

Electrabel 

suez

electronic Confirmation Matching and EFETnet: The Electrabel story



<http://www.ponton-consulting.de/efetbox/>



<http://www.efetnet.org>

11 October 2007



- ❖ EFETbox Implementation (first production version)

 - EFETbox Architecture

 - Back-end Interface

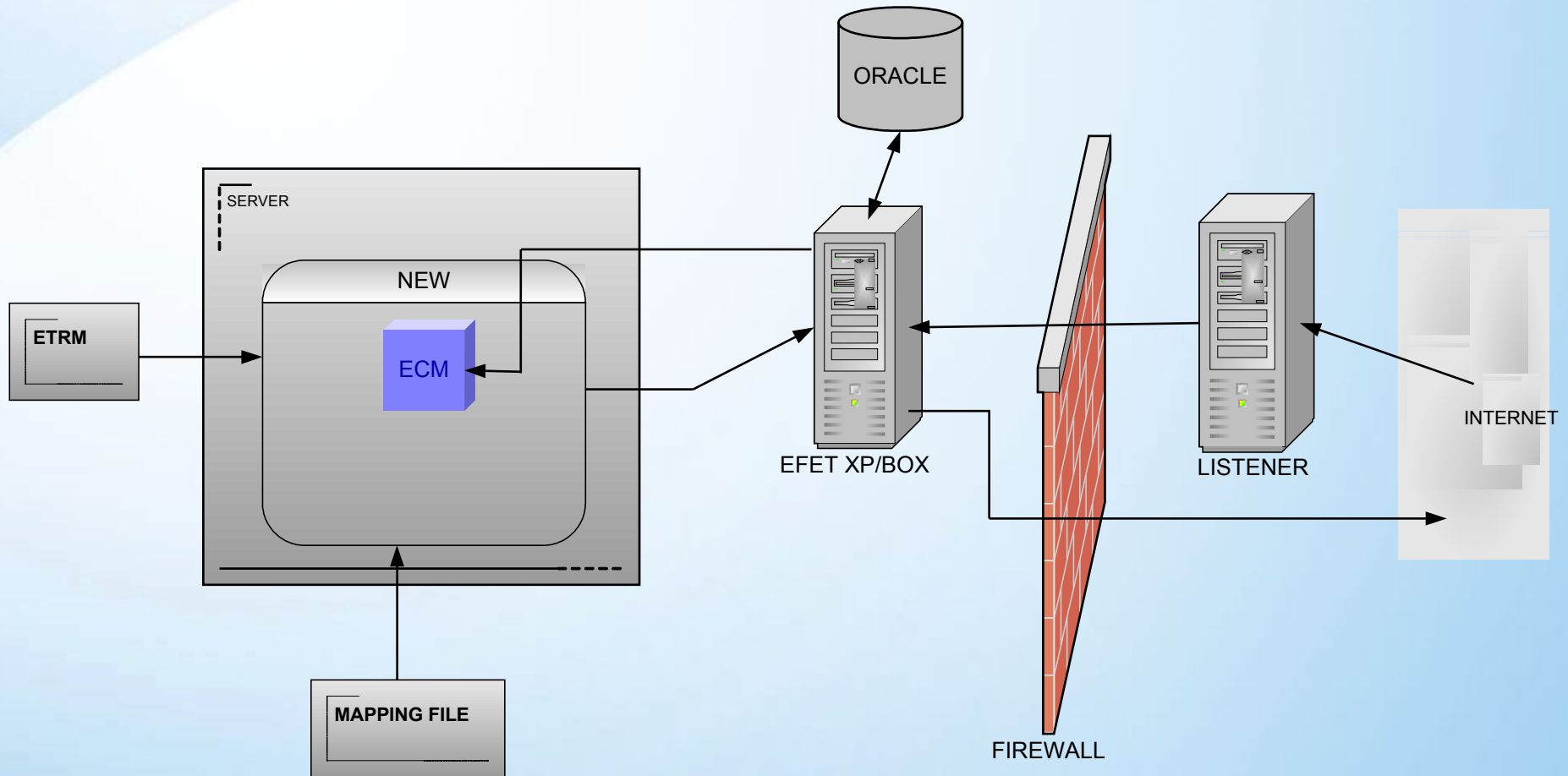
 - Lessons learned

- ❖ Ponton Software: Architecture & Security

- ❖ EFETbox Implementation (Final Production version)



