Patentability of Computer Software in Europe

Dr. Eng. Marco Celestino

Italian IP consultant

European patent attorney

European trademark attorney

European design attorney

Three keywords

- ***Europe***
- ***Computer software***
- ***Patentability***

Each state has a different patent law

Brevetto

Patent

Brevet

Patentti

Einkaleyfi

Πατέντα

Patentas

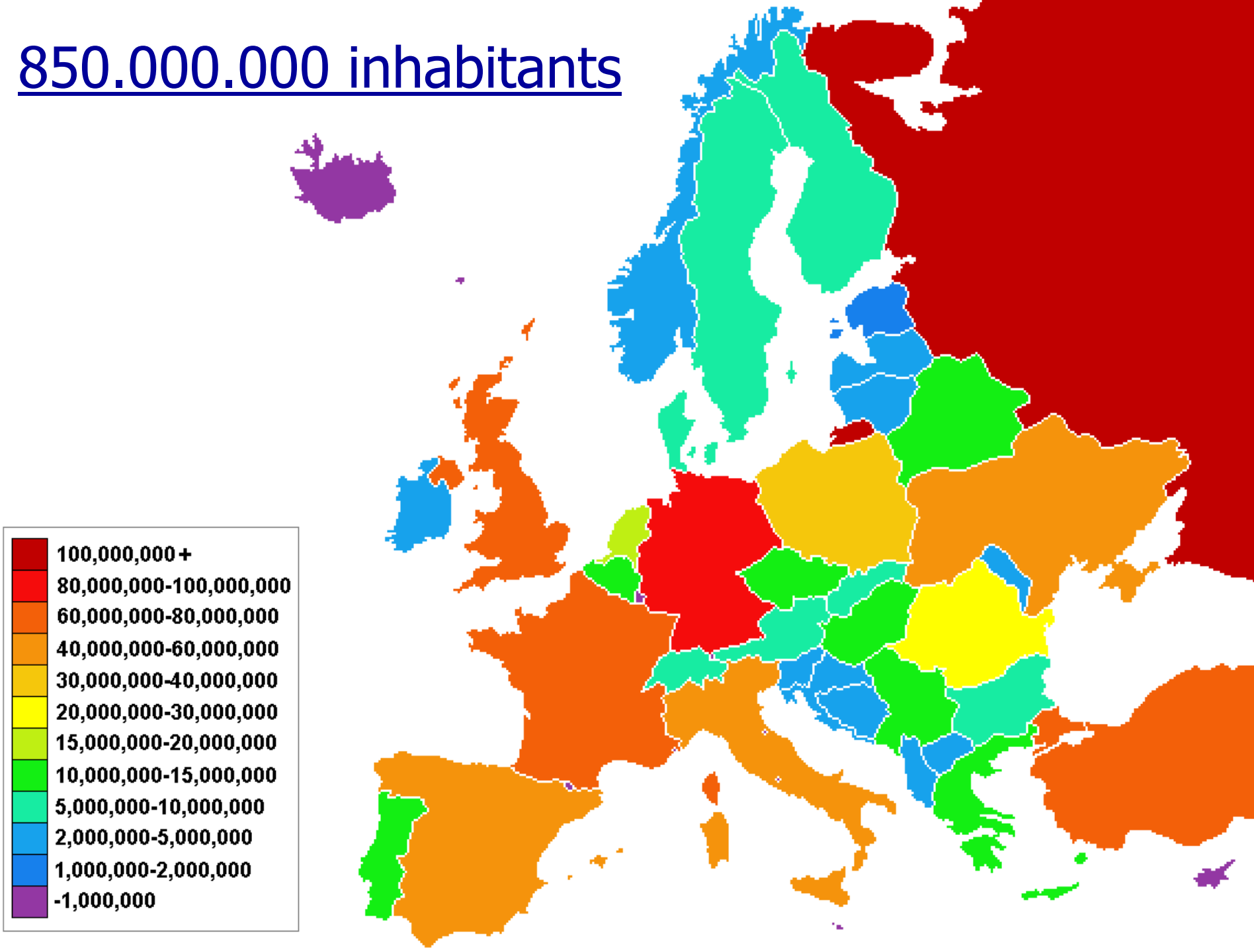
Патент

Találmány

Octrooi

PISA, 22/03/2016

850.000.000 inhabitants



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European Patent Office

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2 European extension states

Bosnia-Herzegovina • Montenegro

1 Validation state

Morocco

Getting patents – the European Patent Convention

EN / FR / DE

European Patent Office – The EPC 1973 (revised 2000)

EPO Search

EPO Publication

Examination

Grant Publication

Opposition (9 months)

File translations

Validated nationally

A "bundle" of national rights to be licensed or litigated separately in each member state. Applicant pays for as many states as needed.

