Proposal for a New Strategy
(in the process of public review, due to end in May 2007. Final strategy will be proposed to the Government in August/September 2007)

Strategy for the Use of eID and Electronic Signatures in the Context of eGovernment

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Why a New Strategy?

• Previous strategy (2005-2006) built solely upon PKI as the enabling technology for eID and e-signatures

• Government Specifications for PKI – current standard for central and local government entities

• Self declaration of compliance for PKI services’ suppliers– within the National Post- og Telecom Authority

• Contractual agreement with a private service provider about a PKI-based government authentication portal had been abandoned in 2006

• Lessons learned:
  – Better coordination of government agencies’ needs
  – Manageability, government’s role
  – Broader technology approach
  – Financing schemes that are compatible with government budgeting principles
The Government Authentication Framework

- The Framework represents a common set of requirements and guidelines to be implemented by government agencies when developing electronic services for citizens and businesses.
- The Framework defines:
  - 4 vulnerability levels relating to the need for authentication and non-repudiation in online government transactions.
  - 4 security levels covering requirements for authentication solutions, including non-repudiation.
- For each vulnerability level there is a corresponding security level.
The definition of vulnerability levels

• The following criteria are proposed:
  
  – Consequences concerning health and welfare
  – Financial loss/ hassle/ increased costs
  – Loss of confidence (trust and integrity)
  – Obstruction of justice
  – Negligent contribution to perpetration of crime
  – Hassle and tort

• Level 1 represents low/no vulnerability for security breach in connection with authentication/signing.

• Level 4 represents high vulnerability.
The definition of security levels

- The following criteria are proposed:
  - Security properties of authentication factors
  - Enrolment procedures and proof-of-possession procedures
  - Secure storage and access to authentication factors
  - Additional requirements to achieve non-repudiation
  - Independent accreditation / declaration of compliance

- 4 security levels had been defined, with level 1 covering open access, up to level 4 covering sensitive / confidential information
Common security levels for eGovernment applications

<table>
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<tr>
<th>Security level 4</th>
<th>Single sign-on to many services and direct access to services requiring high level of security. Gradually to replace authentication solutions on level 3.</th>
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<tbody>
<tr>
<td>Security level 3</td>
<td>Single sign-on to many services, as well as direct login to services requiring middle or high level of security.</td>
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<td>Security level 2</td>
<td>Most of the existing eGovernment applications are here today. To be gradually migrated to level 3.</td>
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<tr>
<td>Security level 1</td>
<td>Open access to information, directly or through a portal (may involve identification)</td>
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Rollout of common authentication solutions on security level 3

- Proposal for a single type of “authentication PIN” at the security level 3 (involves a dynamic factor as well) Distributed to citizens at no cost.

- Tax Directorate to manage the distribution, building upon the systems created for online tax returns.

- Common technical requirements to be developed for this “authentication PIN”

- Agencies offering online services to enable login to these with the single “authentication PIN” from day one (may keep proprietary solutions for a time)
Rollout of common authentication solutions at security level 4

• The proposal from the Ministry of Justice for a voluntary national identity card. The card to hold eID issued by a government CA. Citizens to pay a fee for the card.

• The national identity card with eID to serve as a common authentication solution for high security eGovernment applications.

• The government eID may also be rolled out on other tokens, e.g. social insurance administration’s citizen card

• Plan B – a framework contract with a private PKI-supplier
The national identity card

- Voluntary scheme for Norwegian citizens and other applicants with permanent residence permit in Norway.
- To contain visual information, an MRT-area, as well as dual chip – an RFID (which will contain the visual info from the card and biometrics) and a contact chip to store eID
- Based on ICAO-standards to enable Schengen-functionality for Norwegian citizens
- Validity period of 5 years
- Dedicated registry for card owners
- New legislation (Act on national identity card)
The national identity card – II

- eID based on PKI, certificate class “Person High” according to Common Requirements Specification for PKI in government
- eID to be issued by a public authority (Ministry of Justice)
- Two key pairs: one for authentication and encryption (age limit 13 years), and one for signing (age limit 18 years)
- Enrolment procedures and card issuance to be managed by the police authority, utilising the infrastructure for passport issuance
Rollout of enterprise eID

• Enterprise eID realised by PKI-certificates issued to enterprises (different from server certificates); based on certificate class “Enterprise” according to Common Requirements Specification for PKI in government.
• Brønnøysundregistrene (company files agency) to establish a CA-service for issuance of certificates to all legal persons registered in Norway
• Government agencies will be obliged to obtain their enterprise certificate from this CA
• Non-government entities may do so, but will not be obliged.
• Enterprise certificates to be sold at competitive prices to non-governmental entities.
The government eID interoperability hub

- Government eID interoperability hub to be established for common use by all government agencies (central and local government)

- The interoperability hub to be managed by Brønnøysundregistrene.

- Basic services in the hub:
  - Authentication with common government eID (security level 3 eID and the national identity card)
  - Digital signing with common government eID (webforms and API for signing in local applications)
  - Digital archive (for digitally signed documents)
  - Single sign-on (SAML 2.0) – generic service

- Extended services, depending on demand
The business model proposal
The business model proposal

- Government financed rollout of “authentication PIN”. No acquisition costs for citizens.
- Citizens shall not pay for the use of eID (either level 3 or 4) for authentication in eGovernment services.
- The citizens will pay a cost-based fee for the acquisition of a national identity card. The card may also be used for authentication in private services, but the costs incurred by that will need to be covered by the service and/or citizens.
- Government agencies shall not need to be invoiced for the validation of government-issued eID.
- Central financing of the interoperability hub, but yearly payments from connected agencies may also be envisaged.