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Zilliacus et al.   (45) **Date of Patent:**   *Mar. 8, 2011

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(54) **APPARATUS AND ASSOCIATED METHOD FOR DOWNLOADING AN APPLICATION WITH A VARIABLE LIFETIME TO A MOBILE TERMINAL**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 1125 days.

This patent is subject to a terminal disclaimer.

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    G06F 15/16   (2006.01)

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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,757,533 A		7/1988	Allen et al.
4,893,248 A		1/1990	Pitts et al.
5,548,645 A		8/1996	Ananda
5,615,373 A		3/1997	Ho
5,649,187 A		7/1997	Hornbuckle
5,689,560 A		11/1997	Cooper et al.
5,708,709 A	*	1/1998	Rose 705/59
5,857,020 A		1/1999	Peterson, Jr.
5,940,504 A	*	8/1999	Griswold 705/59
5,953,005 A		9/1999	Liu
6,005,938 A		12/1999	Banker et al.
6,008,737 A		12/1999	Deluca et al.
6,009,401 A		12/1999	Horstmann

(Continued)

FOREIGN PATENT DOCUMENTS

EP	0778512	6/1997

(Continued)

OTHER PUBLICATIONS

EP Search Report of EP 00660234 dated Nov. 22, 2005.
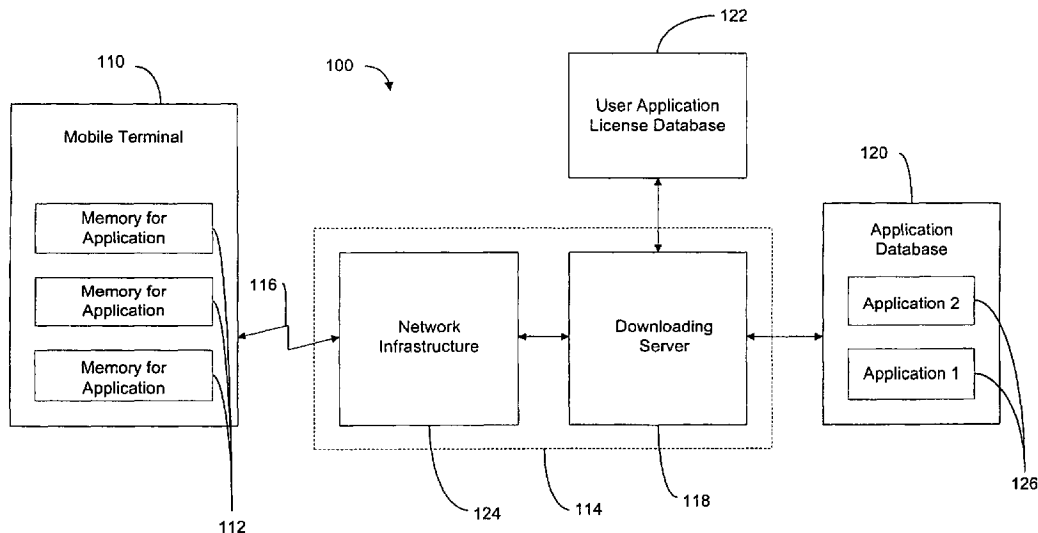
(Continued)

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(57) **ABSTRACT**

Apparatus, and associated method, provides for downloading an application with a selectable lifetime from an application database to a mobile terminal. The mobile terminal user's identification information and the selected lifetime for the application are stored in an application-license database. When the user seeks to download the same application on a subsequent occasion the user is able to download that application for a reduced fee if lifetime remains from when the application was first downloaded. In addition, the application may be configured to delete or uninstall itself from the mobile terminal when the selected lifetime for the application expires.