EFETbox Architecture (first version)



Back-end Interface (first version)

- Standalone application
- Manual querying
- Manual stamping in ETRM
- Mappings in application



*Copy to EfetBox
hotfolder*

The screenshot shows the "Document Extractor" application window. It features a menu bar with "File", "Efet Tools", and "Zainet Tools". Below the menu is a "Normal" tab. The main area is divided into several sections: "Document Info" with dropdowns for Document Type (CNF), EFET Standard (3.2), Document Version (1), and Document Usage (Live); "Search on ticket Number" with radio buttons for "Ticket Number" and "Z-Key"; "Search on criteria" with dropdowns for Counter Party (PWRWE), Broker (BRSPECSERV), Commodity (NG), Type (P), Delivery Point (NBP), and Market (UKGAS); and date fields for "Delivery between" and "Trade between". At the bottom right, there are buttons for "Select All", "Query", and "Generate", along with a checkbox for "Fetch archived deals?".

| Number | Genera... | Arch | Overview | | | |
|--------|--------------------------|--------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------|
| 1 / S | <input type="checkbox"/> | <input type="checkbox"/> | Ticket : EGS062 Commodity : NG Total Volume : 25000.00 Trade date : 04-10-2007 | Zkey : 8969495 Market : UKGAS Capacity : 25000.00 Delivery start : 05/10/2007 - 06:00 | Counterparty : PWRWE Location : NBP Currency : GBP Delivery end : 06/10/2007 - 06:00 | Broker : BRSPECSERV Status : V Price : 34.500 |
| 2 / S | <input type="checkbox"/> | <input type="checkbox"/> | Ticket : EGS110 Commodity : NG Total Volume : 25000.00 Trade date : 04-10-2007 | Zkey : 8969495 Market : UKGAS Capacity : 25000.00 Delivery start : 05/10/2007 - 06:00 | Counterparty : PWRWE Location : NBP Currency : GBP Delivery end : 06/10/2007 - 06:00 | Broker : BRSPECSERV Status : DBQMT Price : 34.500 |



Query



EFETbox Implementation (first production version)

Lessons learned:

- ✓ Integration the EfetBox in existing business process
- ✓ Excellent preparation for the final production project
- ✓ Knowledge build up within IT – Support and Business
- ✓ Definition of future roles (who will do what)
- ✓ eCM superseedes by far the old fax confirmation process
 - ✂ → Roll back is not an option!
- ✓ Further automation is inevitable due to rising eCM matching volumes:
 - Inline with quality control process
 - Automatic routing
 - Configurable routing
 - Alignment eCM process ← → Deal Confirmation process
 - Flexible updating of mappings.
 - Support for different versions of the eCM standard
 - Support for Historic testing



- ❖ EFETbox Implementation (first production version)
- ❖ Ponton Software: Architecture & Security
 - Ponton Software
 - Architecture Layout
 - Ponton X/P: ebXML Implementation
- ❖ EFETbox Implementation (Final Production version)