The unitary patent and the EPO member states

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Other EPO member states

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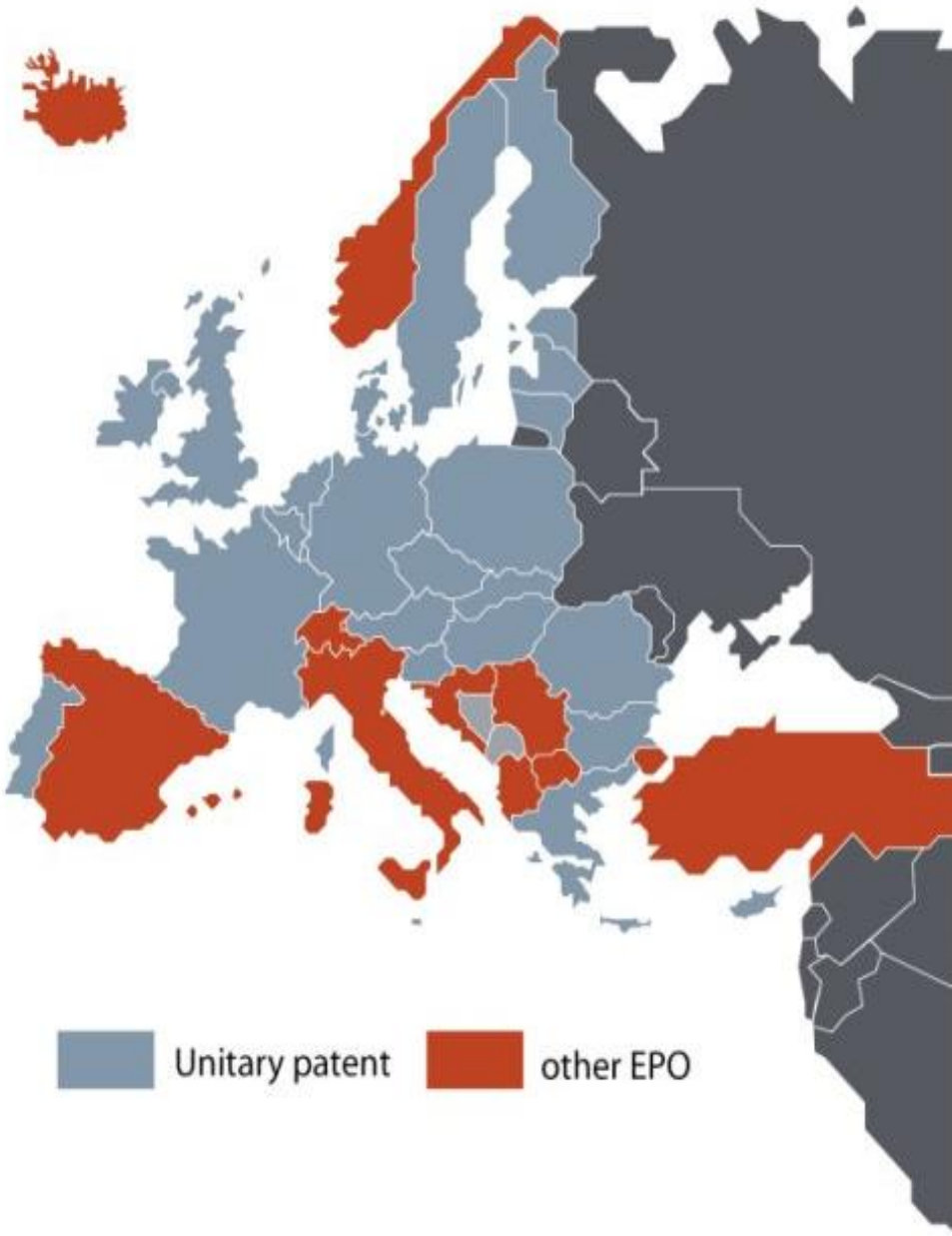
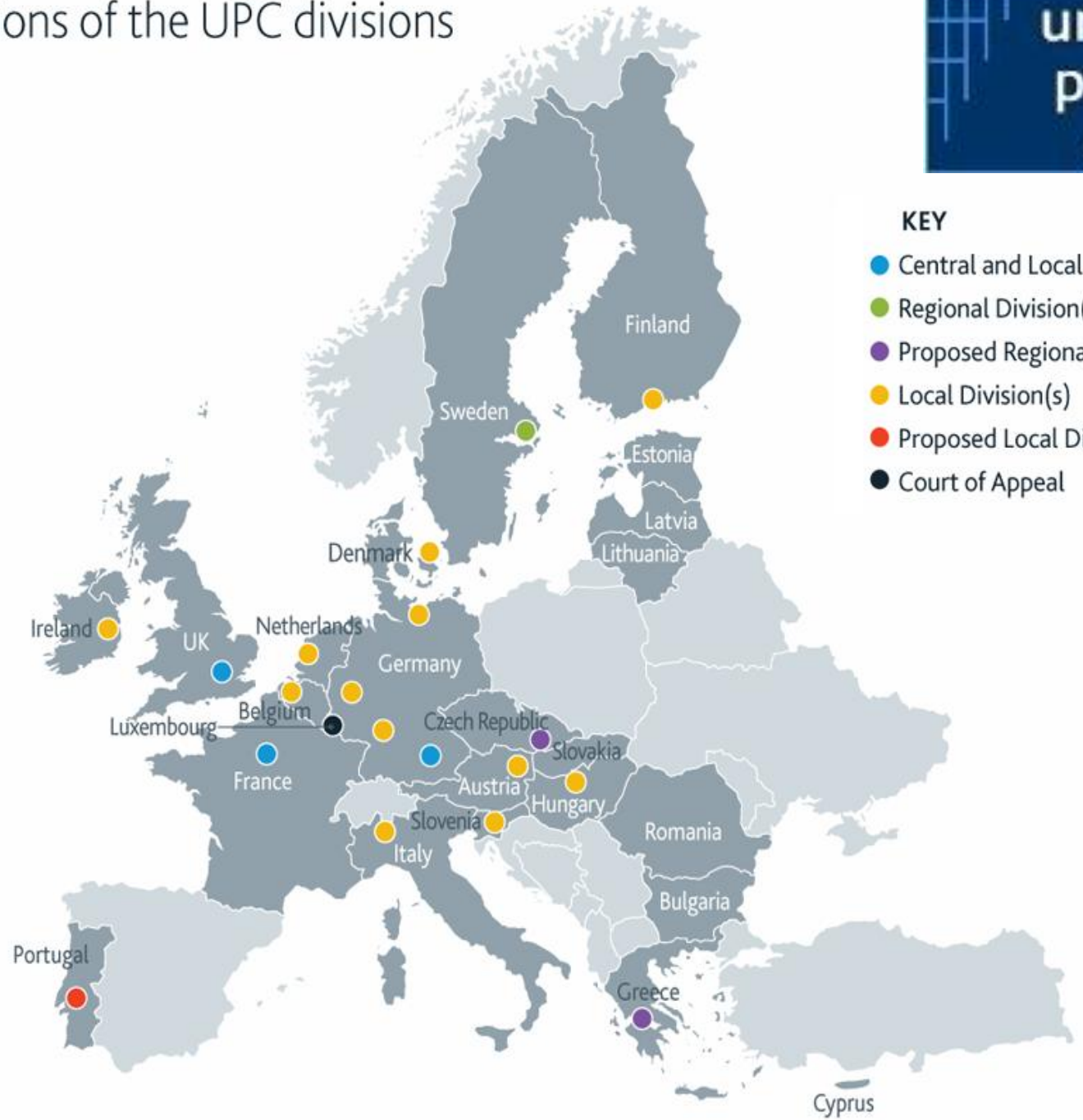


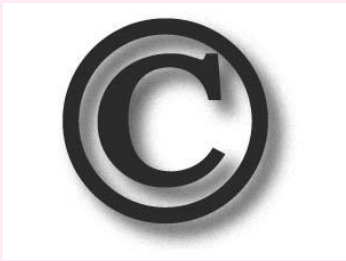
Predicted locations of the UPC divisions

unified patent court



Disambiguation

Protection of
computer software
can be obtained by Copyright.



Protection on
computer implemented inventions (CIIs) *can be obtained by a Patent*

Protection of **software** by Copyright

*Copyright is the "**right to make a copy**"*

We use such right when we lawfully install a copy of an "app" on a smartphone or tablet or PC

*This requires a **license** from the author, which gives us a right to make such copy*

*Copy without license is **Copyright infringement***

CIIs are not considered SW

- *Art 52 EPC excludes*
- *programs for computers … as such*
- *from patentability*

CIIs are not programs for computers … as such

Protection in Europe of **Computer implemented inventions** by a Patent

- *A patent is, in the substance, a **claim on an invention** on which a government grants exclusive rights, and this occurs only if:*
- *The claim is **novel***
- *The claim is **inventive***
- *The claim is accompanied by a **specification** written by the applicant (or his attorney) **disclosing the inventive concept** and its major embodiments*

Method claims and System claims

- *Most common claims for CIIs are*
- ***Method claims**, namely the CIIs are considered as industrial processes, and the method claims define the essential steps for carrying out the inventive process*
- ***System claims**, namely the CIIs are a combination of apparatus features and functions carried out by program means operating in association with them*

Novelty and Inventive step

Proper definition of an invention:

It is a **solution of a technical problem**

We have seen the main prerequisites for an invention:

- Novelty (does not exist) - art 54 EPC
- and "Inventive step" (it is not obvious) - art 56 EPC

Novelty and inventive step in the EPC (European Patent Convention

- **A claim is novel if it is not disclosed in the prior art (Art. 54 EPC)**
- **A claim is inventive if it is not obvious over the prior art, taking into account the technical problem that the invention solves (art 56 EPC)**
- **Therefore, it is fundamental to know the background art**

Searching prior art by name on the Espacenet Database

worldwide.espacenet.com/advancedSearch?locale=en_EP

Smart search
Advanced search
Classification search

Quick help

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- Can I use truncation/wildcards?
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Title: plastic and bicycle

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Enter numbers with or without country code

