number
-  Passport number
-  Picture
-  Demographic data
-  Family relations
-  Address
-  Marital status
-  Citizenship
-  Border control

Registry System – Processes (batch and on-line)



- Birth registry
- Death registry
- New Immigrant registry
- New resident registry
- Marriage and divorce registry
- Address update
- Names update
- Picture capturing/update
- Application management
- Border control
- Foreigner's employment

Registry System – Security highlights



- Operation based on the Israeli law
- Full registry history stamp for each data field :
 - registry date & time*
 - validity date*
 - user responsible for update*
 - office where the update was initiated*
 - approved reason*
- No physical deletions
- Detailed authorization system (field & update type resolution)
- Escalated restrictions system (including stop list)
- Data flaws



ID No **024413379**

Surname **SHAPHIR** First Name **LIORA** Date of Birth **10/06/1969**

ZIP **94141** App **11** Ent **15** No **15** Street **JAFFA** City **JERUSALEM**

[Previous](#)[Add](#)[Cancel Link](#)[Request](#)[Add Restriction](#)[Update](#)[Additional Docs](#)[Search](#)[More Info](#)[History](#)[End](#)[Link to Folder](#)

1 Base

District **JERUSALEM** Office **ASHQELON**

2 Additional

Father's Name **ZVI** GrandFather

3 Citizenship

Mother's Name **[REDACTED]** GrandFather

4 Family

Place of Birth **NETANYA** **LANIADO** **HOSPITAL**

5 Spouse

Marital Status **MARRIED** Sex **FEMALE**

6 Passport

Nationality **JEWISH** Citizen **Y** Citizenship code **03**

8 Death

9 In/Out

Previous Surname **KALEB** Previous NameMaiden Name **KALEB**Names Valid From: First Name **01/09/1993** Surname **[REDACTED]** Phone No: **[REDACTED]**Last Printing Date: ID Card **10/11/1993** Details **[REDACTED]**

ליקוי חמור

ליקוי כללי

Exit

Back

Docs

Objections

Payment

ID card

ID Details

Log

Requests

- Elections
 - ✓ Election book management
 - ✓ Voter's cards
 - ✓ Nominees and supporters
 - ✓ Funding
 - ✓ Vote counting

- Arms management
 - ✓ Private licenses
 - ✓ Companies licenses
 - ✓ Shops & shooting ranges

