

# Patentability of Computer Implemented Inventions in Europe

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# Overview

- A quick primer on the European approach
- Illustrative examples from the areas of electronic trading and gaming
- Practical tips



- **A quick primer on the European approach**
- Illustrative examples from the areas of electronic trading and gaming
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# Requirements for patentability

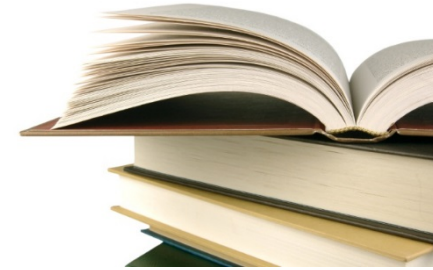


The EPC contains two sets of requirements for patentability:

- **Basic** requirements, e.g. novelty etc.
  - Set out in Article 52(1) EPC which includes the requirement that there must be an “invention”
  - What is not an invention is set out in Article 52(2) EPC
  - Non-inventions include **abstract** concepts
  - Boards of Appeal have interpreted Article 52 EPC as to what is and what is not an invention in specific cases
- **Further** requirements

[http://www.epo.org/law-practice/legal-texts/html/guidelines/c/g\\_i.htm](http://www.epo.org/law-practice/legal-texts/html/guidelines/c/g_i.htm)

# Further requirements



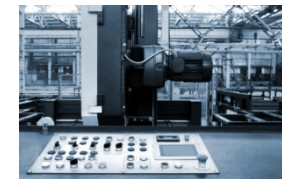
**Further requirements** are contained in Article 83 and Rules 42 & 43 EPC:

- Invention must be such that it can be carried out by the skilled person
- Invention must have “**technical character**”, i.e.:
  - relate to a **technical field**
  - be concerned with a **technical problem**
  - have **technical features**
- Examining Divisions and Boards of Appeal often look at computer-implemented inventions by considering the **technical problem** (or **technical purpose**) of the invention

[http://www.epo.org/law-practice/legal-texts/html/guidelines/c/g\\_i\\_2.htm](http://www.epo.org/law-practice/legal-texts/html/guidelines/c/g_i_2.htm)

# Technical character

- No definition of the term “technical”
- Determined on a case-by-case basis
- Examples of what is **technical** include:
  - processing physical data, e.g.:
    - image data, control values for an industrial process
  - processing which affects the way in which a computer operates, e.g.:
    - changing the OS, saving memory, increasing speed, improving security or reliability, reducing use of communication resources *etc.*
  - physical features of a physical entity, e.g.:
    - memory, port, *etc.*



# Computer-implemented inventions

Case law of the Boards of Appeal which has shaped the approach to how computer-implemented inventions are examined:

- T 208/84 (Computer-related invention/ VICOM)
- T 26/86 (X-ray apparatus/Koch & Sterzel)
- T 1173/97 (Computer program product/IBM)
- T 931/95 (Pension Benefit Systems Partnership)
- T 641/00 (Two identities/COMVIK)
- T 258/03 (Auction method/ Hitachi)
- T 154/04 (Estimating sales activity/Duns Licensing)
- T 1227/05 (Circuit simulation/Infineon Technologies)

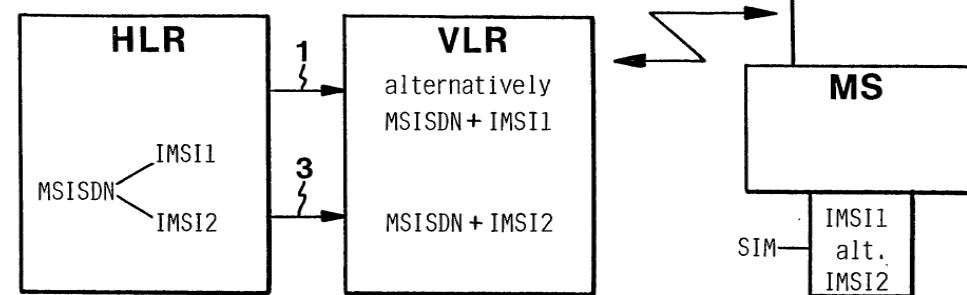


# T 641/00 (Two identities/COMVIK)

1. Method in a digital mobile telephone system of the GSM type, in which subscriber units (MS) are controlled by a subscriber identity module (SIM), **characterised in that** the subscriber identity module (SIM) is allocated at least **two identities** (IMSI 1, IMSI 2), information thereon being stored in a home database of the system, said at least two identities being selectively usable, wherein only one identity (IMSI 1 or IMSI 2) can be activated at a time, the user when using a subscriber unit (MS) selectively activating the desired identity in said home database from the subscriber unit, wherein the selective activation is used for **distributing the costs for service and private calls or among different users.**