Publication number: WO2008014520

ep

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Applicant(s): Institut Pasteur

google

this applicant has European Applications

Result list

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Approximately **1,984** results found in the Worldwide database for:
ep as the publication number AND **google** as the applicant
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1

Results are sorted by date of upload in database

1. SYSTEM TO SHARE NETWORK BANDWIDTH AMONG COMPETING APPLICATIONS

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
JAIN SUSHANT [US] RAGHURAMAN ANAND [US] (+3)	GOOGLE INC [US]	H04L41/0896 H04L43/0894 H04L47/11 (+5)	G06F9/50 H04L12/801	EP 2966569 (A1) 2016-01-13	2011-02-01

2. WRITING APPLICATION DATA TO A SECURE ELEMENT

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
VON BEHREN ROB [US] WALL JONATHAN [US] (+3)	GOOGLE INC [US]	G06F21/62 G06Q20/3552 G06Q20/3563 (+5)	G06Q20/34 G07F7/10	EP 2966628 (A1) 2016-01-13	2010-12-17

3. INSTRUCTION CACHE MANAGEMENT BASED ON TEMPORAL LOCALITY

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
SEREBRIN BENJAMIN C [US] HAZELWOOD KIM [US]	GOOGLE INC [US]	G06F12/0875 G06F12/123 G06F12/126 (+1)	G06F12/12	EP 2980703 (A2) 2016-02-03	2014-08-01

Read the bibliographic data

Bibliographic data: EP2252944 (A2) — 2010-11-24

In my patents list | Previous | 9 / 103 | Next | EP Register | Report data error | Print

UNIVERSAL LANGUAGE INPUT

Page bookmark	EP2252944 (A2) - UNIVERSAL LANGUAGE INPUT
Inventor(s):	QIAN JIANG [US]; ZHANG LEI [CN] ±
Applicant(s):	GOOGLE INC [US] ±
Classification:	**- international:** ***G06F17/28; G06F17/30***
	- cooperative: **G06F17/289**; **G06F17/30669**
Application number:	EP20090715783 20090211
Priority number(s):	WO2009US33834 20090211 ; US20080033697 20080219
Also published as:	EP2252944 (B1) US2009210214 (A1) US8473276 (B2) WO2009108504 (A2) WO2009108504 (A3) → more

Read the abstract

Abstract not available for EP2252944 (A2)
Abstract of corresponding document: US2009210214 (A1)

Translate this text into

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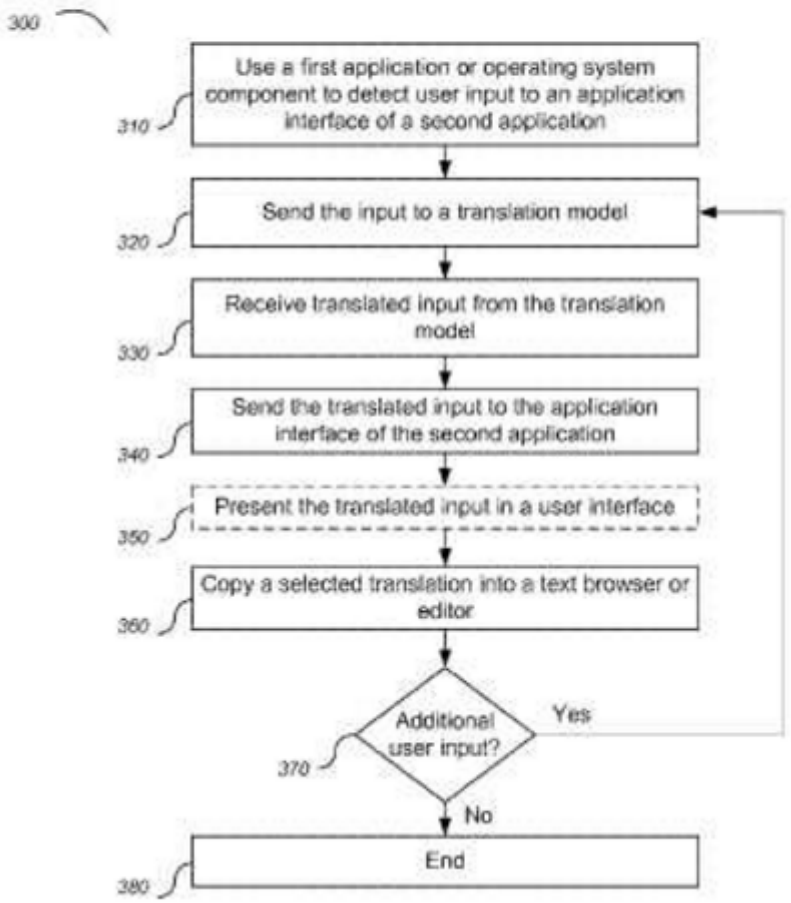
Systems, methods, and apparatuses including computer program products for universal language input are provided. In one implementation, a method is provided. The method includes using a first application or operating system component to detect user input to an application interface of a second application. The method also includes, as input is detected in the application interface, automatically using the first application to provide one or more translations of the input including, sending the input to a translation model, receiving translated input from the translation model, and sending the translated input to the application interface of the second application.



Read the granted specification in Europe

(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 2 252 944 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention of the grant of the patent:
27.08.2014 Bulletin 2014/35

(21) Application number: **09715783.8**

(22) Date of filing: **11.02.2009**

(51) Int Cl.:
G06F 17/28 *(2006.01)* ***G06F 17/30*** *(2006.01)*

(86) International application number:
PCT/US2009/033834

(87) International publication number:
WO 2009/108504 (03.09.2009 Gazette 2009/36)

(54) **UNIVERSAL LANGUAGE INPUT**

UNIVERSELLE SPRACHEINGABE

ENTRÉE DE LANGAGE UNIVERSEL

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK TR

(30) Priority: **19.02.2008 US 33697**

(43) Date of publication of application:
24.11.2010 Bulletin 2010/47

(73) Proprietor: **Google Inc.**

- **ZHANG, Lei**
  Beijing 100081 (CN)

(74) Representative: **Edlund, Fabian et al**
Awapatent AB
Södra Hamngatan 37-41
P.O. Box 11 394
404 28 Göteborg (SE)

(56) References cited:
US-A1- 2005 086 214

Read the granted claims

Claims

1. A computer-implemented method, comprising:

intercepting, at a computer system (200) including a processor (410), a user input to one of a plurality of applications (205) executing on the computer system (200) by applying a hook to an interface between the plurality of applications (205) and an operating system (207) of the computer system (200), the input being of a source language;
redirecting, at the computer system (200), the input to a different application (206) executing on the computer system (200), the different application (206) being different than the plurality of applications (205);
generating, at the computer system (200), one or more translations of the input using the different application (206), each of the one or more translations of the input being of a target language, the target language being different than the source language;
selecting, at the computer system (200), one of the one or more translations of the input to obtain a selected translation; and
sending, at the computer system (200), the selected translation to said one of the plurality of applications (205).

