

Shell Exploration & Production

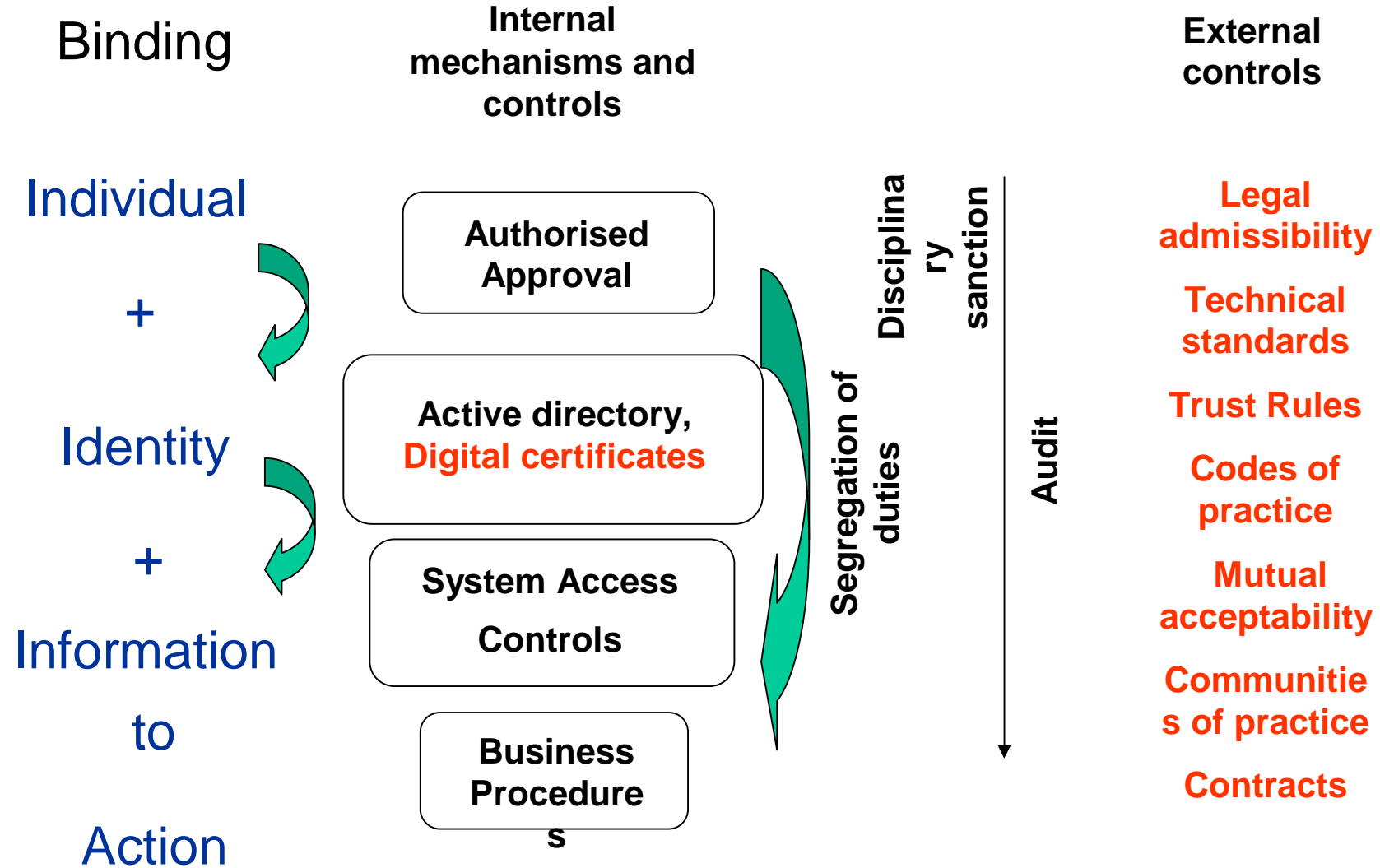
# OECD Digital Identity Management Workshop, May 2007