External Customers services

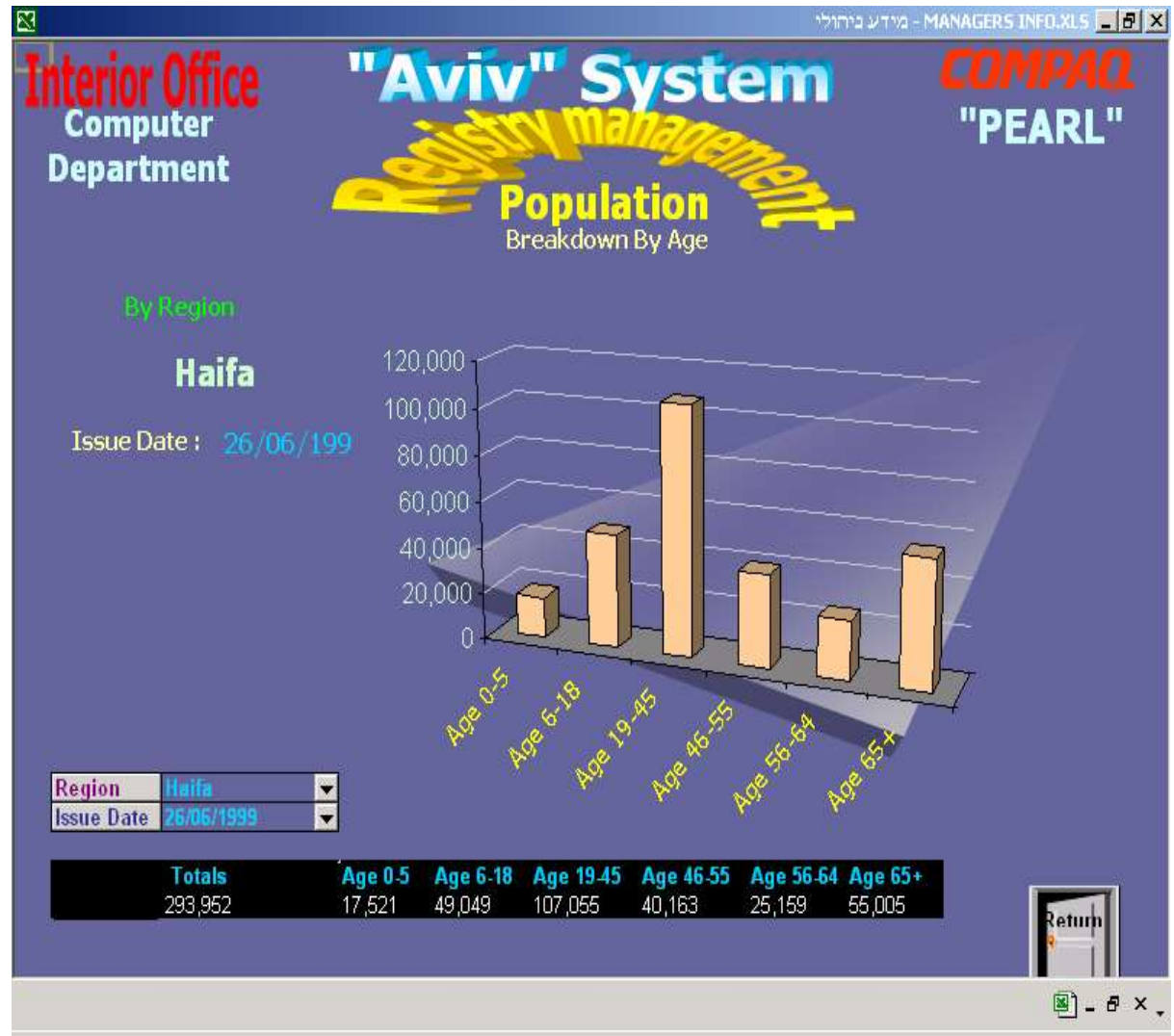


- Varied services to: other ministries, police, banks, hospitals, lawyers, insurance companies etc
- Varied on-line inquiries as authorized by the Ministry of Interiors
- File transfers and updates (daily, weekly, monthly)
- Data verifications