Understand the invention

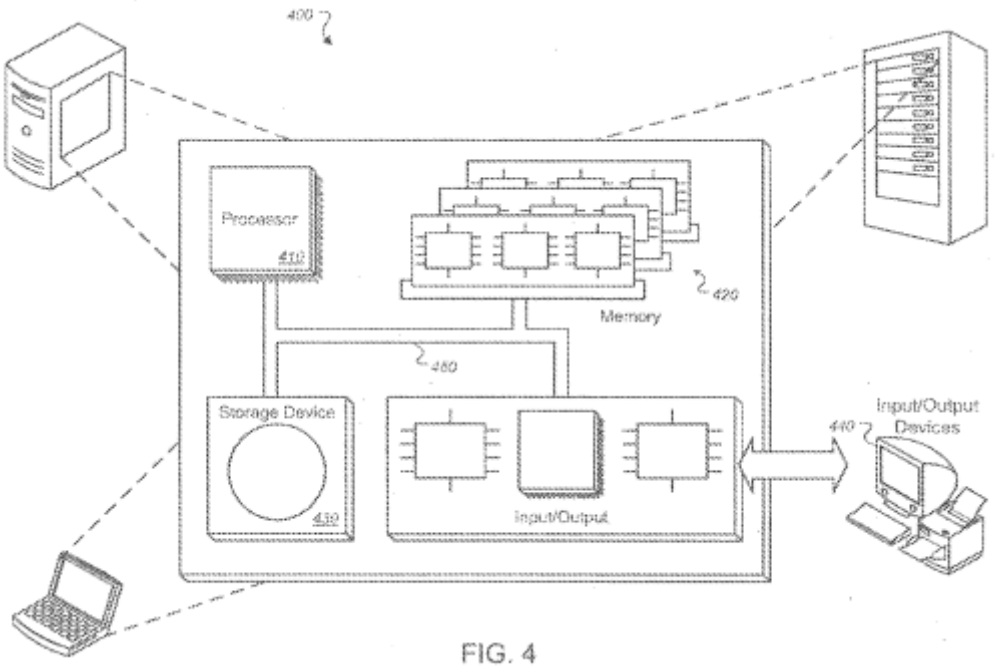
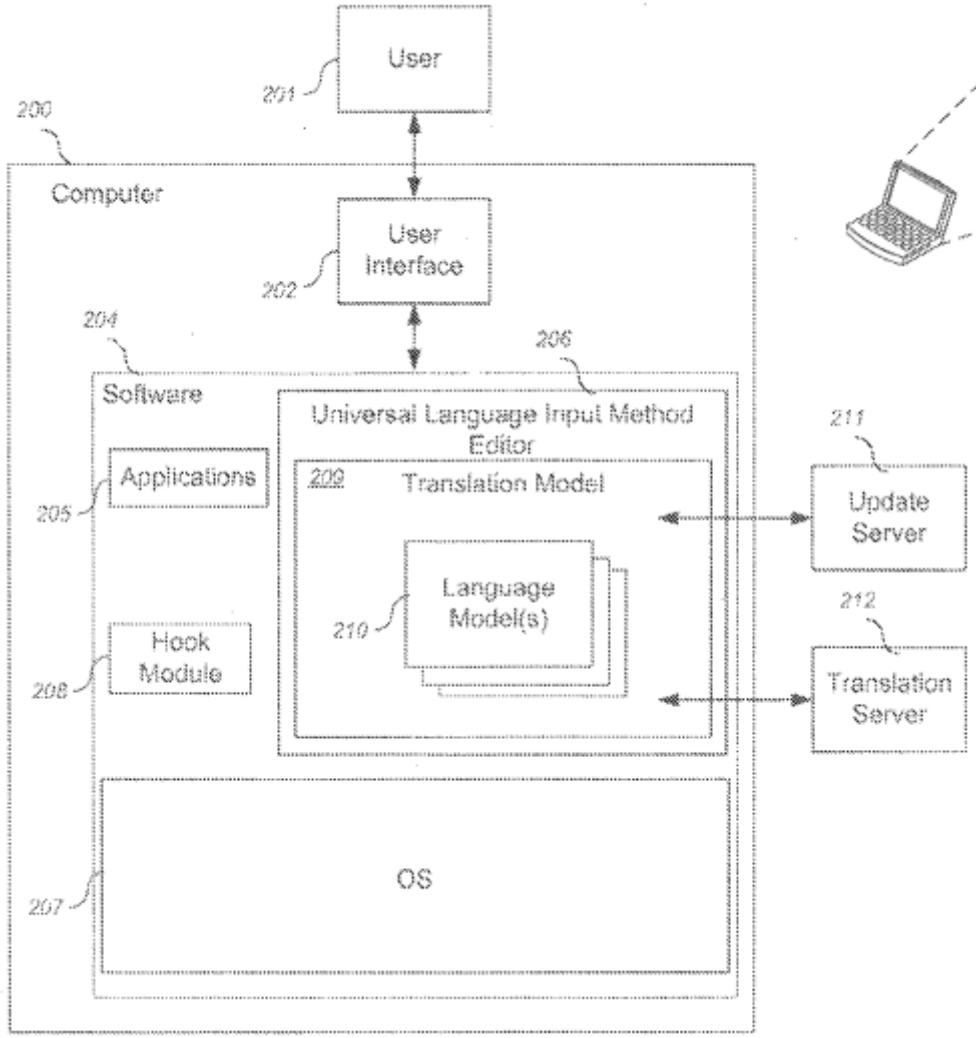


FIG. 4



through the specification and the drawings

Extend the search to the citing documents …

- Bibliographic data
- Description
- Claims
- Mosaics
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- **Citing documents**
- INPADOC legal status
- INPADOC patent family

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23 documents citing **US2009210214 (A1)**

Sort by: Priority date | Sort order: Descending | Sort

1. Multi-Modal Input on an Electronic Device

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
BALLINGER BRANDON M [US] SCHALKWYK JOHAN [US] (+3)	GOOGLE INC [US]	G06F17/289 G10L15/18 G10L15/183 (+4)	G10L15/18 G10L15/26	US2014288929 (A1) 2014-09-25 US9251791 (B2) 2016-02-02	2009-12-23

2. Business Intelligent In-Document Suggestions

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
SCOTT MATTHEW ROBERT [CN] WANG CHAO [CN] (+1)	SCOTT MATTHEW ROBERT [CN] WANG CHAO [CN] (+2)	G06F17/30637	G06F17/30	US2014040238 (A1) 2014-02-06 US8959109 (B2) 2015-02-17	2012-08-06

