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

tScheme-*Approved Service Marks*

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)**
- ***Inter*Forum**

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

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**
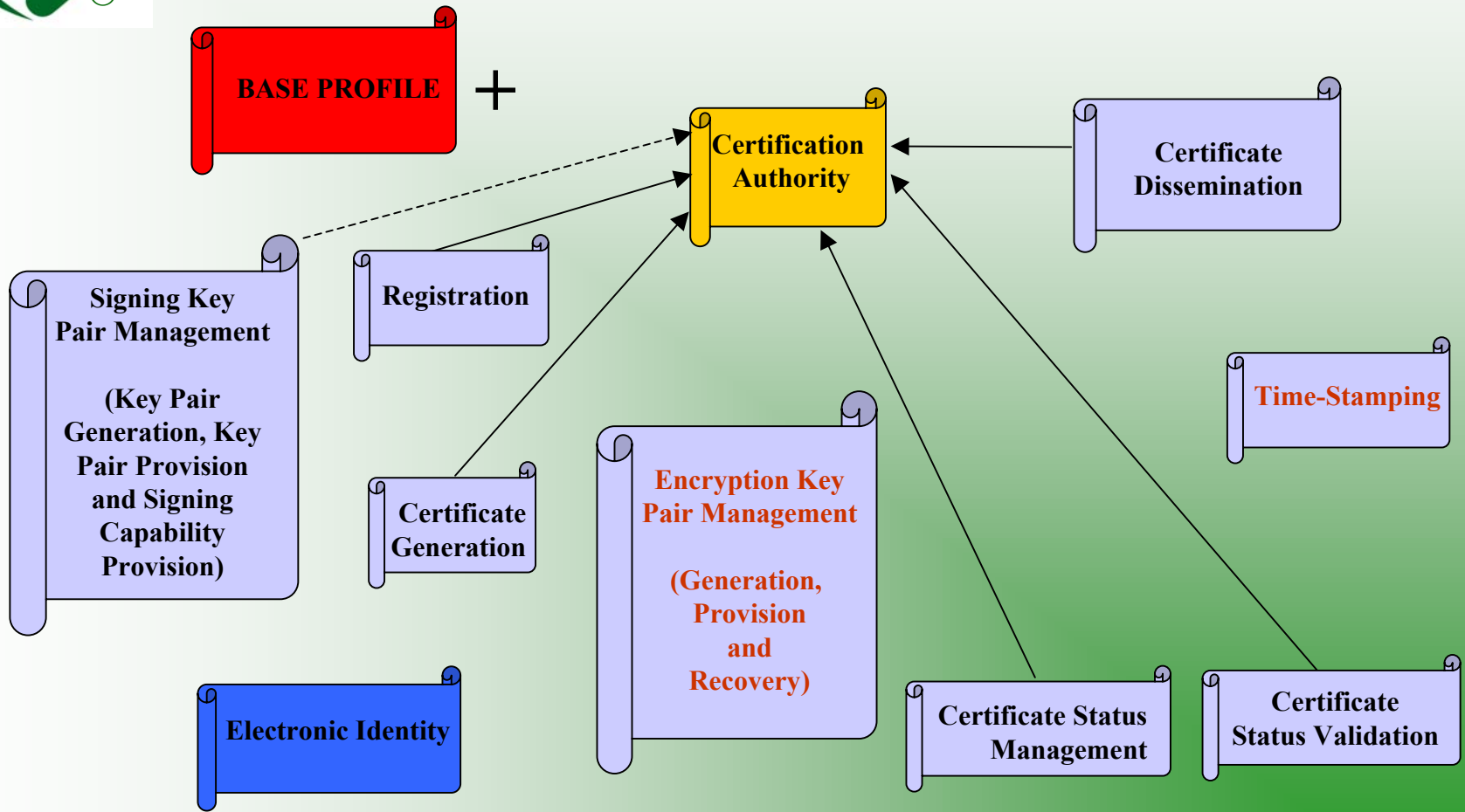   - » Knowledge gained through an existing formal documented relationship

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Approval Profiles and Processes

tScheme *Approval Profiles – current series:*

BASE PROFILE +

Certification Authority

Certificate Dissemination

Signing Key Pair Management

(Key Pair Generation, Key Pair Provision and Signing Capability Provision)