Management information system



management
control
at all levels

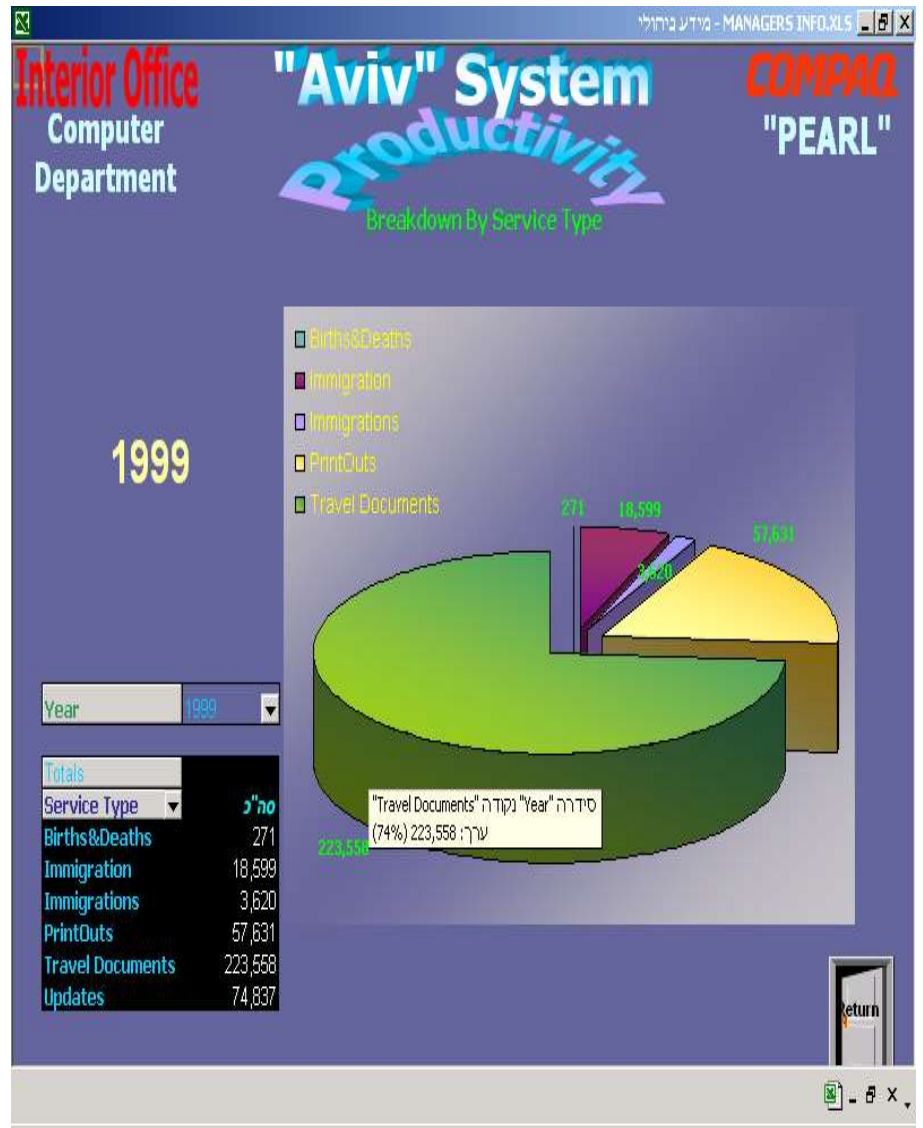


Management information system



- **Statistic of:**
 - ✓ Population
 - ✓ Documents and certificates
 - ✓ Services
 - ✓ User's productivity
 - ✓ Cash-flow

- **Various levels**
 - ✓ Country
 - ✓ Region
 - ✓ Site
 - ✓ User
 - ✓ Year / month/ day



Data conversion



- Conversion from IMS and VSAM to Ingress Data Base (in 2006 we have migrated to Oracle)
- Totally different logic and data base structure
- Included: registry, ID cards and certificates, Passports,
 - border control, foreigners, elections, arms registry, log files
- Data in old system had many errors and inconsistencies
- Data verification could not be done separately
- Minimum down time for conversion

Data conversion - guidelines



- No data loss
- Very detailed design of data conversion and verification – expertise needed
- Full cooperation with the Ministry of Interiors IT manager and consultants
- Found automatic solutions to most problematic cases
- In cases of automatic “bettering” – kept record of original data
- In cases where data could not be converted – keep record in special error files

Implementation



Before operation

- One week training to each user
- Special trainings to managers
- Special training to IT trustees
- Infrastructure installation