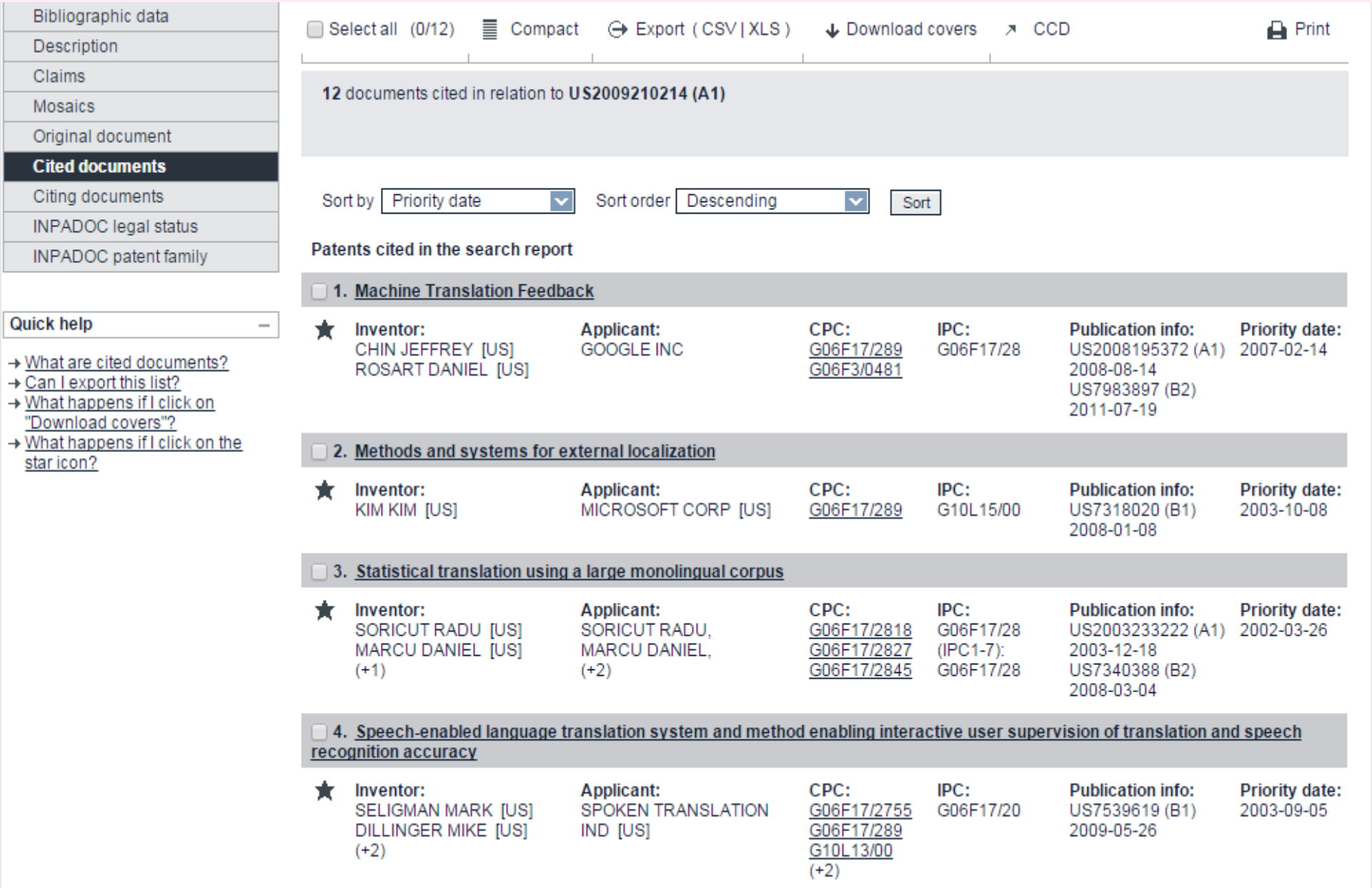
3. IMAGE DISPLAY APPARATUS

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
OHGAKE MITSURU [JP]	OHGAKE MITSURU [JP]	G06F17/275 G06F9/4448 G09G5/003 (+6)	G09G5/24	US2014035928 (A1) 2014-02-06	2012-07-31

4. CROSS-LINGUAL INPUT METHOD EDITOR

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
SCOTT MATTHEW ROBERT [CN] NGARI JOSEPH K [US] (+5)	MICROSOFT CORP [US] SCOTT MATTHEW ROBERT [CN] (+6)	G06F17/24 G06F17/276 G06F17/289 (+2)	G06F3/023	WO2014000267 (A1) 2014-01-03	2012-06-29

… and to the cited documents …



Bibliographic data
Description
Claims
Mosaics
Original document
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12 documents cited in relation to **US2009210214 (A1)**

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Patents cited in the search report

1. Machine Translation Feedback

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
CHIN JEFFREY [US] ROSART DANIEL [US]	GOOGLE INC	G06F17/289 G06F3/0481	G06F17/28	US2008195372 (A1) 2008-08-14 US7983897 (B2) 2011-07-19	2007-02-14

2. Methods and systems for external localization

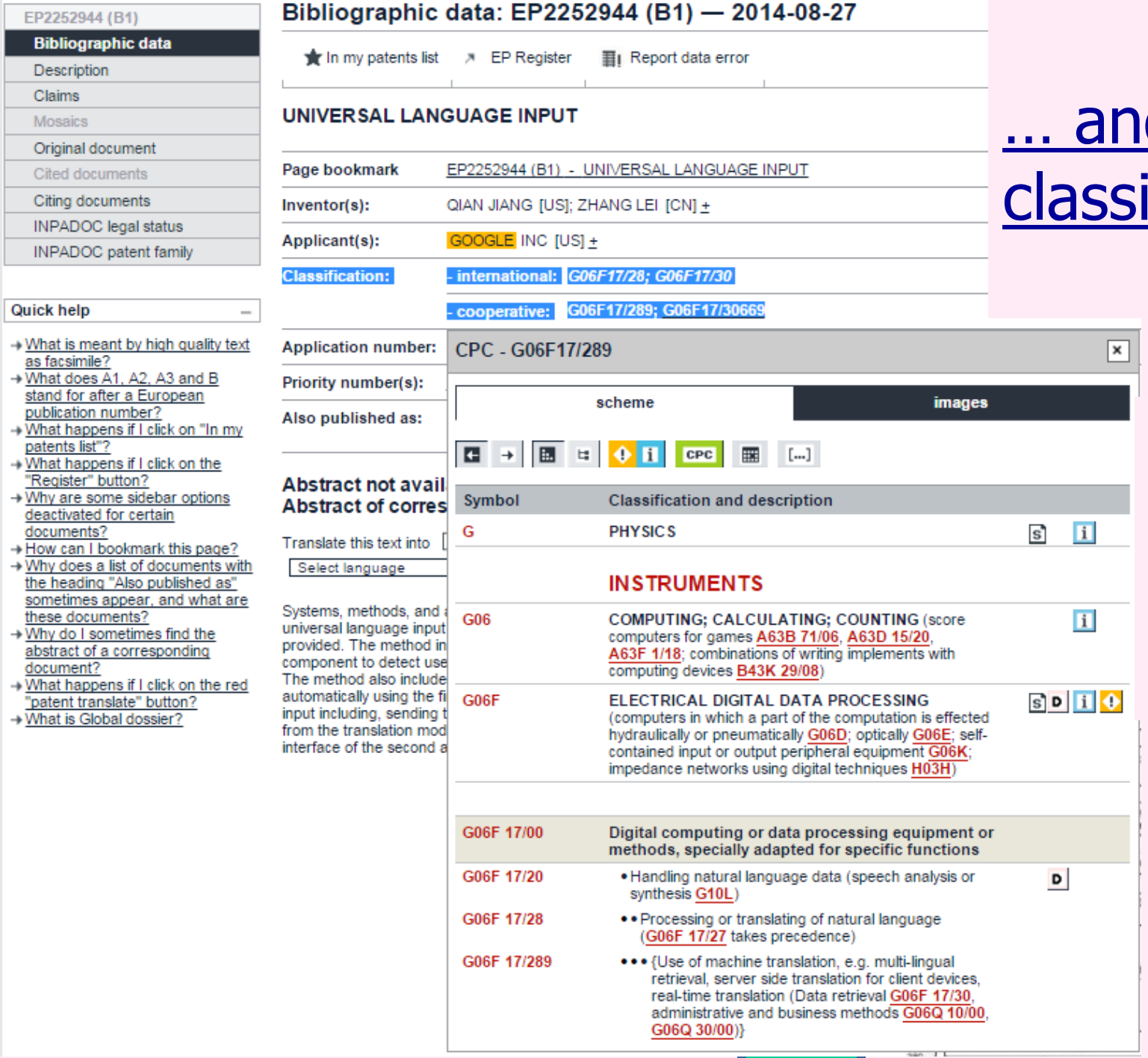
Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
KIM KIM [US]	MICROSOFT CORP [US]	G06F17/289	G10L15/00	US7318020 (B1) 2008-01-08	2003-10-08

3. Statistical translation using a large monolingual corpus

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
SORICUT RADU [US] MARCU DANIEL [US] (+1)	SORICUT RADU, MARCU DANIEL, (+2)	G06F17/2818 G06F17/2827 G06F17/2845	G06F17/28 (IPC1-7): G06F17/28	US2003233222 (A1) 2003-12-18 US7340388 (B2) 2008-03-04	2002-03-26

4. Speech-enabled language translation system and method enabling interactive user supervision of translation and speech recognition accuracy

Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
SELIGMAN MARK [US] DILLINGER MIKE [US] (+2)	SPOKEN TRANSLATION IND [US]	G06F17/2755 G06F17/289 G10L13/00 (+2)	G06F17/20	US7539619 (B1) 2009-05-26	2003-09-05



[... and to the classification...]