71 Claims, 4 Drawing Sheets

U.S. PATENT DOCUMENTS

6,021,492	A	2/2000	May
6,026,375	A	2/2000	Hall et al.
6,034,621	A	3/2000	Kaufman
6,075,862	A	6/2000	Yoshida et al.
6,134,593	A	10/2000	Alexander et al.
6,154,745	A	11/2000	Kari et al.
6,272,333	B1	8/2001	Smith
6,349,257	B1	2/2002	Liu et al.
6,356,543	B2	3/2002	Hall et al.
6,366,791	B1 *	4/2002	Lin et al. 455/567
6,385,591	B1 *	5/2002	Mankoff 705/14
6,385,655	B1 *	5/2002	Smith et al. 709/232
6,502,124	B1	12/2002	Shimakawa
6,512,919	B2	1/2003	Ogasawara
6,522,875	B1	2/2003	Dowling et al.
6,574,239	B1	6/2003	Dowling et al.
6,795,925	B2	9/2004	Colvin
6,829,593	B1	12/2004	Ritter et al.
6,832,230	B1 *	12/2004	Zilliacus et al. 707/203
6,898,708	B2	5/2005	Hori
6,947,535	B2	9/2005	Ginzboorg et al.
7,080,051	B1	7/2006	Crawford
2004/0117664	A1	6/2004	Colvin
2004/0160911	A1 *	8/2004	Zilliacus et al. 370/328
2004/0243610	A1	12/2004	Ishiguro
2005/0081042	A1	4/2005	Venkatesan et al.
2005/0188228	A1	8/2005	DeMello et al.

FOREIGN PATENT DOCUMENTS

EP	0 809 221	11/1997
EP	0817103	1/1998
EP	0836132	4/1998
GB	2332126	6/1999
JP	10143357	5/1998
WO	9301550	1/1993
WO	9842098	9/1998
WO	9957875	11/1999

OTHER PUBLICATIONS

Communication dated Apr. 4, 2007 for EP 00 660 234.6-1245.

Kiniry, et al., "A Hands-on Look at Java Mobile Agents", IEEE 1997, pp. 21-30.

