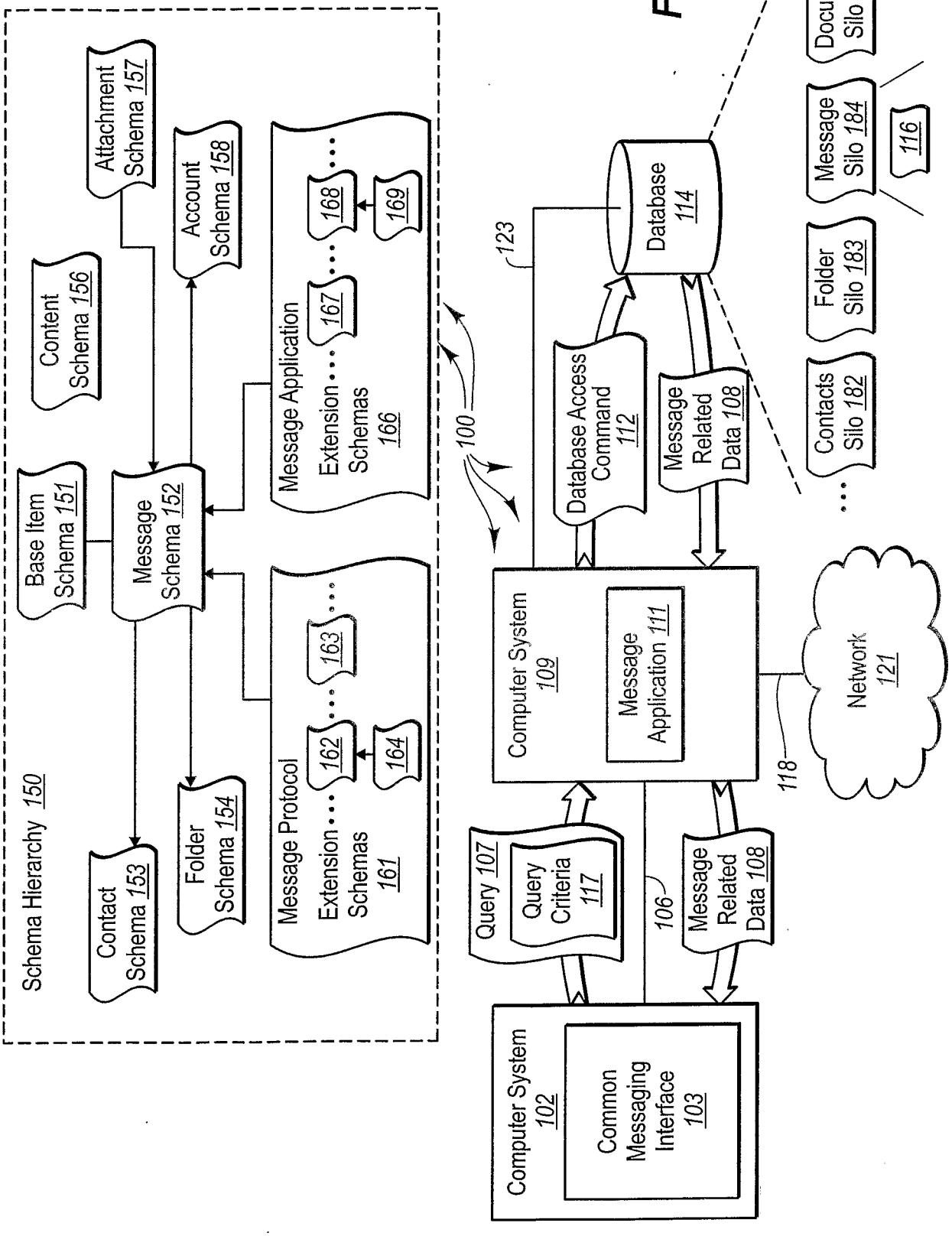

Schema Hierarchy 150
Base Item Schema 151
Message Schema 152
Contact Schema 153
Folder Schema 154
Content Schema 156
Attachment Schema 157
Account Schema 158
Message Application Extension Schemas 166
Message Protocol Extension Schemas 161
100
123
Database 114
Database Access Command 112
Message Related Data 108
Computer System 109
Message Application 111
Network 121
118
Query 107
Query Criteria 117
106
Message Related Data 108
Computer System 102
Common Messaging Interface 103
Contacts Silo 182
Folder Silo 183
Message Silo 184
Document Silo 186
116