G06F 17/289

Machine translation

… and continue the search…

Approximately **3,924** results found in the Worldwide database for:
G06F17/289 as the Cooperative Patent Classification
Only the first **500** results are displayed.

1 ▸

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	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
1. Generation, at least in part, of at least one service request, and/or response to such request	DUBAL SCOTT P [US] CONNOR PATRICK [US]	INTEL CORP [US]	G06F17/289 H04L67/10 H04L67/1002	H04W72/04 H04W72/12	TW201547309 (A) 2015-12-16	2014-04-08
2. Method, system and recording medium for providing dictionary function and file distribution system	LEE TAE-HOON [KR] KIM JONG-HWAN [KR] (+6)	NAVER CORP [KR]	G06F17/2735 G06F17/289	G06F17/28 G06F17/30	TW201544977 (A) 2015-12-01	2014-05-27
3. Fragmented Video Systems	LEE PUI SHAN XANAZ [HK]	LEE PUI SHAN XANAZ [HK]	G06F17/289 G06T11/60 H04N7/15 (+1)	G06F17/28 G06T11/60 H04N7/15 (+1)	US2016062990 (A1) 2016-03-03	2014-09-02
4. ON-LINE VOICE TRANSLATION METHOD AND DEVICE			G06F17/2854 G06F17/289 G10L15/005 (+1)	G06F17/28 G06F17/30 G10L15/00 (+1)	KR20160015218 (A) 2016-02-12	2013-12-25

...until you get the closest prior art

Closest prior art can be any published document (patent or non-patent publication from any countries and in any languages

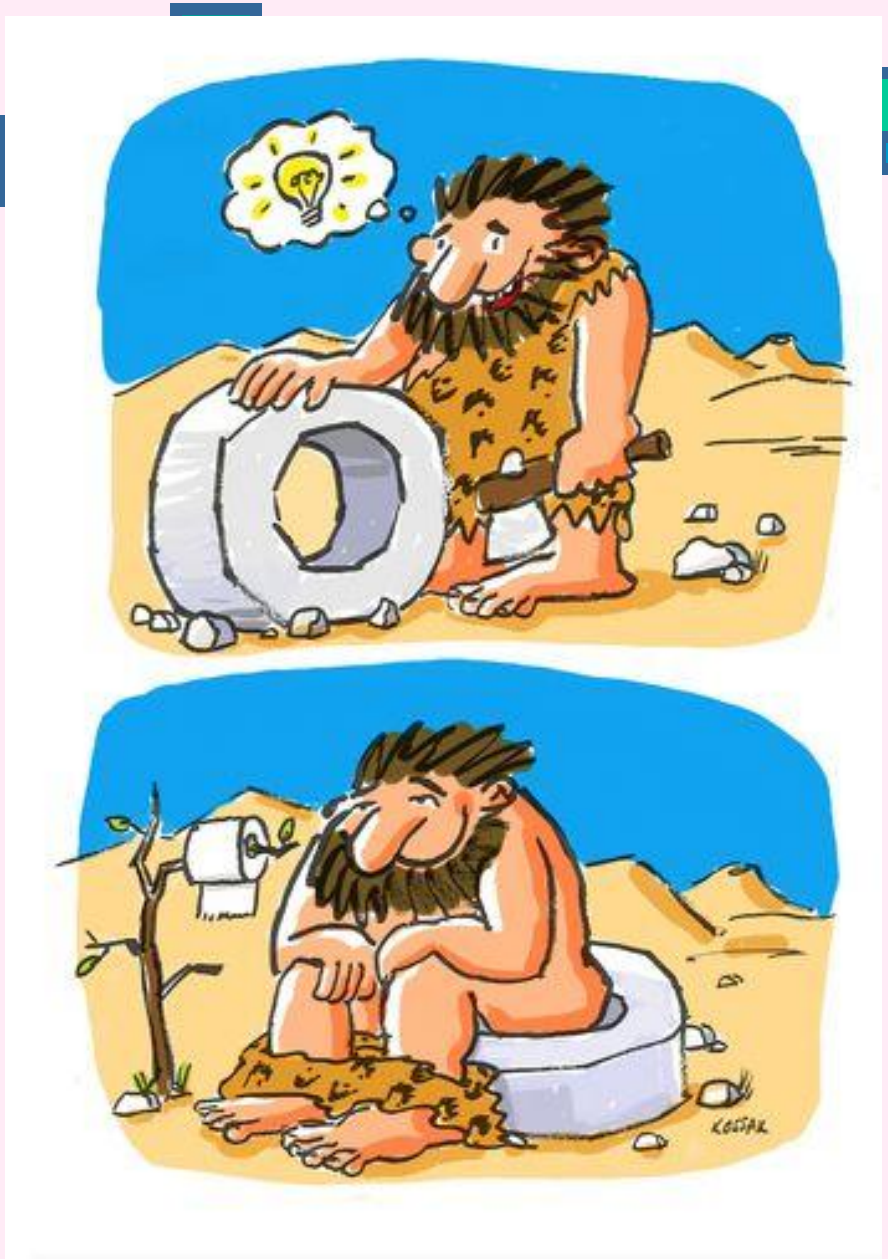
Your invention is **novel** if there is **at least one difference** from the closest prior art

Your invention is **inventive** if there the difference is **not obvious**, namely it **solves a technical problem**

Now I can write my claim

Pre-chacterising part= closest prior art

Characterising part=
Differences from the closest prior art →
Inventive step?



Novelty and inventive step are not destroyed by similar features having different functions

most inventions are small improvements starting from the closest prior art, each solving a different problem

Patentability of Business related inventions

- Art. 52-54-56 EPC
- (1)European patents shall be granted for anyinventions which are susceptible of industrial application, which are new and which involve an inventive step.
- (2) Unpatentable: (a) discoveries, scientific theories and **mathematical methods**; (b) aesthetic creations; (c) schemes, rules and **methods for performing mental acts, playing games or doing business**, and programs for computers;
- (d) **presentations of information**.
- (3) The provisionsof paragraph 2 shall exclude patentability of subject-matter or activities as such.
-

Eligibility of the claims

- Tho decide if a claim is eligibile the simplest way is to decide whether it is novel and inventive.
- In fact, inventive step is releated to the capability of solving a **technical** problem
- If the problem is not technical, the claim is not eligible.
- Normally, it is not considered eligible if the claimed features fall within the excluded subject matter **as such**: discoveries, scientific theories, mathematical methods; aesthetic creations; schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers; presentations of information.
- On the other hand, if the claim contains any eligible (non-excluded) feature the claim is said to have "technical character".