3 Components:

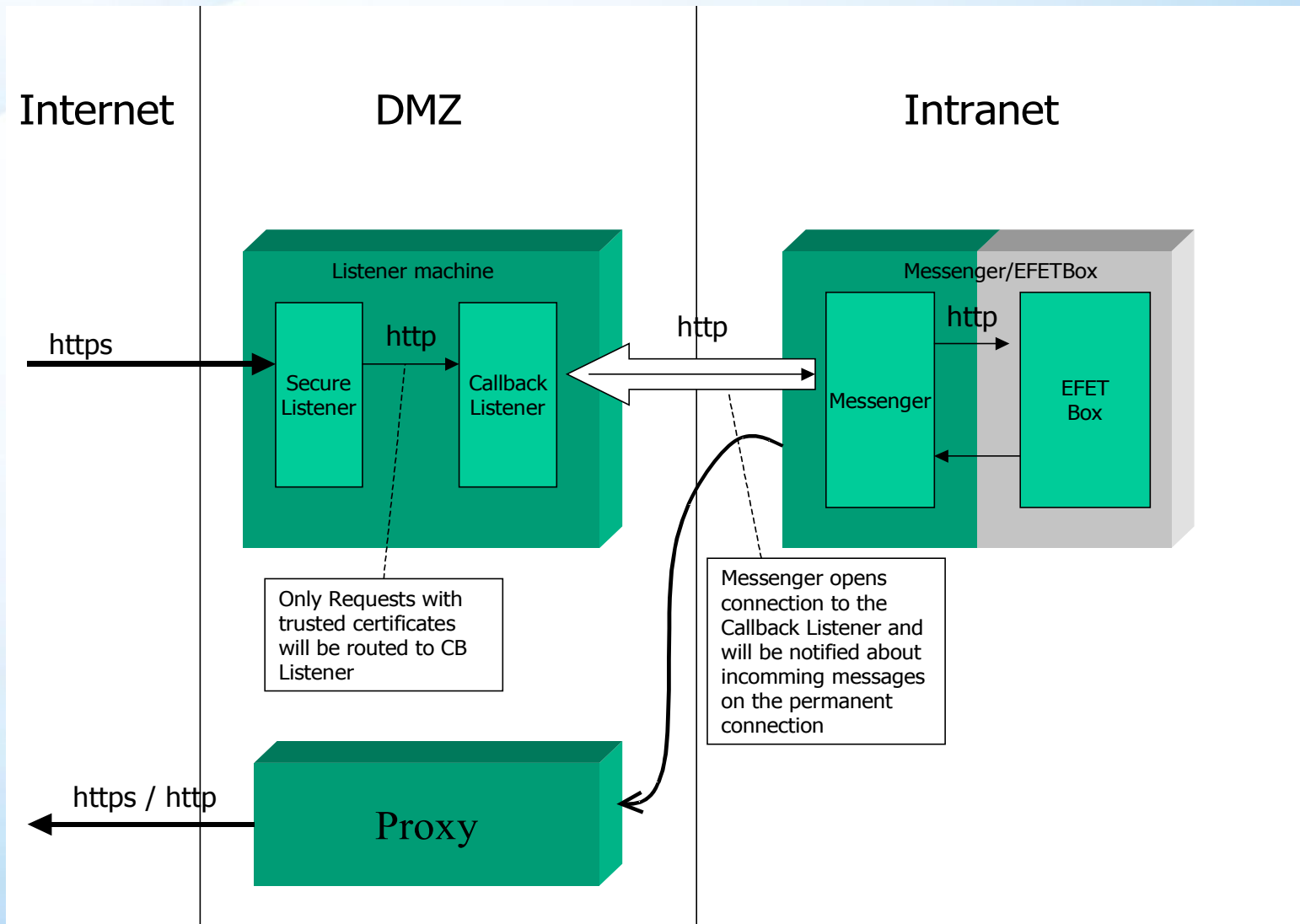
- ✂ Ponton X/P (ebXML message handler)
- ✂ EfetBox (3.x Standard & matching)
- ✂ Secure Listener (Incoming connections)

Designed for:

- Easy setup (install & run)
- Secure setup (communication & message level)
- Easy Configuration (Via browser: No intervention on the machine itself)

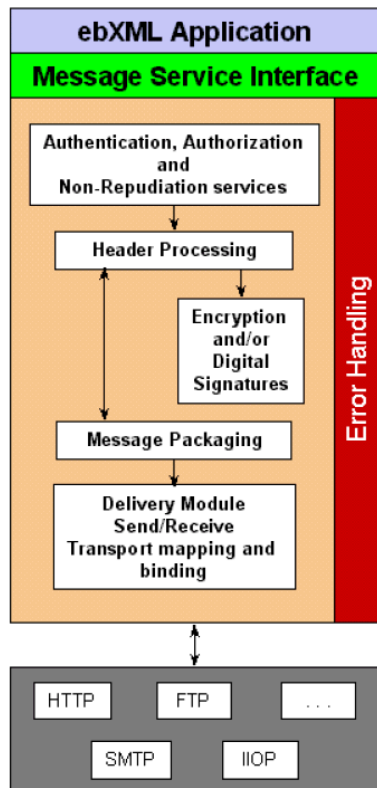


Architecture Layout



Ponton X/P: ebXML Implementation

For secure, reliable, robust, fault-tolerant and amendable matching transactions between counter parties.



ebXML Message Service Architecture

- Header processing
- Header Parsing
- Security Services
- Reliable Messaging services
- Reliable Messaging services
- Message Service Interface
- Reliable Messaging services
- Message Packaging
- Error handling

