

# CyberVote

Highly secure electronic voting solution



CyberVote is EADS' highly secure electronic voting solution for simplifying remote voting operations (Intranet, Internet and surface mail) and tallying operations without compromising security and confidentiality of the choices of voters.

This solution is a major improvement on the innovative results of the CyberVote research project led by EADS under contract IST-1999-20338. The most advanced technologies of information, communication and security are used for simplifying voting procedures and increasing voters' participation rate.

EADS' solution covers the overall chain for running an election:

- Administrative tools for managing election parameters with specific import facilities
- Management of security and encryption (shared key generation, authentication of voters)
- Flexible client/server solution for remote voting, coupled with archiving procedures and logs of all server operations
- Complete set of tallying tools (display of results, export facilities, printing, etc.).



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### Highly secure solution

The CyberVote solution already used for numerous elections results from EADS' experience in securing critical infrastructures and communications of large administrations. It offers a high level of security and confidentiality: anonymity of the ballot, transparency and proof of correct execution of the tallying process, integrity check and security of the asymmetric encryption keys.

### Encryption

Encryption relies on homomorphic algorithms which guarantees anonymity of the voter and counting of the vote. The electronic ballot box only receives encrypted ballots. Individual votes remain encrypted even during the tallying process due to the homomorphism of the encryption.

### User-friendly solution

This user-friendly solution can be used by any voter. Once the voter has his/her personal credentials, he/she logs on to a secure website and votes in three simple steps: authentication, selection of candidates, casting of the ballot. Once transmitted, the voter receives a confirmation of receipt.



### User access

- Any computer (Mac, PC, Linux) with an Internet browser (IE, Firefox, Netscape, Opera, Mosaic, etc.)
- Authentication by login/password, digital certificate or smartcard.

### Secure Web server hosting

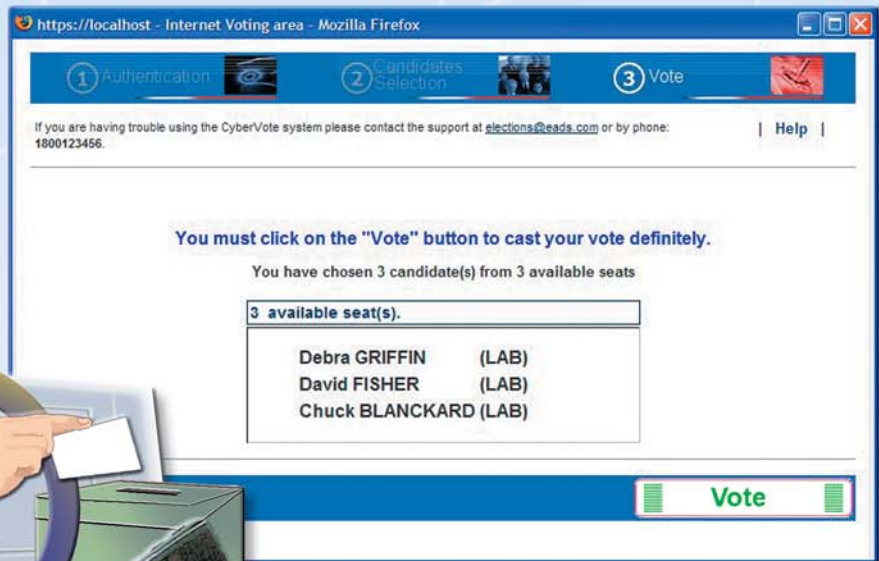
- Guarantee of quality of service (24 hours a day, 7 days a week) with fully redundant architecture to prevent disruption of the voting service
- Restricted and secure access on ISP premises hosting Web servers.

### Data protection

In conformity with the recommendations and regulations of national data protection offices.

### Main references

- French Ministry of Foreign Affairs: France's largest elections proclaimed by decree with 600 000 voters from all over the world (to be run in June 2006)
- French Assembly of Chamber of Commerce (France): world's largest election in 2005 with 340 000 voters. Also, first remote French election proclaimed by decree. Chambers of Commerce of Paris, Alençon, Bordeaux, Grenoble and Nice (France)
- City of Issy-les-Moulineaux (France): first French legally-binding election in 2003
- Freie Hansestadt Bremen (Germany)
- Kista Stadsdelsnämnd (Sweden).



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