



California

**STATE BOARD
OF EQUALIZATION**



**Federation of Tax Administrators
Technology Conference
August 13, 2001**

1



Background

- The BOE was established in 1879 by constitutional amendment
- The BOE administers 25 different tax and fee programs
- Nearly one million registered businesses
- Approximately 3.4 million tax returns filed remitting over \$33 billion in revenue annually

2



Goals of the *e*-filing project

- Provide an additional filing channel for Taxpayers
- Capture return data as efficiently as possible
- Reduce data transcription errors
- Eliminate redundant key strokes

3



System Features

- On-Line filing of Sales and Use Tax returns through use of secure internet technologies
- Processing of ACH debit payments
- Return & payment warehousing
- Real-time return filing and filing confirmation

4



Eligible Taxpayers

- Sales and use taxpayers with one location
- Includes taxpayers presently filing forms 401-EZ and 401-A without additional schedules (excludes prepayment filers)
- Approximately, 700,000 taxpayers eligible

5



Project Principles

- Reuse of components of Corporate Database
- Use BOE standard development methodology
- Design flexibility for direct taxpayer or BOE developed *e*-filing in the future

6



Project Principles Cont.

- Accept for processing anything that could come in on paper
- Allow taxpayer to file for any open period, including delinquent periods
- Take advantage of electronic medium
- Store original XML document as the “official” return filing

7



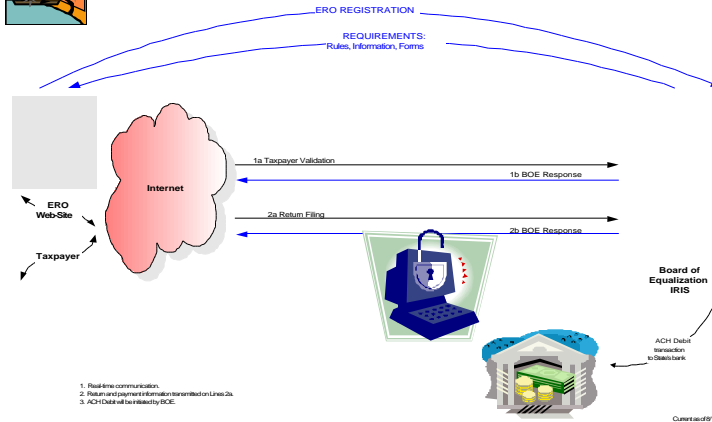
Project Principles Cont.

- Relate the XML document to our Corporate Database via the confirmation number as a foreign key
- Make the system “Self Correcting”
- Use standard non-propriety internet protocols
- Provide secure connection, with multiple levels of security

8



Conceptual Design (Architecture)



9



Architecture

- HTTPS Posts via the Internet
- XML for message format
- Web Server for security checking and message routing
- Application Server for XML parsing & XML storage
- Mainframe Corporate Database for validation, processing and storage

10



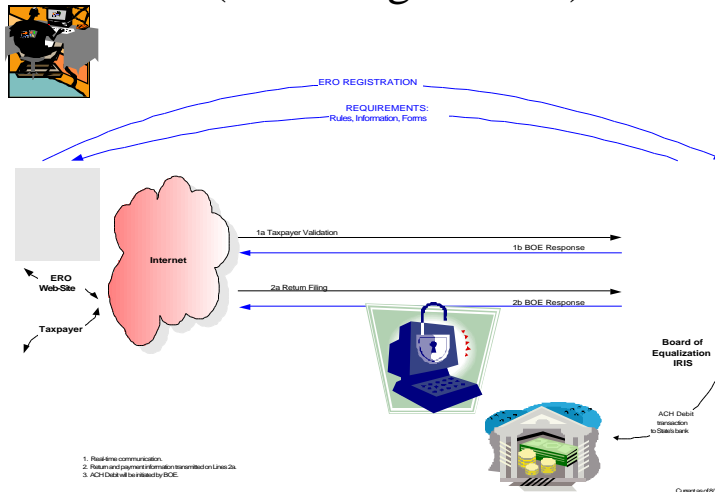
Security Components

- User ID/Password authentication
- 128-bit encryption
- Secure Socket Layer Version 3 protocol
- Internal and external firewalls
- Intrusion detection software

11



Conceptual Design (ERO Registration)



12



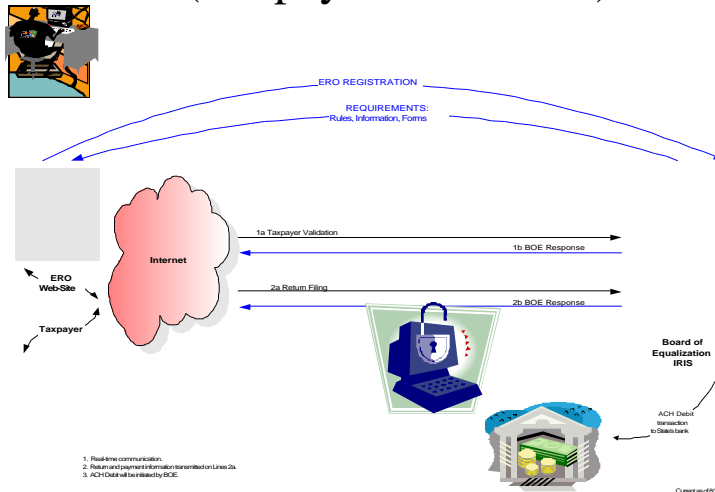
Processing (ERO Registration)