## Audit requirements and the application of Digital Signatures in Oil and Gas Industry

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# Identity and Business Controls Landscape



## The Business Controls Challenge

- Usage of information systems (applications) managed by User access approvals and controls based upon defined proof of identity
- But how to bind identity to documents
- The burden of proof – What, Who, When
- Managing and identifying the electronic record
- Managing cross borders (corporate or geographical)
- Increasing Corporate Compliance requirements.
  - New demands internal and external
  - When in doubt – ask for more! higher levels of transparency and higher levels of certainty

## The Default Solution – email

- Much of controls & audit trail is email
- Generally legally admissible
- Identity management via the default network registration processes and application sign-on
- Increasing generation of emails and email “document wrappers” to add identity and date
- Consideration (or challenge) to content integrity rare
- Common or transparent standards of identity management are rare

## A better way – Digital Signatures!

- The message originated from the sender – named on the certificate
- Both sender and receiver assured that:
  - message never altered (knowingly or unknowingly) after it was signed (sent)

- Dependent on tight association between the individual and their Certificate (through technology and procedures)



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Dear Sir

**THE OFFSHORE CHEMICALS REGULATIONS 2002  
PON15D FOR SHEARWATER C PUQ PLATFORM**

I refer to your amended application dated 10th December 2004, reference PON15D/91/7 (Version 2).

It has been determined that the proposed changes will not result in a significant increase in the environmental impact of the project, and there are consequently no objections to the changes.

The amended application will now form the basis of your chemical permit, which will remain in force. A copy of this notification will be forwarded to the application consultees.

If you have any queries in relation to this notification or the attachments, please do not hesitate to contact Inger Soderstrom on 01224 254040 or email Environmental Management Team at EMT@dti.gsi.gov.uk.

Yours faithfully

**Signature valid**

Digitally signed by Environmental Section  
Date: January 14, 2005 4:05:14 PM GMT  
Reason: On behalf of the Secretary of State  
Location: Department of Trade and Industry

Inger Soderstrom  
Environmental Manager

3C

Host Discharging Installation: Shearwater C PUQ Platform

Field Name: SHEARWATER

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## Realising the Benefits

- Cross border legal acceptability
- Cross border standards
- Cross company usage
- Cross application usage

### IN OTHER WORDS

- Ubiquity !

## Working to achieve these benefits (In Oil Industry)

- Cross industry vision
- Consultation to build trust and common way forward
- Pan-industry bodies for standards and rules

- Use standard technologies
- Low technical barriers to global adoption
- Scalable solutions

2002-8

- Common business processes
- Starter projects – DTI consents
- Starting small to build experience





## Trust Rules

- Provide single common reference for assuring quality and interoperability
- Primarily aimed at Trust Service Providers and Certification Authorities
- Confidence that baseline set of norms apply
- Applies to certificate and identity
- Independent of technology and application
- Removes an obstacle for accepting certificates

## Oil and Gas Trust Scheme (OGTS)

- tScheme (or equivalent) Approval Profile for Certification Authority
- Verification process must be a minimum of UK Government Registration Level 2
- Signing Key Pair Management
- X509 certificate
- Certificate fields.....

## Example: Certificate implementation in Shell

- Shell has implemented a CA capability to issue Digital certificates implementation. Consistent with OGTS
- Developed and run a Local Registration Authority application, allowing approved Shell subscribers to enrol in the service & manage their keys
- Designed for multiple use – secure email (2006) and document signing (2007)

## Key Challenges

- Selling a compelling business case – where is the tipping point?
- Extending adoption across organisational boundaries
- Adopting the (OGTS) standards - internationally
- Adopting standards across supply chains in different industries
- Leadership and Vision
- International acceptability

## Summary

- Increasing demands for transparent audit trails from electronic documents binding secure content and identity
- eMail filling the gap (by default)
- Digital Signatures could be the future
- The challenges are organisational not technical
- Government leadership/direction appears to make the difference

