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(54) **SYSTEM AND METHOD FOR PROVIDING SEARCH CAPABILITIES ON A WIRELESS DEVICE**

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G06F 13/00 (2006.01)

(52) **U.S. Cl.** **709/206; 707/3**

(58) **Field of Classification Search** **707/3, 707/4; 709/230, 206**

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,590,178 A	12/1996	Murakami et al.	379/96
5,727,950 A	3/1998	Cook et al.	434/350
5,732,074 A	3/1998	Spaur et al.	
5,742,668 A	4/1998	Pepe et al.	379/58
5,742,905 A	4/1998	Pepe et al.	
5,758,293 A	5/1998	Fraiser	
5,790,974 A	8/1998	Tognazzini	
5,793,762 A	8/1998	Penners et al.	
5,796,728 A	8/1998	Rondeau et al.	
5,873,045 A	2/1999	Lee et al.	

5,896,369 A	4/1999	Warsta et al.	
5,918,158 A	6/1999	LaPorta et al.	
5,920,826 A	7/1999	Metso et al.	455/557
5,933,778 A	8/1999	Buhrmann et al.	455/461
5,943,616 A	8/1999	Andersson	
5,944,787 A *	8/1999	Zoken	709/206
5,949,326 A	9/1999	Wicks et al.	
5,978,685 A	11/1999	Laiho	
5,983,073 A	11/1999	Ditzik	
5,987,029 A	11/1999	Kotani et al.	
6,009,462 A *	12/1999	Birrell et al.	709/206
6,012,068 A	1/2000	Boezeman et al.	707/104
6,014,429 A	1/2000	LaPorta et al.	
6,018,665 A	1/2000	Chavez, Jr. et al.	

(Continued)

FOREIGN PATENT DOCUMENTS

EP 0 785 661 A2 7/1997

(Continued)

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(74) *Attorney, Agent, or Firm*—Pillsbury Winthrop Shaw Pittman LLP

(57) **ABSTRACT**

A system and method for enabling users to send and receive messages and other information from mobile devices and enabling users to access server-based information using mobile devices over wireless data networks are disclosed. The present invention further provides search capabilities on a wireless device. Search criteria may include searching messages (e.g., emails, memos, and/or other correspondences and documents) based on various fields, such as sender, date, subject and other parts of a message. Other search criteria may also be used. The present invention may also provide an application search form to perform various search functions. A search form may contain a formula field where the field may contain a select formula that may be evaluated on the server for the search operation. This formula typically may reference other fields on the search form.

35 Claims, 10 Drawing Sheets

Mail Menu

640	630		
1		New Mail by Date	610
2		New Mail by Author	612
3		Inbox by Date	614
4		Inbox by Author	616
5		Drafts	618
6		Trash	620
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U.S. PATENT DOCUMENTS

6,021,433	A	2/2000	Payne et al.	
6,038,595	A	3/2000	Ortony	
6,073,034	A	6/2000	Jacobsen et al.	
6,073,148	A	6/2000	Rowe et al.	707/542
6,081,706	A	6/2000	Muths et al.	
6,085,098	A	7/2000	Moon et al.	
6,088,340	A	7/2000	Buchholz et al.	370/310
6,088,457	A	7/2000	Parkinson et al.	
6,088,730	A	7/2000	Kato et al.	
6,091,956	A	7/2000	Hollenberg	
6,104,334	A	8/2000	Allport	
6,108,727	A	8/2000	Boals et al.	
6,112,099	A	8/2000	Ketola	
6,118,856	A	9/2000	Paarsmarkt et al.	
6,119,155	A	9/2000	Rossmann et al.	
6,122,263	A	9/2000	Dahlin et al.	
6,128,509	A	10/2000	Veijola et al.	
6,131,040	A	10/2000	Knuutila et al.	
6,134,432	A	10/2000	Holmes et al.	
6,137,473	A	10/2000	Cortopassi et al.	
6,138,004	A	10/2000	McGregor et al.	
6,138,009	A	10/2000	Birgerson	
6,138,036	A	10/2000	O'Kinneide	
6,144,942	A	11/2000	Ruckdashel	705/9
6,151,491	A	11/2000	Farris et al.	
6,152,369	A	11/2000	Wilz, Sr. et al.	
6,157,935	A *	12/2000	Tran et al.	715/503
6,161,134	A	12/2000	Wang et al.	709/220
6,169,911	B1	1/2001	Wagner et al.	455/566
6,199,099	B1	3/2001	Gershman et al.	709/203
6,292,473	B1	9/2001	Duske, Jr. et al.	370/316
6,313,852	B1	11/2001	Ishizaki et al.	345/751