- ERO registers with BOE
- BOE provides detailed system specifications (business rules & technical requirements)
- ERO develops front end components
- ERO/BOE conduct fitness testing
- ERO is certified for *e*-filing

13



Conceptual Design (Taxpayer Validation)



14



Message 1a

- Taxpayer registers with ERO to *e-file*
- Non XML
- Used to validate taxpayer eligibility and to retrieve filing information
- Taxpayer is validated using existing Corporate Database components

15



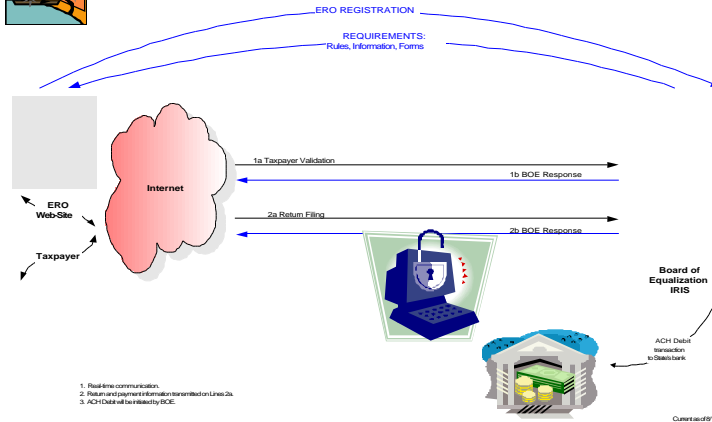
Message 1b

- Retrieved taxpayer information including:
 - filing period
 - due date
 - tax rate
- Data is returned to ERO in XML format

16



Conceptual Design (ERO/Taxpayer)



17



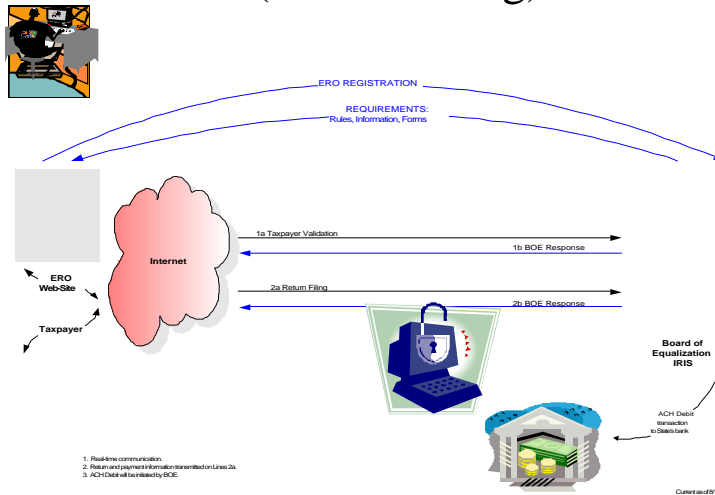
Taxpayer Interaction with ERO site

- ERO can pre-populate filing information from 1b
- Taxpayer begins entering return information
- Taxpayer can enter information at their convenience across multiple sessions
- Return and payment information are captured
- Upon completion taxpayer transmits their return

18



Conceptual Design (Return Filing)



19



Message 2a

- ERO timestamps the return
- Formats the information into XML
- Posts the XML document to BOE
- A program on the application server parses the XML document and passes the return and payment information to the corporate database
- The information is validated and stored in the corporate database

20



Message 2b

- A confirmation number is generated and returned to the applications server
- The program on the application server
 - appends the the confirmation number to the XML return document
 - stores the document in an XML database
 - formats an XML confirmation document
 - returns filing confirmation to the ERO

21



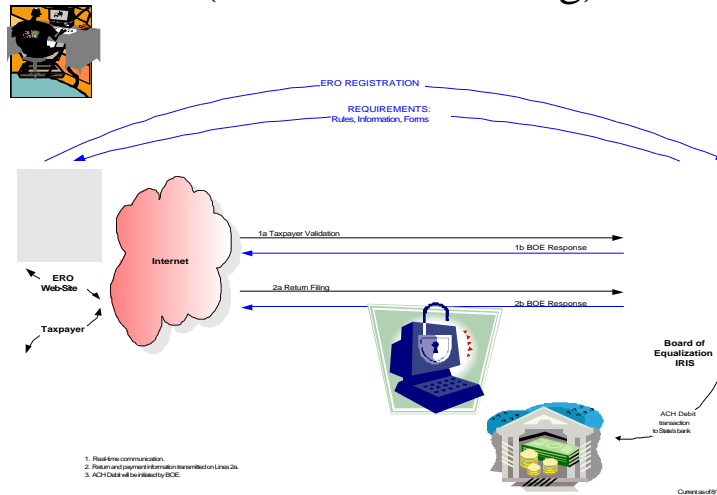
Filing Completion

- ERO Displays confirmation number to the taxpayer
- Taxpayer has met filing deadline
- BOE has return/payment information for normal processing
- All taxpayer interaction is completed in real-time

22



Conceptual Design (Normal Processing)



23



BOE Normal Processing

- Normal return processing (edits and computations, and validation)
- Payment warehousing
- XML return document available for viewing (style sheet)
- Information available for query
- All processes lights out

24



e-Future

- *e-Filing Expansion*
- *e-Registration*
- *e-Account Maintenance*
- *e-Payment*