European Search Report for Application Serial No. 00660234.6-1245, dated Mar. 18, 2009.
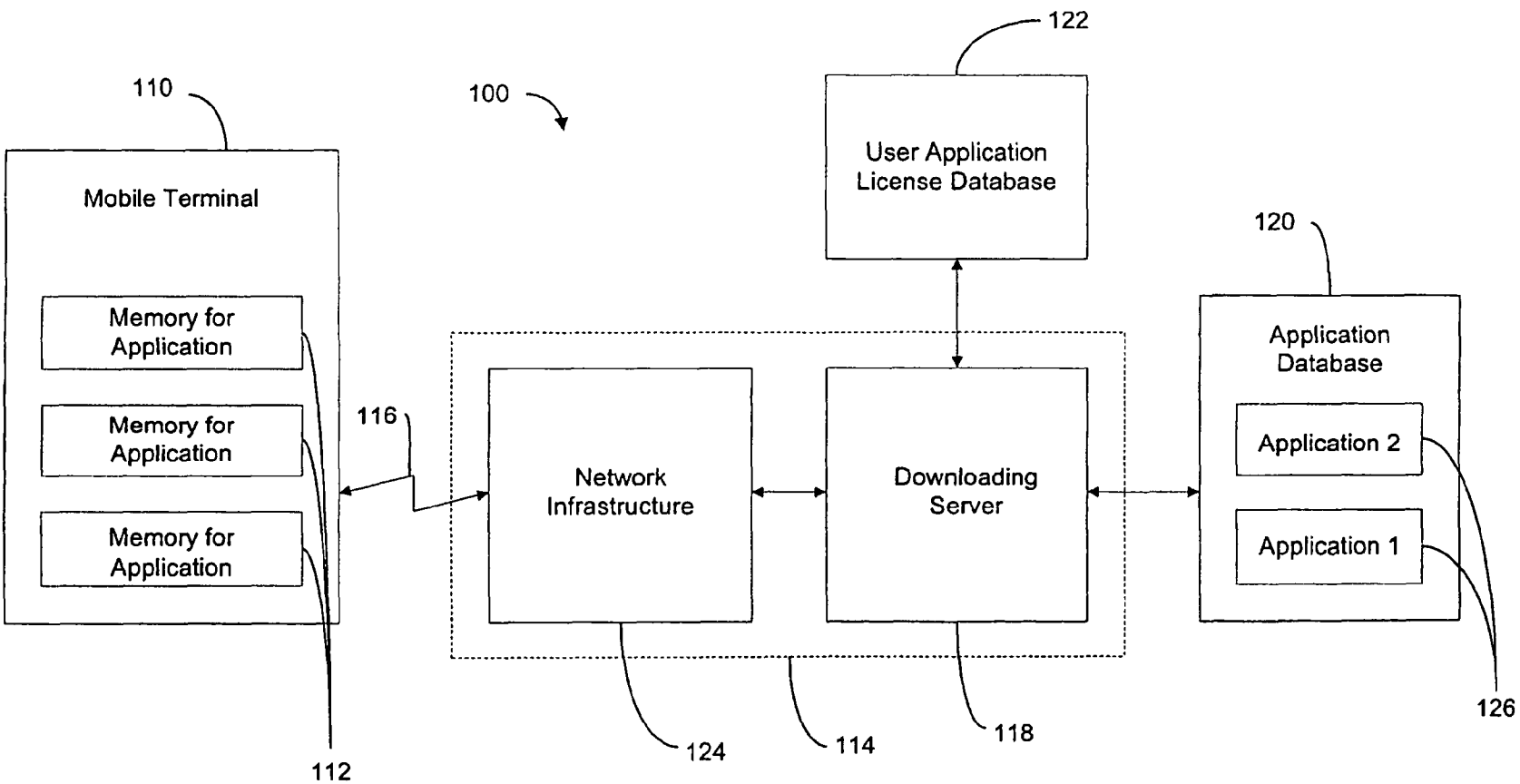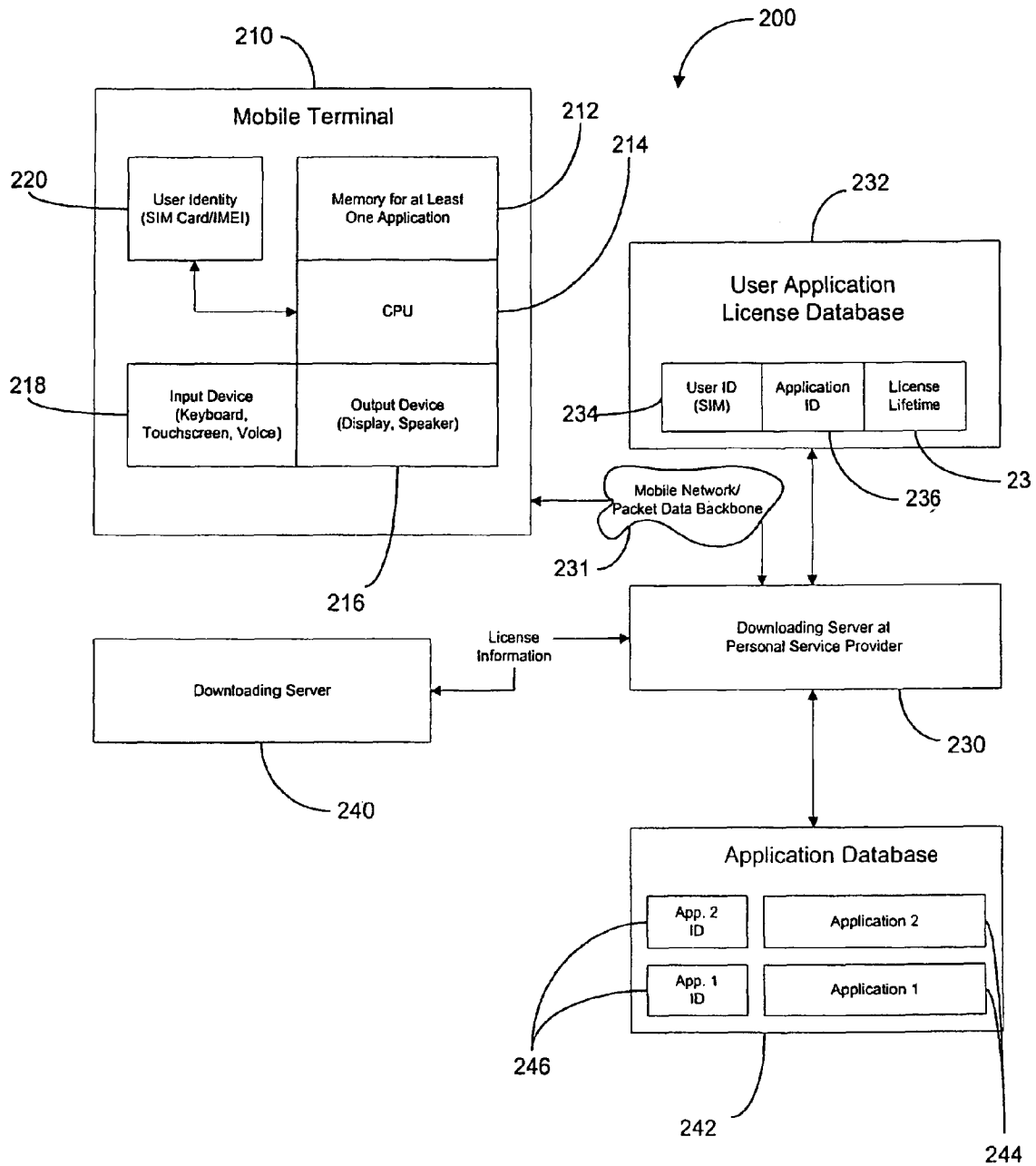
* cited by examiner

