tScheme: independent regulation for electronic trust services

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tScheme is

• The industry-led, independent regulator granting approval to electronic trust services meeting agreed ‘best-practice’ criteria

• A not-for-profit organisation incorporating a broad range of stakeholders: service providers, technology companies, government, users and relying parties
Digital Certificate services
  » PKI-based Certification & Registration Authorities

Identity services
  » e.g. authenticated Electronic Identity for access to Government Gateway applications

Community (Closed User Group) services
  » demonstrating commitment to best practice
  » assuring corporate governance objectives

Outsourced services
  » Facilities Management
  » Certificate factories

tScheme-Ready component services
tScheme also is

• an independent industry voice for the promotion of secure electronic transactions
• a growing source of expertise on best-practice in the implementation and management of electronic identity services
• an independent voice to government on electronic Trust Service industry matters
• a source of user advice and information on service applications & case studies
• a reference point on market needs and user priorities
Benefits of independent regulation

- Fledgling electronic trust services
- Innovative service offerings
- Evolving business applications

require

- Regulatory focus based on true customer priorities
- Expert support for procurement decisions
- Added value through ‘best-practice’ consolidation
- Flexible & supportive regulatory approach
- Industry-led, internationally-shared objectives
tScheme current Members (Q1 2004)

- APACS
- Barclays
- Royal Bank of Scotland
- Royal Mail
- British Chambers of Commerce
- BT
- Intellect
- CBI
- III (Taiwan)

- ACCA
- Microsoft
- Experian
- e-Centre
- IBM
- Vodafone

plus key participants:
- DTI
- Cabinet Office (CSIA)
- InterForum

Total Members’ investment in cash & expert resources = £2M to end 2003
tScheme context

• Directive 1999/93/EC (Digital Signatures Directive) - an Article 3.2 & 7.1(a) voluntary ‘accreditation’ scheme

• UK Electronic Communications Act 2000 (ECA)

• tScheme’s objective is to continue to be the preferred way of fulfilling Part I of ECA – avoiding the need for legislation
tScheme and Electronic Identity
Issues for the networked economy

from Home Office ID Fraud report - July 2002:

• Identity authentication = validation + verification:
  • Attributed Identity [risks include false information; document theft; forgery]
  • Biographical Identity [risks appear lower - harder to plant false records]
  • Biometric Identity [risks include untried on a large scale; database integrity]

  – at the point of Issue: verifying a ‘real-world’ identity
  – at the point of Use: authenticating an ‘electronic’ identity
Electronic Identity service
approvals

• Government Gateway an early major relying party
  » HMG Identity Verification requirements [HMGVInd] included

• Other external standards & guidelines anticipated
  » e.g. Federated Identity ‘circles of trust’

• tScheme as independent regulator:
  • expert focus on service best-practice definition
  • developing approval criteria from credential issue to
    life-cycle management

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e-Government Strategy Framework
Identity validation & verification:
[HMGVInd]

• Registration Levels
  – Level Zero (risk of minimal damage)
  – Level One (risk of minor damage)
  – Level Two (risk of significant damage) *meets JMLSG identification guidance
  – Level Three (risk of substantial damage)

• Face-to-Face or Remote Registration – minimum requirements

• Types of evidence & number of items required:
  – Personal statement
    » Unique individual details
    » Material for cross-checking
  – Documentary evidence
    » Personal documents (attributed identity)
    » Active in the community (biographical identity)
  – Third party corroboration
    » Professional or Commercial source
  – Existing relationship
    » Knowledge gained through an existing formal documented relationship
Approval Profiles and Processes
tScheme Approval Profiles – current series:

- BASE PROFILE
  - Signing Key Pair Management
    - (Key Pair Generation, Key Pair Provision and Signing Capability Provision)
  - Registration
  - Certificate Generation
  - Encryption Key Pair Management
    - (Generation, Provision and Recovery)
  - Electronic Identity
  - Certificate Status Management
  - Certificate Status Validation
  - Certificate Dissemination
  - Time-Stamping
Approval Profile [tSd0108] headline criteria:

» Service information
» Proxy verification
» Data protection compliance
» Registrant agreement
» Relying party agreement
» Secure delivery of credentials
» Recognised Verification Requirements
» Record maintenance
Trust Service Approval - potential future scope

- Encryption key-pair management services
- Time-stamping services
- tScheme-Ready component services
- ‘Identity-based encryption’ services
- ‘Empowerment model’ services
- ‘Trust-enabled’ services
tScheme Approval focus: on operational Trust Service models

- Business probity and management competence
- Management and security policies and procedures
- Assurance of technical infrastructure
- Suitability of personnel
- Compliance with applicable legislation
- External relationships involved in service delivery
- Service-related policies and procedures
- Financial resources consistent with liabilities
- Procedures for dispute resolution
Process flexibility

• Accreditation of assessors + IAF assurance
  = *scope for international harmonisation*

• Accredited Assessment bodies
  = *existing Certification-Body skills enhancement*

• Development of industry best-practice criteria
  » *including for ‘closed community’ systems*

• Applicability of relevant existing standards
  » *ISO 17799, EESSI…*

• Peer scheme Mutual Recognition objectives
  = *Faster route to wider implementation*
tScheme present value (1)

• 5 current ‘tScheme-Approved Service’ Grants
  – full Grant details at https://www.tScheme.org/directory

• 9 Approval Profiles - consolidation of industry best practice
  – future Profiles anticipated as services evolve

• 300+ individually-tagged assessment criteria
  – also enabling ‘tScheme-Ready’ component service assessment
tScheme present value (continued)

• Required Assessment Procedures document
  – plus ‘Guidance for Assessments’; ‘Preparing for Assessment’

• Model Assessment Reports & Service specification templates
  – including a precise Service Description requirement

• Model Agreements
  – Grant of Approval, Registered Applicant, Recognised Assessors

• “tScheme Guide to Securing Electronic Transactions”
  – published at www.tScheme.org and available for translation

NB: available now for use in any tScheme process – including licensing of tScheme IPR

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tScheme and the EC Directive

*tScheme* is the leading voluntary scheme:

- aiming at enhanced levels of certification-service provision [including Qualified Certificates]
- operating as a framework for developing levels of trust, security and quality for the evolving market
- encouraging development of best-practice
- all service providers are free to adhere and benefit
- fully objective, transparent, proportionate and non-discriminatory
tScheme international goals

• Enhancing the value of electronic trust services
  – through awareness creation and consistent standards

• Enhancing the value of service Approvals:
  – for Trust Service Providers
  – for users and relying parties

• tScheme offers an underlying mark of assurance
  for ‘Mutual Recognition’ between peer schemes
tScheme - Peer Schemes
Mutual Recognition initiative:

• Workshop programme sponsored by tScheme & DTI
  – launch event on 12 December 2002
  – second event on 16 September 2003 with further dates proposed

• Discussion papers published & Domain established:
  » www.ViTAS-cig.org

• Shared Code of Practice topics:
  » Accreditation and Assessments
  » Basic approval criteria
  » Service-specific approval criteria
  » Publication of recognised status
tScheme as independent regulator

- promoting industry best-practice
- addressing emerging services e.g. Electronic Identity
- creating an efficient and flexible regulatory approach
- applying internationally-recognised standards
- enabling ‘light-touch’ legislation

= practical and relevant market regulation
find us at:

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