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12/844,532 27 July 2010 (27.07.2010) US(71) Applicant (for all designated States except US): **MICROSOFT CORPORATION** [US/US]; One Microsoft Way, Redmond, Washington 98052-6399 (US).(72) Inventors: **LAUTER, Kristin Estella**; c/o Microsoft Corporation, LCA - International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US). **CHASE, Melissa E.**; c/o Microsoft Corporation, LCA - International Patents, One Microsoft Way, Redmond, Washington 98052-6399 (US).

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## Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

## Published:

- with international search report (Art. 21(3))

[Continued on next page]

(54) Title: ANONYMOUS HEALTHCARE AND RECORDS SYSTEM

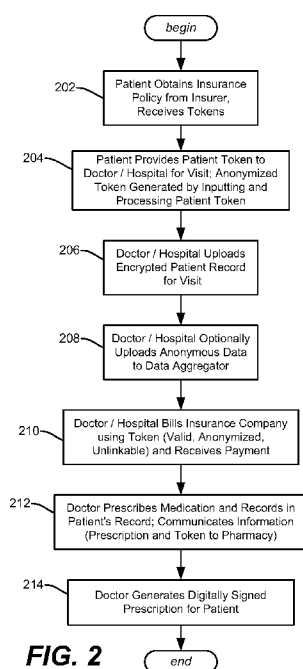


FIG. 2

(57) Abstract: Described herein is using cryptographic techniques (anonymous proof systems) to ensure the anonymity of health records when processing payment claims related to insurers and pharmacies. A patient receives a patient token from an insurer, which the patient delegates to a healthcare provider. The delegated token is processed into an anonymized token that identifies the healthcare provider and the medical service provided, without including information by which the patient is directly identifiable. The anonymized token includes data by which the insurer validates the token. For prescriptions, an anonymized token may be generated as an endorsement for the patient (e.g., a printed barcode) and an unendorsed token transmitted to the pharmacy. The pharmacy combines data of the endorsement and the unendorsed token into an anonymous combined token that is transmitted to the insurer for payment.



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- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))* (88) **Date of publication of the international search report:**  
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## INTERNATIONAL SEARCH REPORT

International application No.  
**PCT/US2011/044009****A. CLASSIFICATION OF SUBJECT MATTER****G06Q 50/00(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

G06Q 50/00; G06F 17/60; G06Q 40/00; H04L 9/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) &amp; Keywords: anonymized token, patient identity, insurer

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| A         | US 2007-0282637 A1 (NIGEL SMITH) 06 December 2007<br>See paragraphs [0023]-[0024], [0030]-[0038] and claims 1-2, 4-6.                  | 1-15                  |
| A         | JP 2004-295310 A (FUJITSU LTD.) 21 October 2004<br>See paragraphs [0023]-[0056], [0061] and claims 1-5.                                | 1-15                  |
| A         | KR 10-0552692 B1 (SAMSUNG ELECTRONICS CO., LTD.) 20 February 2006<br>See page 4, line 9 - page 5, line 24 and claims 1-2, 4, 6, 14-15. | 1-15                  |
| A         | US 2005-0043964 A1 (CHRISTIAN THIELSCHER et al.) 24 February 2005<br>See paragraphs [0028]-[0031] and claims 1-3.                      | 1-15                  |

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&amp;" document member of the same patent family

Date of the actual completion of the international search

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2011/044009**

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
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