Technical aspects of the CII claims

- a patentable claim should specify a "**technical solution to a technical problem**"
- Examples:
- a new service is proposed, providing links to automatic translators by a new app for smartphones (not patentable)
- The Google automatic translation system as patented in EP2252944B2

System and Method claims

Result list

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EP as the publication number AND **cisco** as the applicant
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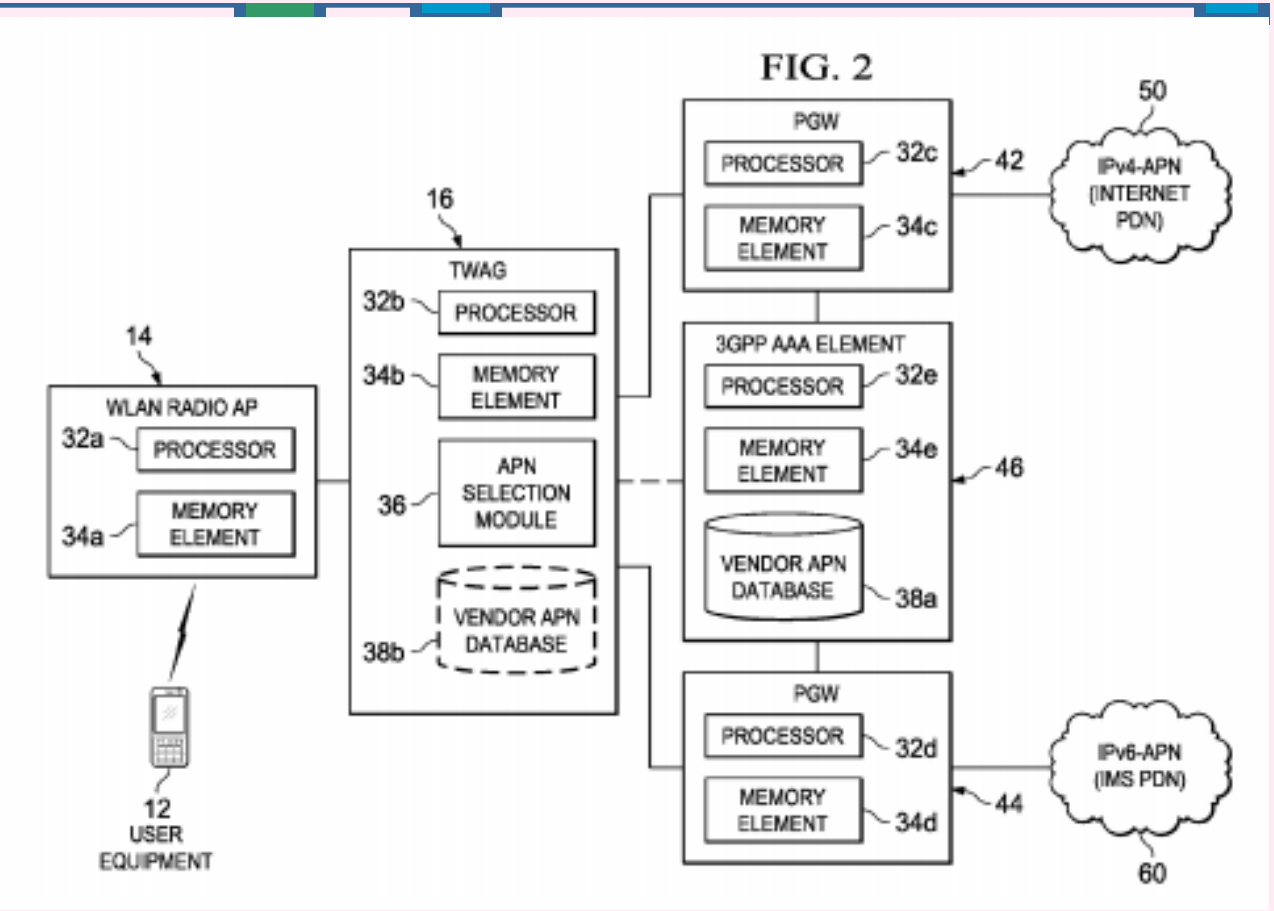
	Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
1. WIDEBAND SERVICE PROVISIONING	CHAPMAN JOHN T [US] BERNSTEIN ALON SHLOMO [US] (+5)	CISCO TECH INC [US]	H04L12/2801 H04L61/2015 H04N21/42676 (+3)	H04J1/00 H04L12/28 H04L12/43 (+2)	EP2983330 (A2) 2016-02-10	2004-05-25
2. SELECTIVE DIVERSION AND INJECTION OF COMMUNICATION TRAFFIC	BREMLER BARR ANAT [IL] NUSSBACHER HANK [IL] (+2)	CISCO TECH INC [US]	H04L63/0218 H04L63/0245 H04L63/145 (+1)	G06F15/16 G06F15/173 H04L12/28 (+2)	EP2977910 (A1) 2016-01-27	2003-04-09
3. SYSTEM AND METHOD FOR INTERNET PROTOCOL VERSION-BASED MULTIPLE ACCESS POINT NAME SUPPORT IN A NETWORK ENVIRONMENT	GRAYSON MARK [GB] GUNDAVELLI SRINATH [US]	CISCO TECH INC [US]	H04L61/2007 H04L61/6013 H04L61/6068 (+3)	H04L29/12 H04W76/02	EP2993868 (A1) 2016-03-09	2014-09-08
4. SYSTEM AND METHOD FOR DISTRIBUTION OF RADIO CHANNEL STATE AND BASE STATION CONGESTION STATE IN A NETWORK ENVIRONMENT	BOSCH HENDRIKUS G P [NL] SAMUEL LOUIS GWYN [GB] (+4)	CISCO TECH INC [US]	H04L1/0026 H04L12/6418 H04L12/66 (+4)	H04L1/00 H04L12/66 H04W72/12	EP2985939 (A1) 2016-02-17	2014-08-12
5. CALL PRESERVATION ON HANDOVER	YOSHIZAWA TAKAHITO [BE] GANDHI INDERMEET SINGH [IN] (+2)	CISCO TECH INC [US]	H04W36/0016 H04W36/0033 H04W36/04 (+6)	H04W36/00 H04W36/04 H04W84/04 (+1)	EP2986052 (A1) 2016-02-17	2014-08-11

