

I-voting pilot in Tallinn

During the last week of January, an I-voting pilot was conducted in Tallinn. City of Tallinn and Estonian National Electoral Committee organized a public poll among the residents of Tallinn during the last week of January. The question putted in poll dealt with the location of the statue of liberty.

It was possible to cast a vote in regular voting booths and also over the internet. Despite a passive attitude towards the question itself and a low turn out, the objectives of I-voting pilot project were met.

The enabling factor for I-voting in Estonia is ID-card. Over 700 000 ID-cards have been delivered in 3-year period. This means that over half of Estonia's residents have a such card. ID-card penetration is even higher in Tallinn where it is used as an e-ticket in public transport.

The I-voting system authenticates a person using ID-card's authentication certificate. After learning voter's identity, the system checks, whether the person is in the voters list and if he or she is included in the list, the system displays appropriate choices. After the voter has made his or her choice, it will be encrypted with system's public key and sealed with person's digital signature using, again, the ID-card. If the person votes repeatedly, only the last vote will be counted.

For achieving anonymity digital signatures are removed from the submitted votes before counting them. The secret key of the system is distributed amongst the members of the electoral commission. System design and strictly audited procedures ensure that the I-voting system provides all the properties of democratic elections such as anonymity, one-person-one-vote, free will, etc.

In the coming months the I-voting system will be further improved, tested and audited. In autumn 2005 municipal elections will take place. At this stage of development of e-voting system there seem to be no technical obstacles for allowing for I-voting during these elections.