Abstract: Provided are a method and apparatus for managing an access privilege of an application in a Connected Limited Device Configuration (CLDC) and Open Service Gateway initiative (OSGi) environment. The method includes marking a privileged code in the application, executing the privileged code in a secured thread having a unique thread identifier, identifying the privilege code by mapping the unique thread identifier with an application identifier from a mapping table, checking a permission policy file to determine what kind of resource access privilege the identified privileged code has, and permitting the application to access the resources according to the determination results. Accordingly, when an application tries to access resources in a framework, an access privilege of the application can be managed so that no applications can maliciously access the resources by identifying the application by using the mapping table and checking the security policy file of the identified application.
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
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## A. CLASSIFICATION OF SUBJECT MATTER

**G06F 21/22(2006.01)1**

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)

IPC 8 G06F 9/44, 9/455,9/48, 12/14, 21/22, 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 since 1975
- Japanese Utility models and applications for Utility models since 1975

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

- e-KIPASS/KIPO internal "privilege", "access", "application", "virtual machine"

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
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<th>Category</th>
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<th>Relevant to claim No</th>
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<tr>
<td>A</td>
<td>US 7146307 B2 (Darryl Moczek) 05 DECEMBER 2006 See abstracts, claims 1 - 9, figures 5 - 7</td>
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<tr>
<td>A</td>
<td>US 6308274 B1 (Michael M Swift) 23 OCTOBER 2001 See abstracts, claims 1 - 10, figures 3 - 4</td>
<td>1 - 15</td>
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- Special categories of cited documents
  - "A" document defining the general state of the art which is not considered to be of particular relevance
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**Date of the actual completion of the international search**

29 JANUARY 2009 (29.01.2009)

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<th>Patent family member(s)</th>
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<tr>
<td>US 7146307 B2</td>
<td>05.12.2006</td>
<td>NONE</td>
<td></td>
</tr>
<tr>
<td>US 7076637 B2</td>
<td>11.07.2006</td>
<td>FI 0416050 A</td>
<td>02.01.2007</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA 2543686 A1</td>
<td>19.05.2005</td>
</tr>
<tr>
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<td></td>
<td>US 2005-0097252 A1</td>
<td>05.05.2005</td>
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<tr>
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<td>WO 2005-045612 A2</td>
<td>19.05.2005</td>
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<td></td>
<td>WO 2005-045612 A3</td>
<td>05.01.2006</td>
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<tr>
<td></td>
<td></td>
<td>JP 2002-517853 A</td>
<td>18.06.2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>US 6308274 B1</td>
<td>23.10.2001</td>
</tr>
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