Payload Processing: (Outbound order)

1. XML validation
2. Signing of payload
3. Compression
4. Encryption of payload

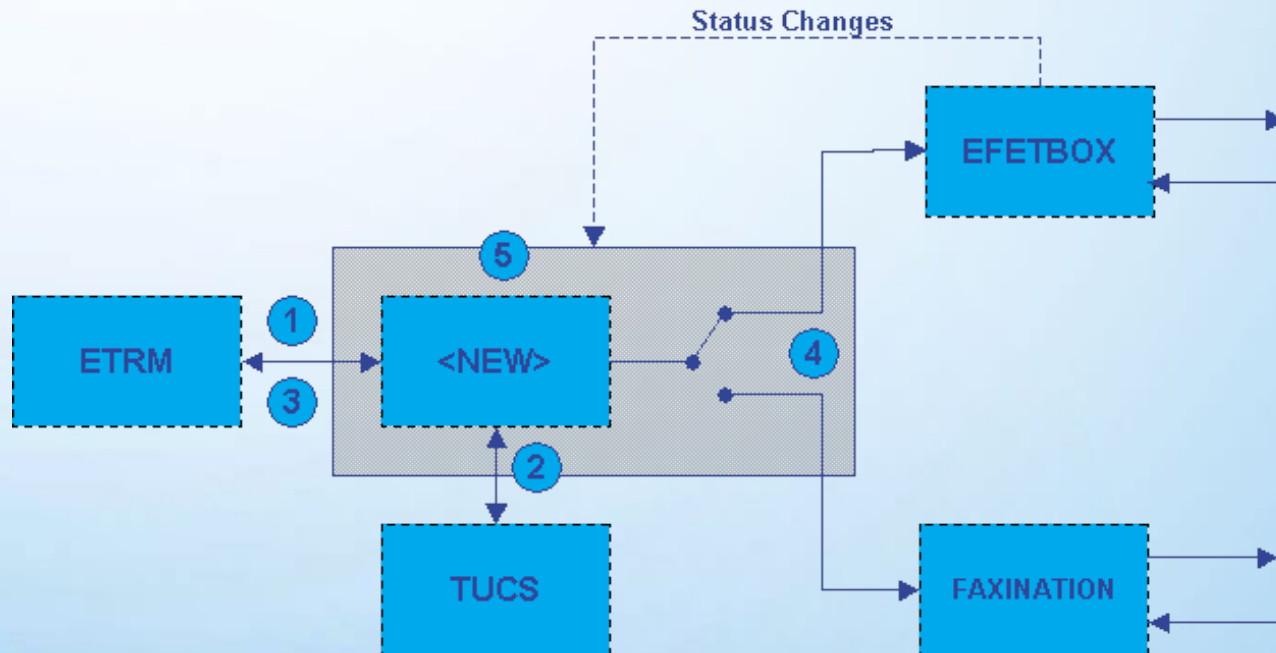


- ❖ EFETbox Implementation (first production version)
- ❖ Ponton Software: Architecture & Security
- ❖ EFETbox Implementation (Final Production version)
 - General architecture: overview and concepts
 - EFETbox Implementation
 - Confirmation Routing
 - Backend Interface logging
 - Process: eCM → ETRM
 - Organizational aspects
 - Why KEMA Certification ?
 - Lessons learned

