



**UNITED
NATIONS**
Economic Commission
for Europe



***Findings of the Ankara meeting
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Agenda item 4



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Informal Ad hoc Expert Group on Conceptual and
Technical Aspects of Computerization of the TIR Procedure
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Outline

- Background
- Requirements and assumptions
- Options
- Estimated costs
- Next steps



Background

**17th session mandate -
investigate the financial
aspects related to the
development and the
maintenance of the
eTIR international
system**

**18 February 2011
WP.30/GE.1/211/5**





Requirements and assumptions

- 3 million TIR transports per year;
- 3 TIR operations per transport;
- 1% of cancellation;
- 50% of TIR transports are queried;
- 10% of amendments.
- ➤ **103 350 000 messages/year**



Requirements and assumptions

- asynchronous with queuing and resending mechanisms
- maximum response time at peak times of 5 seconds
- Textual information only



Options

	<i>Advantages</i>	<i>Drawbacks</i>
From scratch	Highly scalable; system ownership; high security and data privacy; flexibility.	Expensive; requires to hire highly qualified personnel; time consuming.
Existing infrastructure	Scalable; shared maintenance costs.	Dependent on existing infrastructure and maintenance personnel; limited influence on general security and availability policy.
Outsourcing	Scalable; no fixed costs.	Data privacy might be an issue.
Cloud	Maximum scalability; system can start at very limited costs (even for free).	No control on prices; data privacy might be an issue; portability of applications can be a problem (development can be cloud specific).



Estimated costs

- Software development
 - 3000 man-days
 - analysis: 20%, design: 30%, software development: 30% and testing and training: 20%.



Estimated costs

<i>Hardware and licences (in UDS)</i>	<i>Option 1</i>	<i>Option 2</i>
Cooling	60 000	
Power supply	50 000	
Generator	40 000	
Heat-smoke detectors/fire extinguishers	50 000	
Backup/ disaster recovery	100 000	
2 Firewalls	80 000	
Storage (RAID) ¹	200 000	200 000
2 SAN ² switches	15 000	
Load Balancer	15 000	
Layer 3 Switch (24 x 1000Mbps)	20 000	
<i>Servers</i>		
2 Database servers (each 2 socket / 4 core)	50 000	50 000
RDBMS ³ + Cluster licences (16 core x 0.5 factor)	300 000	300 000
3 Application servers	15 000	15 000
1 LDAP ⁴ server	5 000	
Total	1 000 000	565 000



Estimated costs

- Total costs
 - 2.5 to 3 million USD
- Estimated annual maintenance (20% rule)
 - 500'000 to 600'000 USD



Next steps

- Discuss the various options
- Recommend some of the options
- Further investigate the preferred options
- Events of interest:





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