Strong home market leadership

- Largest fixed voice and data provider in the Nordic region
  - Leading positions in Sweden and Finland
  - Significant position in Denmark
- Largest operator in the Baltic region
  - Consolidated fixed line operations in Lithuania
  - Minority interest in fixed line operation in Latvia and Estonia

1) TeliaSonera is the second largest provider of Internet broadband services in Denmark and the second largest owner of infrastructure.
2) TeliaSonera is one of the leading providers of domestic local, long distance and international voice services in Finland.
3) Non-controlling interest.
### TeliaSonera in the Nordic countries

TeliaSonera operates under several brands:

<table>
<thead>
<tr>
<th>Country</th>
<th>Services</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>Mobile Communications, Fixed Telephony, Internet services, Cable TV, Data Communications.</td>
<td>100%</td>
</tr>
<tr>
<td>Finland</td>
<td>Mobile Communications, Fixed Telephony, Internet services, Cable TV, Data Communications.</td>
<td>100%</td>
</tr>
<tr>
<td>Denmark</td>
<td>Mobile Communications, Fixed Telephony, Internet services, Cable TV, Data Communications.</td>
<td>100%</td>
</tr>
<tr>
<td>Norway</td>
<td>Mobile Communications, Internet Services</td>
<td>100%</td>
</tr>
</tbody>
</table>
# TeliaSonera in the Baltic countries

TeliaSonera operates through subsidiaries and associate companies:

<table>
<thead>
<tr>
<th>Country</th>
<th>Services</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>Fixed Telephony, Internet services and Data Communications</td>
<td>49%</td>
</tr>
<tr>
<td>Estonia</td>
<td>Mobile Communications</td>
<td>49%</td>
</tr>
<tr>
<td>Latvia</td>
<td>Fixed Telephony, Internet services, Data Communications</td>
<td>49%</td>
</tr>
<tr>
<td>Latvia</td>
<td>Mobile Communications</td>
<td>60.3%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Fixed Telephony, Internet services, Data Communications</td>
<td>60%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Mobile Communications</td>
<td>55%</td>
</tr>
</tbody>
</table>

TeliaSonera operates through subsidiaries and associate companies:
TeliaSonera Incident Organisation

- TF-CSIRT L2 member 2001
- FIRST membership since 2000
- Initiator of Swedish CERT-forum

- Distributed organisation
  - One Coordination Center and several SubCERT
  - Delegate responsibility for handling the security incident
  - Faster and more efficient
  - Incident cost affects the organisation of the incident owner
TeliaSonera SubCERT responsibilities
Areas of Responsibility - Operative

- Emergency response
  - TCN, Telia Corporate Network (80%)
  - Other internal networks (10%)
  - Production and services networks (10%)

- Coordination of incident handling within the TeliaSonera Group
  - TCN, Telia Corporate Network
  - Other internal networks
  - Production and services networks

- Leads and coordinate incident handling organisation
  - SubCERTs

- Special Investigations
Areas of Responsibility - Preventive

• IT-Security Information Coverage
  – Information Gathering
  – Qualification
  – Publishing (web, maillists and early warnings)
  – Cooperate with other national/int’l CSIRTs, LEA

• TeliaSonera Corporate Network IDS
  – Network sensors and system log analysis

• Security Checklists
  – Hardening operating systems and applications

CSIRT = Computer Security Incident Response Team
LEA = Law Enforcement Agency
IDS = Intrusion Detection System (TeliaAIR + LogServer)
Areas of Responsibility – Follow-Up

• Penetration Testing
  – Coordinate
  – Perform
  – Leads the pool of ‘hacking’ competence

• Special Assignments
TeliaCERT Contact Information

- Emergency #: +46 8 713 1872
- Fax #: +46 706 175 101
- E-mail: tcert@telia.se
- Webpage: http://www.t-cert.telia.se
- Time of operations: 24/7
- PGP key: ldap://certserver.pgp.com
Any Questions?

Thank you for taking time to listen to us.