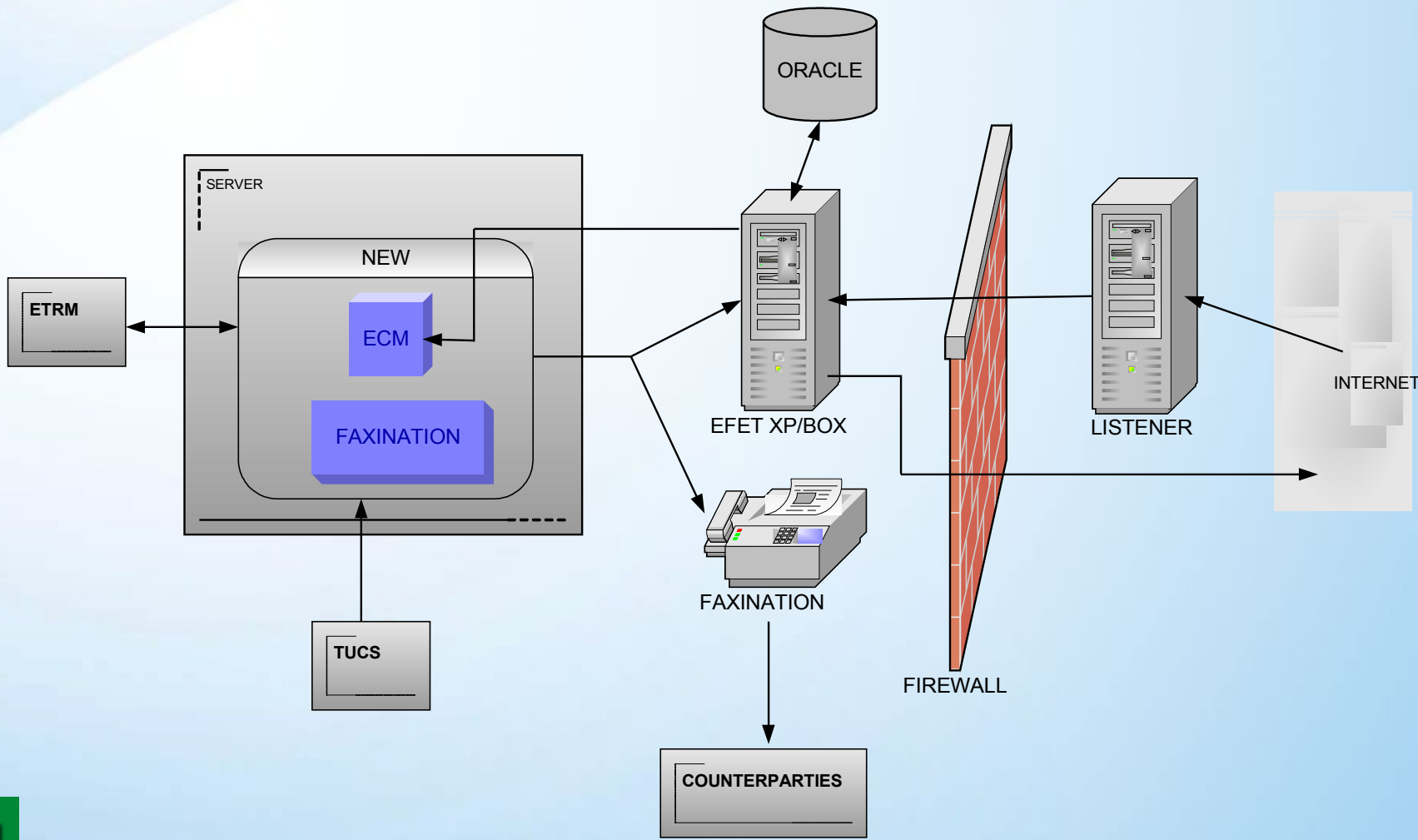


General architecture: overview and concepts

- EFETbox linked to ETRM system (hence and forth)
- Generic extraction tool to link ETRM to EFETbox (ETRM-independant technology)
- Static data availalbe outside of ETRM tool (TUCS)
- Extraction tool embedded in router application, to integrate electronic confirmations with traditional fax/faxination based concepts



EFETbox Implementation (final production version)_



eCM Confirmation Routing

RWE trading:

| Confirmation routing | | Current EFET Status: Active | | |
|----------------------|----------|------------------------------------|------------------|-------------------|
| Commodity | Deatype | Market | Deliverypoint | Confirmation type |
| Power | Physical | ALL | ALL | EFET 3.2 |
| Gas | Physical | ALL | ALL | Fax |
| Gas | Physical | GB | 21YGB-UKGASGRIDW | EFET 3.2 |
| Power | Physical | GB | ALL | Fax |
| CO2 | Physical | ALL | ALL | EFET 3.2 |