6,356,543	B2	3/2002	Hall et al.	370/352
6,356,905	B1	3/2002	Gershman et al.	707/10
6,400,958	B1	6/2002	Isomursu et al.	455/466
6,401,085	B1	6/2002	Gershman et al.	707/4
6,438,575	B1	8/2002	Khan et al.	709/200
6,480,853	B1	11/2002	Jain	707/10
6,509,913	B2	1/2003	Martin, Jr. et al.	345/762
6,526,274	B1	2/2003	Fickes et al.	455/414
6,529,903	B2 *	3/2003	Smith et al.	707/7
6,556,997	B1	4/2003	Levy	707/10
6,560,604	B1	5/2003	Fascenda	707/10
6,601,061	B1	7/2003	Holt et al.	707/3
6,633,759	B1	10/2003	Kobayashi	455/419
6,636,854	B2	10/2003	Dutta et al.	707/10
6,671,715	B1	12/2003	Langseth et al.	709/203
6,678,361	B2	1/2004	Rooke et al.	379/93.24
6,684,088	B1	1/2004	Halahmi	455/566
6,701,378	B1	3/2004	Gilhuly et al.	709/249
6,725,275	B2	4/2004	Eyal	709/231
6,741,853	B1	5/2004	Jiang et al.	455/418
2001/0006889	A1	7/2001	Kraft	455/412
2001/0054020	A1	12/2001	Barth et al.	705/37
2002/0049858	A1 *	4/2002	Frietas et al.	709/246
2002/0054090	A1	5/2002	Silva et al.	345/747
2002/0065110	A1	5/2002	Enns et al.	455/566
2002/0103935	A1	8/2002	Fishman et al.	709/246
2002/0107904	A1	8/2002	Talluri et al.	709/202
2004/0205106	A1	10/2004	Adler et al.	709/200