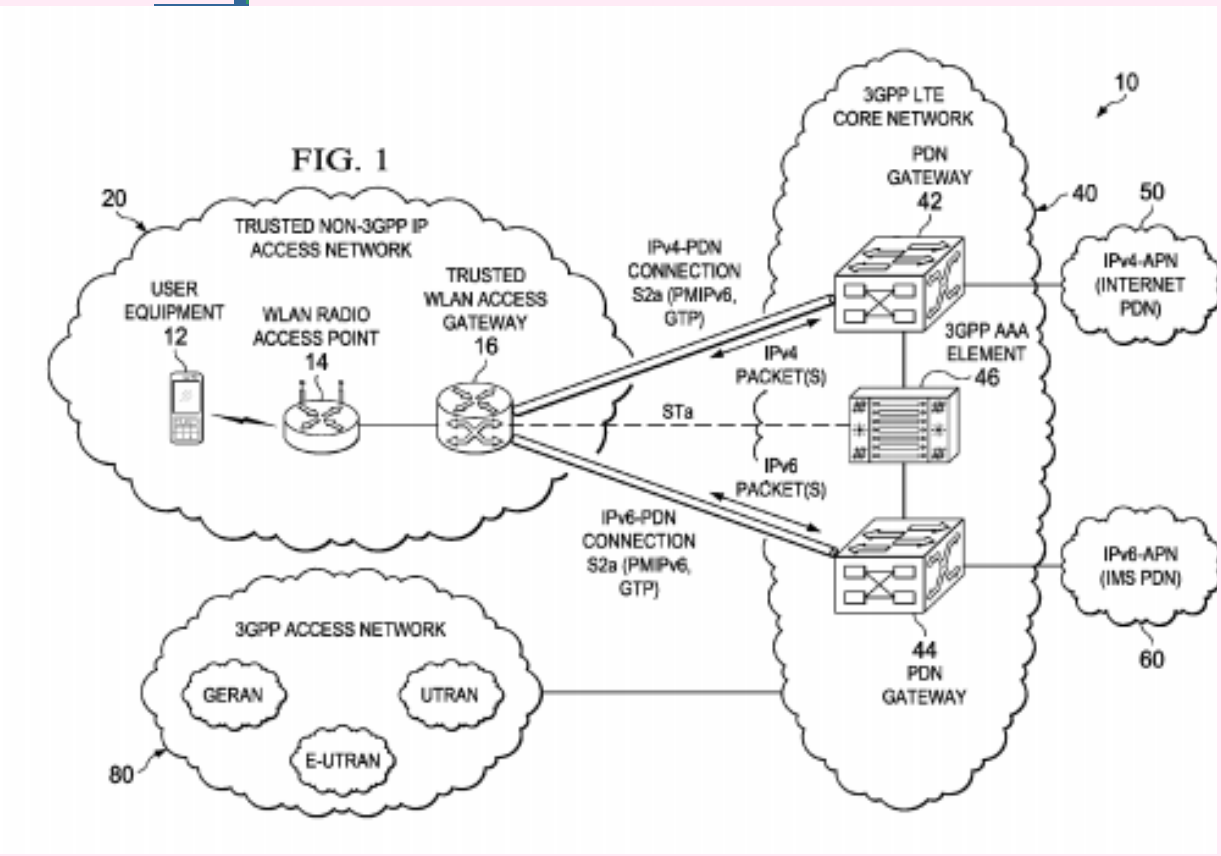
Search for Cisco Tech

Method claims



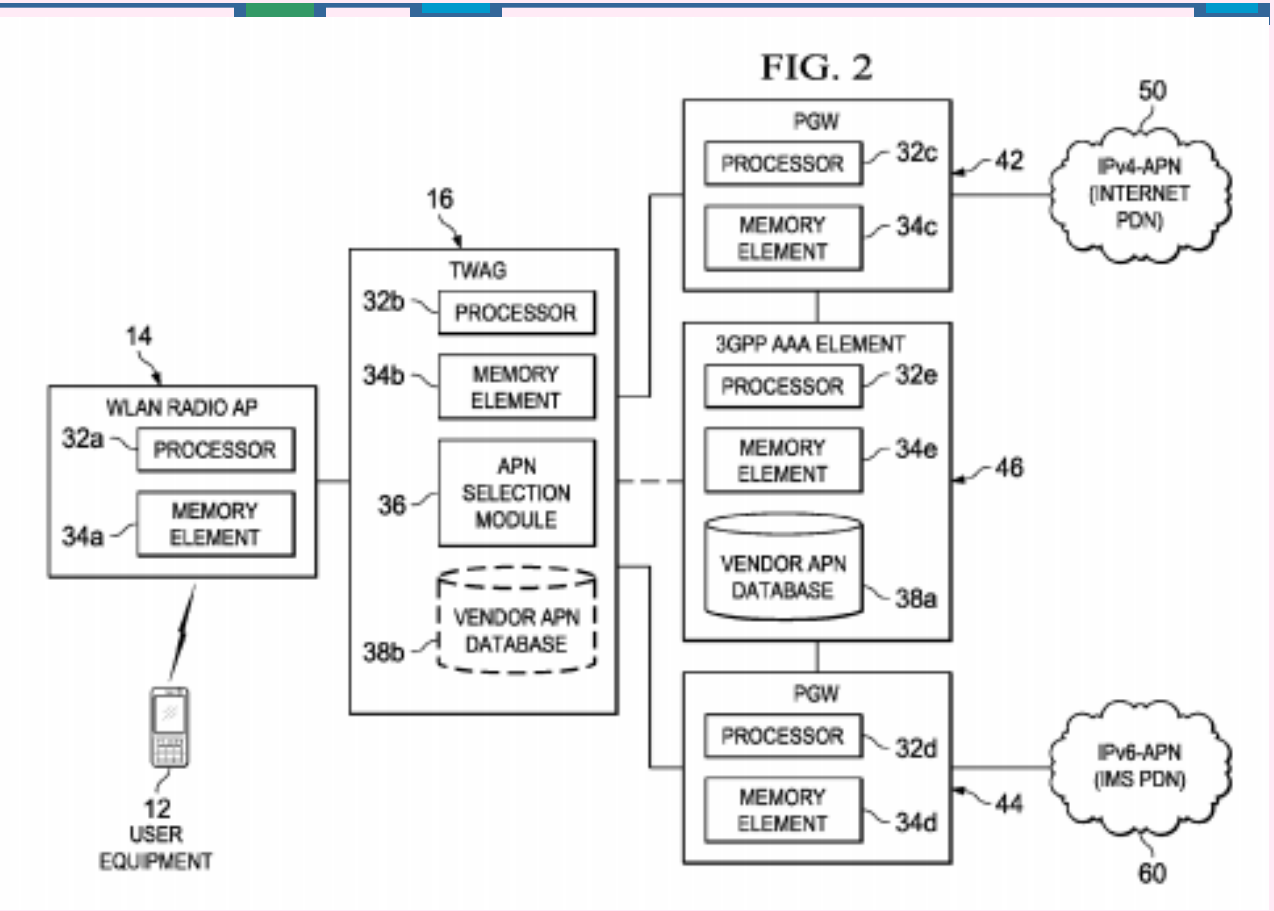
A method for a communication network comprising:
receiving an attach trigger for a user equipment (UE) within a trusted access network;
configuring a first signaling path for the UE for a first Internet protocol (IP) connection; and
configuring a second signaling path for the UE for a second IP connection, wherein the first and second IP connections are associated with different IP version type

System claims



A system, comprising:
a memory element for storing data; and
a processor that executes instructions associated with the data, wherein the processor and memory element cooperate such that the apparatus is configured for:
receiving an attach trigger for a user equipment (UE) within a trusted access network;
configuring a first signaling path for the UE for a first Internet protocol (IP) connection; and
configuring a second signaling path for the UE for a second IP connection, wherein the first and second IP connections are associated with different IP version types.

Method claims



A method for a communication network comprising:
receiving an attach trigger for a user equipment (UE) within a trusted access network;
configuring a first signaling path for the UE for a first Internet protocol (IP) connection; and
configuring a second signaling path for the UE for a second IP connection, wherein the first and second IP connections are associated with different IP version type

Thank You

ABM Agenzia Brevetti & Marchi
Ing. Marco Celestino
Viale Giovanni Pisano, 31
I-56123 PISA
ITALY Europe
Tel +39 050 8312216
Fax +39 050 8310708
Mob: +39-335-6342222
http://www.abmpat.com
e-mail information: abmpat@abmpat.com
personal e-mail: mcelestino@abmpat.com