Registration

Certificate Generation

Time-Stamping

Encryption Key Pair Management

(Generation, Provision and Recovery)

Electronic Identity

Certificate Status Management

Certificate Status Validation

tScheme *and Electronic Identity*

- 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

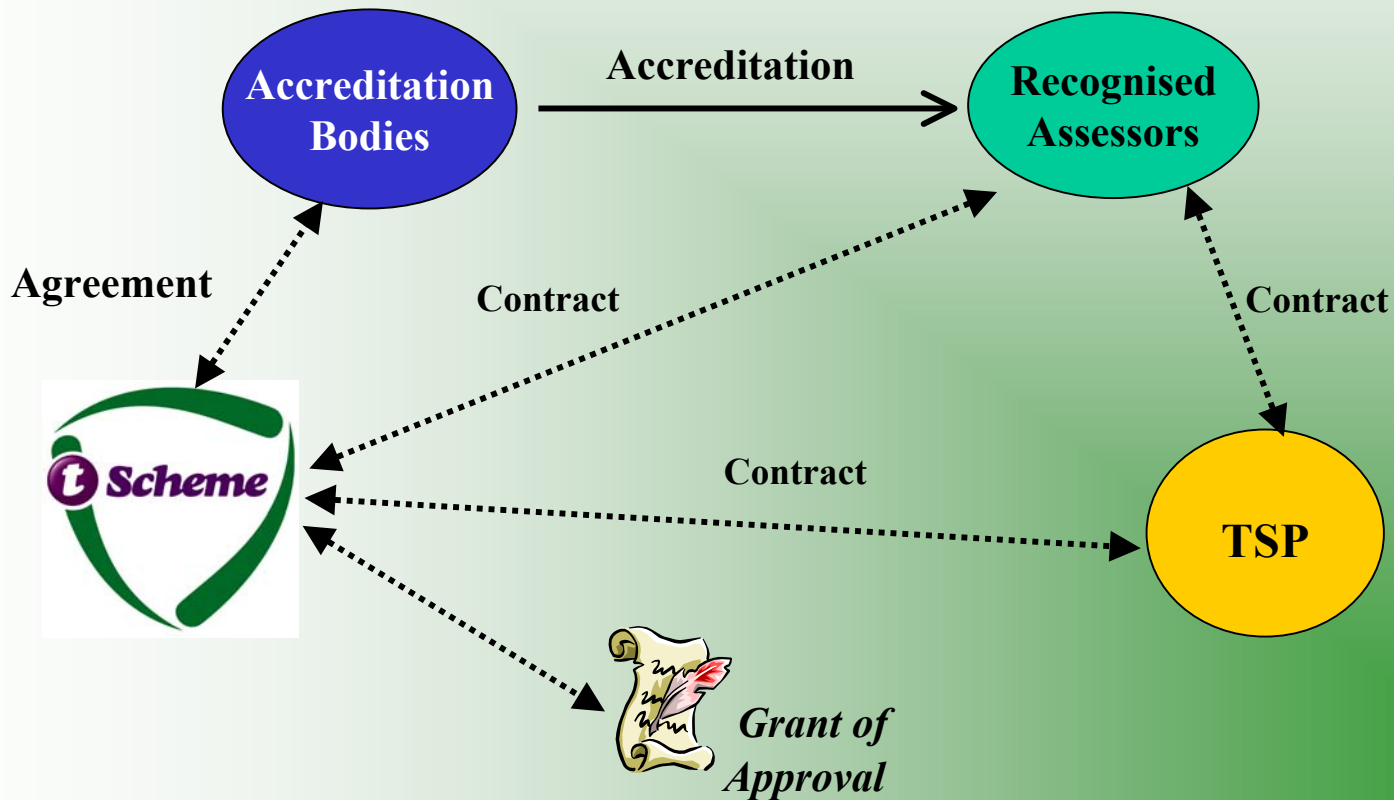- 'Empowerment model' services

- '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

Approval Process

Accreditation Bodies

Accreditation

Recognised Assessors

Agreement

Contract

Contract

t Scheme

Contract

TSP

Grant of Approval

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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

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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