Spectron:

| Confirmation routing | | Current EFET Status: Active | | |
|----------------------|----------|------------------------------------|------------------|-------------------|
| Commodity | Deatype | Market | Deliverypoint | Confirmation type |
| Power | Physical | ALL | ALL | EFET 3.2 |
| Power | Physical | GB | ALL | EFET 3.2 |
| Gas | Physical | ALL | ALL | Fax |
| CO2 | Physical | ALL | ALL | EFET 3.2 |
| Gas | Physical | GB | 21YGB-UKGASGRIDW | EFET 3.2 |
| Gas | Physical | BE | 21YBE----ZBT---F | EFET 3.2 |
| Gas | Physical | NL | 21YNL----TTF---1 | EFET 3.2 |



eCM: Backend Interface logging

ECM Tool Legal Notice Glossary Site map

Admin Logging Testing

» Logging » Logging Details » Logging Details

Logging Details

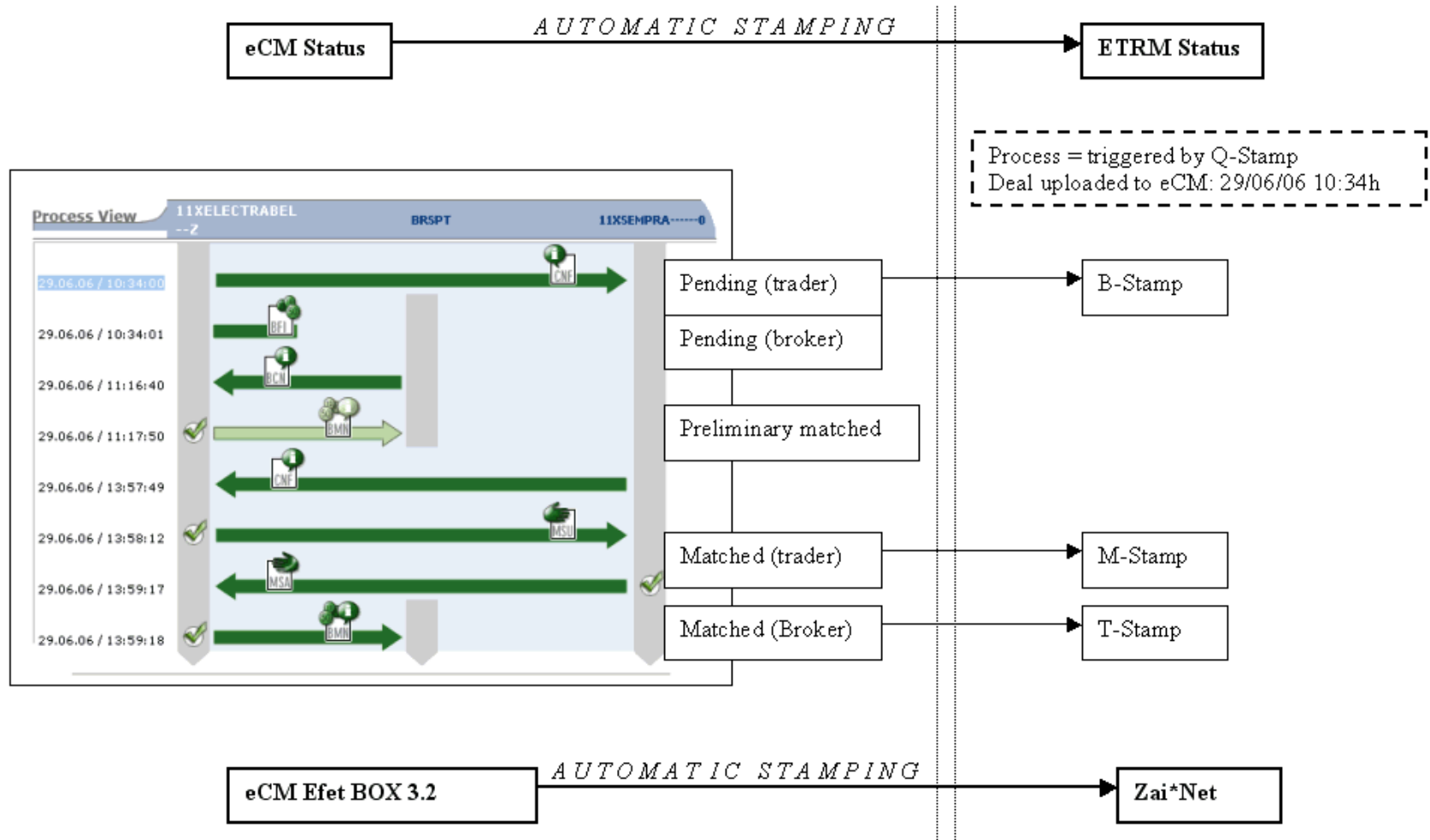
View Deal Ticket: [View Deal Log](#) [Cancel Deal](#) [Amend Deal](#)