FOREIGN PATENT DOCUMENTS

WO WO 98/00787 1/1998

* cited by examiner

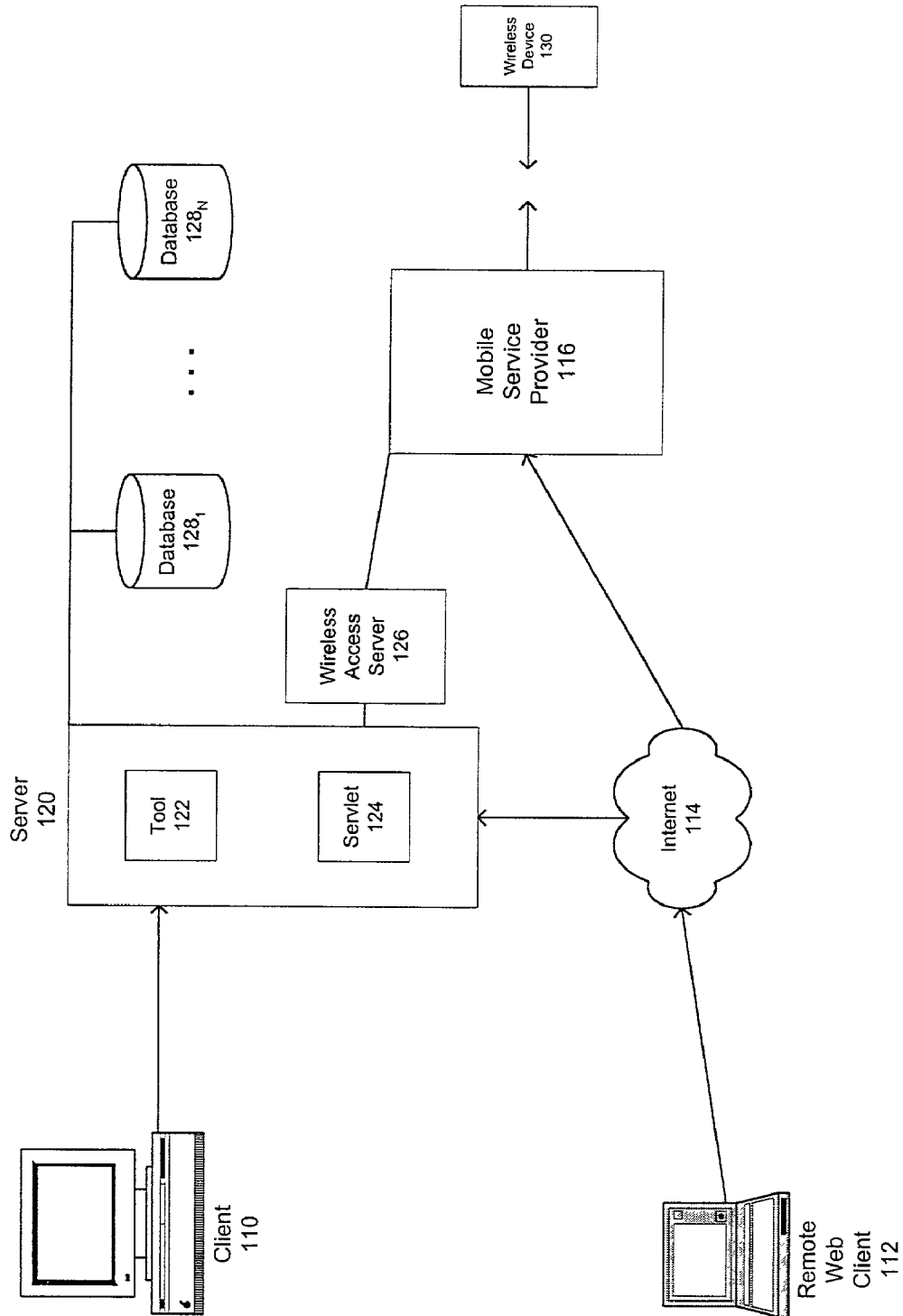


FIG. 1