- Granted, but revoked during opposition
- Appeal dismissed

FIG.1





# T 641/00 (Two identities/COMVIK)

From the headnote of the decision:

“An invention consisting of a mixture of technical and non-technical features and having technical character as a whole is to be assessed with respect to the requirement of inventive step by taking account of **all those features** which **contribute to said technical character** whereas features making no such contribution cannot support the presence of inventive step”

- Non-technical features can **interact** with technical features to change how the technical aspects of the claim technically function



<http://www.epo.org/law-practice/case-law-appeals/recent/t000641ex1.html>

# T 641/00 (Two identities/COMVIK)

COMVIK sets out an approach which boils down to:

- Does the invention have technical character?
  - Easy hurdle to overcome
  - Why? Because the invention is implemented on a computer
  
- Does the invention involve an inventive step?
  - Harder to overcome
  - Why? Novelty usually resides in “non-technical” features
  
  - Whether or not an invention involves an inventive step depends on whether or not there is an interaction between technical and non-technical features

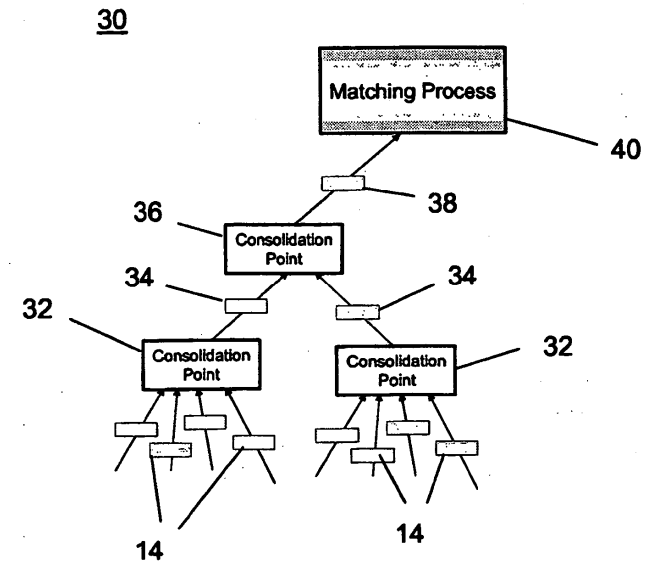


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# EP 1 641 213 B1 - Trading system

1. A trading system processing messages in at least one of a data- and telecommunication network, characterized in that said system comprises: a **consolidation point** for said messages in a server layer, whereby said messages are collected in multiple concatenated predetermined hold-back time-frames; and a **transmitter application**, transmitting said messages consolidated in said time-frames as single transaction for central matching processing when a time-frame has lapsed in time, **thus eliminating transactional overhead and achieving a substantial gain in message processing throughput time in said trading system.**



<http://worldwide.espacenet.com/publicationDetails/originalDocument?FT=D&date=20080528&DB=E-PODOC&locale=en EP&CC=EP&NR=1641213B1&KC=B1&ND=4>

# EP 1 641 213 B1 - Trading system



So why did this application succeed?

✓ Technical problem:

How to improve processing of messages in a trading system to reduce **processing throughput time**

✓ Technical features:

Consolidation point

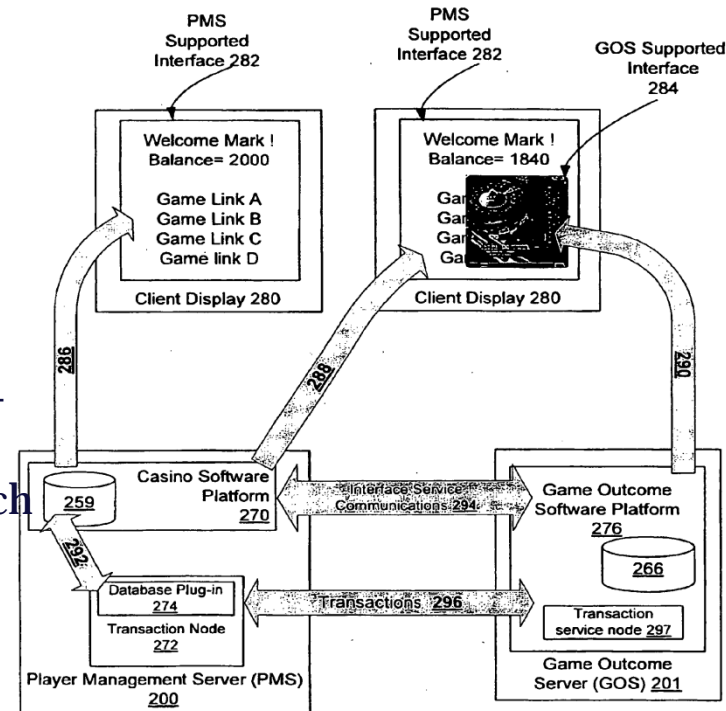
Transmitter application

➤ Even though the invention is used in trading, it solves a technical problem, i.e. processing throughput time

# EP 2 005 400 B1 - Internet remote game server

1. A gaming system comprising:  
a plurality of game outcome servers (210), each game outcome server having stored thereon a plurality of selectable wagering games, each game outcome server (201) having a communication interface for allowing, in use, the game outcome server (201) to communicate with both a plurality of remote client devices (210, 216-228) and a physically separate and remotely located player management server (200, 202), each game outcome server (201) comprising: [...]

- Refused by examining division
- Appealed (T 1769/10) and decision set aside



<http://www.epo.org/law-practice/case-law-appeals/recent/t101769cu1.html>  
<http://worldwide.espacenet.com/publicationDetails/biblio?CC=EP&NR=2005400>

# EP 2 005 400 B1 - Internet remote game server

So why did this application succeed?



✓ Technical problem:

- How to modify the prior art system (US 2006/0025207 A) so as to **improve the player's access** to games while **maintaining confidentiality** of the player's data in the player database

✓ Technical features:

- Game links which allow a user to navigate game outcome servers through a game access interface supported by a player management server and displayable by an identified client device and without the player having to register or log-on into the game outcome servers
- Player management server and game outcome servers are separate

<http://www.epo.org/law-practice/case-law-appeals/recent/t101769eu1.html>  
<http://worldwide.espacenet.com/publicationDetails/biblio?CC=EP&NR=2005400>

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# Description



- Strongly recommended to focus on **technical** aspects
- Strongly recommended, when describing prior art, to describe **technical** aspects and **technical** drawbacks of the prior art
- Avoid discussing non-technical drawbacks of the prior art
- Recommended to cite EP prior art which has proceeded to grant
- Strongly recommended to specify the **technical problem** and/or **technical effect** of the invention and preferred features
- Strongly recommended, when describing embodiments of the invention, to describe **technical features**

# Claims



- Many forms of claim are allowable:
  - ✓ A device comprising an encryption module configured to...
  - ✓ A method of encrypting data, the method comprising applying a hash function...
  - ✓ A computer program comprising instructions which, when executed by data processing apparatus, causes the apparatus to perform a method according to any one of claims X to Y.
  - ✓ A computer readable medium storing a computer program according to claim Z.

# Claims



- Claim features:
  - Concentrate on **technical features**
  - **Means-plus-function** language is acceptable and interpreted broadly
  - Unless defined otherwise, words are given meaning and scope they normally have in the **relevant art**
  - Wording such as “*configured to*” and “*adapted to*” is allowable and is recommended
  - No requirement to specify processor and memory
  - “Traditional” wording such as “*terminal*”, “*server*”, “*host*” tends to be safer than more commercial terminology such as “*app store*”, “*dashboard*”, “*point-of-sale*” etc.

# Strategy

- For borderline cases, consider drafting or modifying a specification specifically for Europe – particularly important due to ‘added matter’ restrictions
- Identify the likely IPC code for an application and adapt the language of claim 1 and abstract to help steer the application to more sympathetic Examining Divisions and Boards of Appeal
- Cite “helpful” technical prior art which might help to steer the application towards more sympathetic Examining Divisions
- For borderline cases, avoid UK applications



# Conclusions

- The approach to examining computer-implemented inventions at the EPO is pretty well established
- The issue tends not to be excluded subject matter (i.e. ineligible subject matter)
- Business methods and other abstract or non-technical processes will be refused on the grounds of lack of inventive step
- It is highly recommended to draft a patent specification for filing in Europe with the European approach in mind



# Thank you

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