| Logging | Date/Time | Doc.Version | Action # | Remark |
|---------|---------------------|-------------|----------|----------------------------------------------------|
| ✓ | 10/10/2007 14:58:57 | 1 | 202 | ETRM Updated:OK |
| ✓ | 10/10/2007 14:58:57 | 0 | 25 | Status +M changed successfully |
| ✓ | 10/10/2007 14:58:51 | 1 | 202 | Boxresult cpty received with status Matched. |
| ✓ | 10/10/2007 11:28:59 | 0 | 24 | Status +B changed successfully |
| ✓ | 10/10/2007 11:15:59 | 1 | 200 | EFET CNF XML File created. (V3.2) |
| ✓ | 10/10/2007 11:15:59 | 1 | 150 | TUCS Counterparty info received.(11XRWETRADING--0) |
| ✓ | 10/10/2007 11:15:58 | 0 | 100 | ECM Tool received deal from ETRM |
| ✓ | 10/10/2007 11:11:22 | | 2 | Deal Q-stamped in ETRM |

User: JAMES DEKEYSER (DEH384)



Backend Interface Process: eCM → ETRM



Organizational aspects

- EFETbox operationally run by Back Office TPM Deal Confirmation team
 - XML confirmation generation
 - Monitoring & follow-up
 - Feedback to ETRM system
- EFETbox technical support by BIM TPM
 - Messenger configuration
 - EFETBOX configuration
 - Backups
 - Support on application level
- Security and server support by ITS
 - Firewall
 - Secure Listener
 - Certificate management
 - Hardware

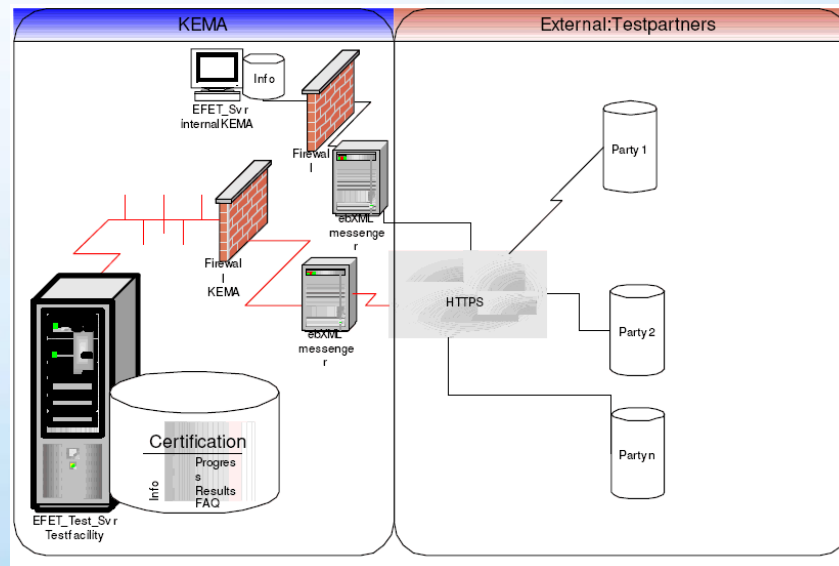


KEMA Certification

→ Test and Certification of Vendors and participants

To Check: Correct implementation of the standard

- Proofs your capability of generating eCM Business documents
- Decreases significantly historic testing efforts
- Improves quality of your back-end interface.
- Increases confidence level by other eCM partners



Lessons learned

➤ Synchronisation between ETRM process & eCM process:

How to handle amendments, cancellations

Example: Counterpart match while broker fee not matched

➤ Educate you Deal Confirmation Team

eCM Standard, basic knowledge of XML, error solving

➤ Add support for Historic and acceptance testing

Give business the appropriate tools

➤ Incorporate reusability in your design

Generic router implementation

Example: Confirming TTF-gas with party A = party

➤ Broker process:

Huge increase eCM confirmation volume - mappings



Questions ?



You've got the energy.

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What brings the future ?



New EfetBox architecture

- Same server – multiple processes
- Consolidated view of process data