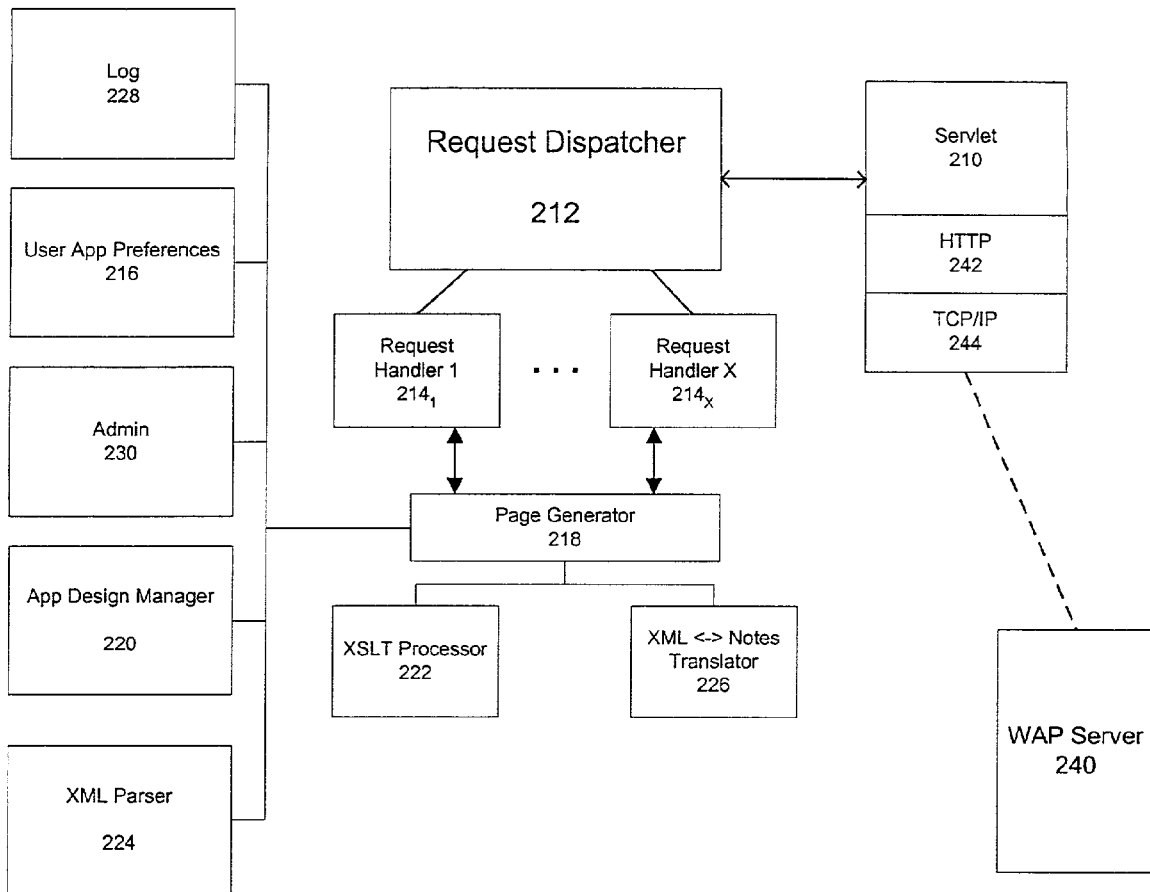


FIG. 2

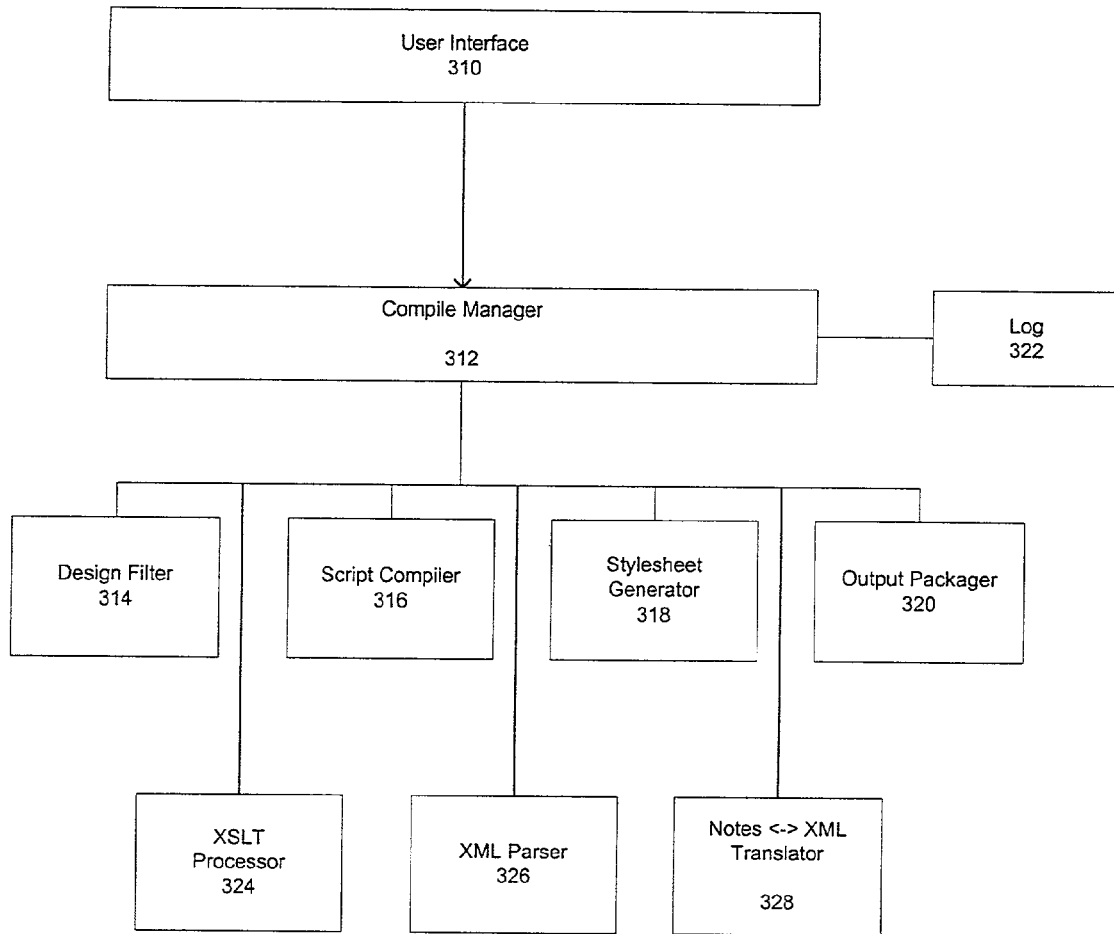


FIG. 3

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