110

Mobile Terminal

Memory for
Application

Memory for
Application

Memory for
Application

112

116

100

124

Network
Infrastructure

114

Downloading
Server

118

122

User Application
License Database

120

Application
Database

Application 2

Application 1

126

Figure 1

Figure 2

310

Start Downloading Service

312

User Selects Application

314

User Selects Lifetime for Application

300

316

User Pays for Application

318

Application is Downloaded

No

320

Time Expired?

Yes

322

Application Deletes Itself

Figure 3

DOCKET ALARM
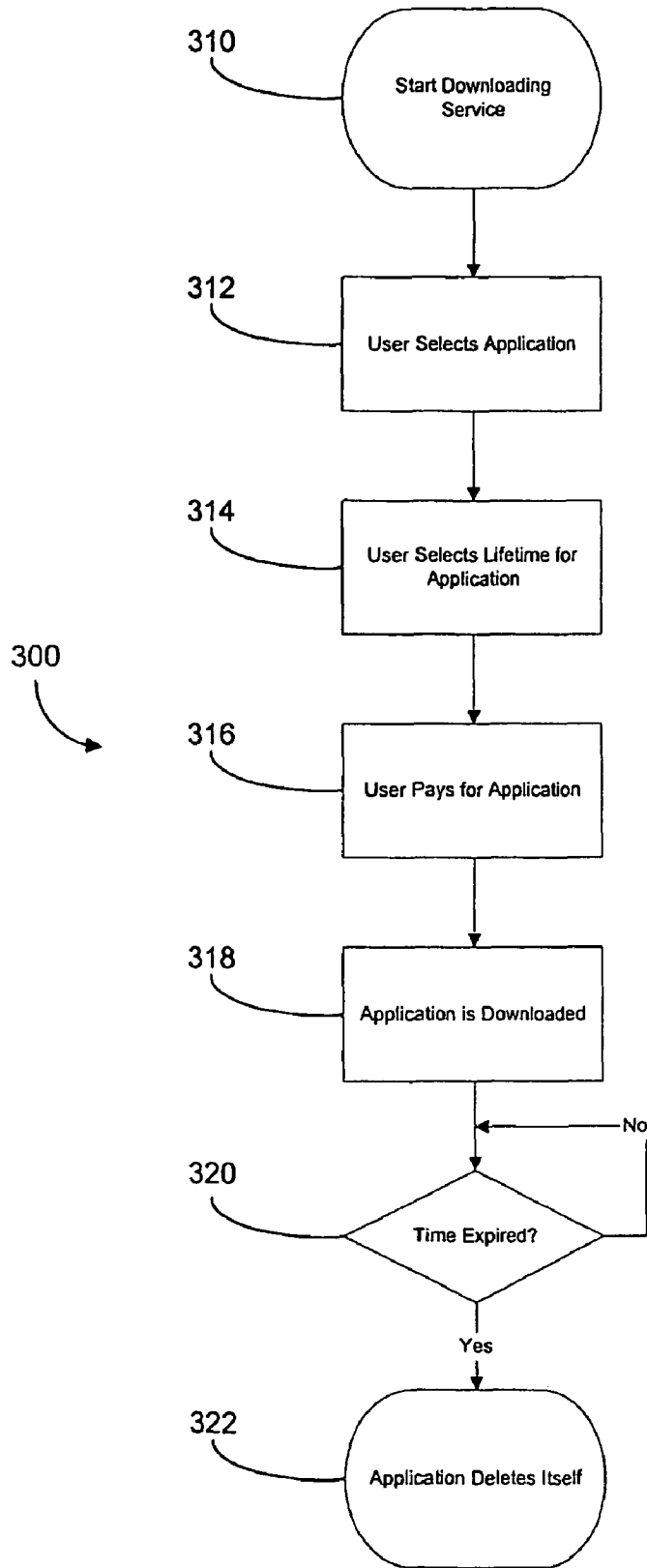
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