During implementation

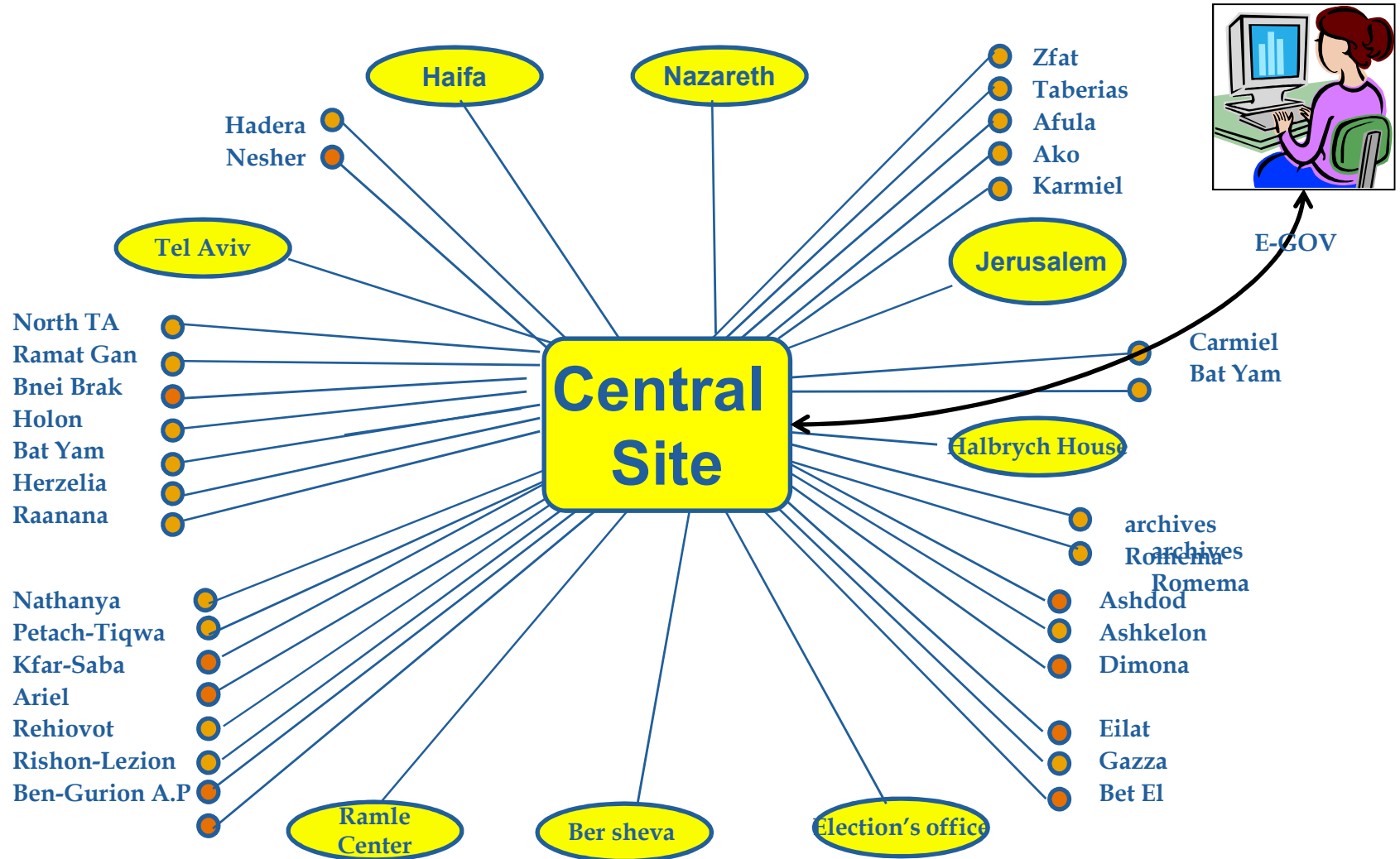
- Hardware change during night
- 1 day of guided work (closed to public)
- Regular work

Business drivers for Aviv outsourcing



- No available budget for development and infrastructure
- No headcount for IT staff in the Ministry of Interiors
- Investment pay-back by selling services to external customers
- Global responsibility – one point of contact

Aviv network



Aviv operation and outsourcing



- HP's Hardware and infrastructure
- HP's operation and maintenance team
- Operation 24 hours according to SLA
- Central help desk
- Maintenance of hardware, infrastructure, application
- Annual growth of sites and users
- Operation of election systems
- Adjustments to changes in law

Only Ministry of Interiors users update registry data

Central Database – distributed service



- Central Database
- On-line registry
- Service given at all offices
- Documents and certificates can be issued on-line
- Certificates can be issued by users in personal printers
- Receipt automatically printed
- Image capturing can be done by all MOI officers in reception desks

- Highly secured system
- User's Identity management using Government employees Smart cards (Tamuz)

Aviv extension projects

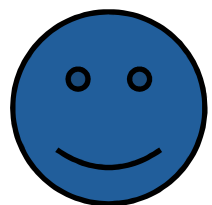


- Image and biometric capture in all branches
- Smart ID card – in tender processing
- e-Passport

Lessons learned



- Application design must be made together with end users
- Conversion must include at least one “general rehearsal”
- It may be safer to minimize the migration phase and not to work in parallel
- System must be flexible and easily changed



Thank you



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