Fig. 1

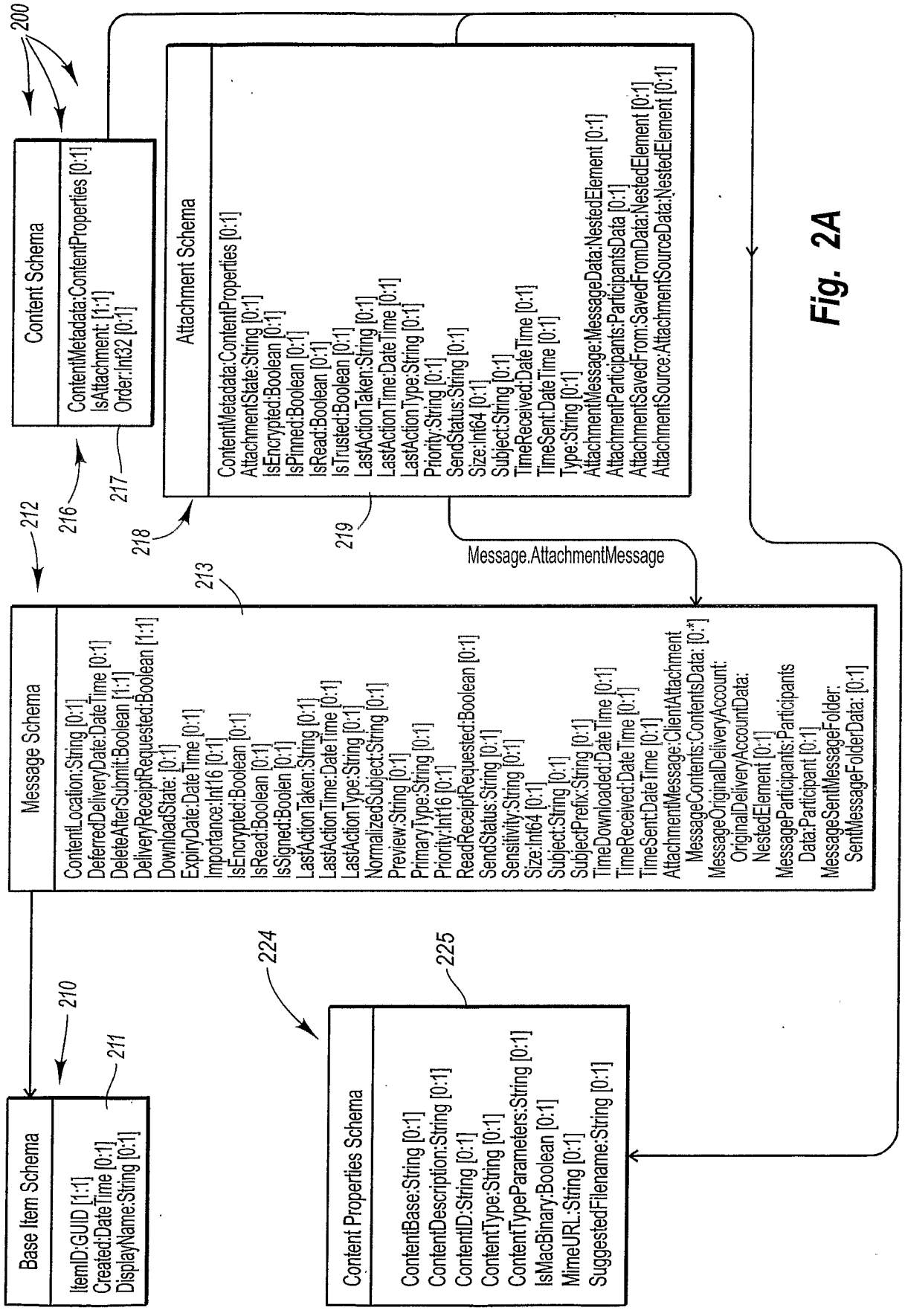

200
Content Schema
ContentMetadata:ContentProperties [0:1]
IsAttachment: [1:1]
Order:Int32 [0:1]
Attachment Schema
ContentMetadata:ContentProperties [0:1]
AttachmentState:String [0:1]
IsEncrypted:Boolean [0:1]
IsPinned:Boolean [0:1]
IsRead:Boolean [0:1]
IsTrusted:Boolean [0:1]
LastActionTaken:String [0:1]
LastActionTime:DateTime [0:1]
LastActionType:String [0:1]
Priority:String [0:1]
SendStatus:String [0:1]
Size:Int64 [0:1]
Subject:String [0:1]
TimeReceived:DateTime [0:1]
TimeSent:DateTime [0:1]
Type:String [0:1]
AttachmentMessage:MessageData:NestedElement [0:1]
AttachmentParticipants:ParticipantsData [0:1]
AttachmentSavedFrom:SavedFromData:NestedElement [0:1]
AttachmentSource:AttachmentSourceData:NestedElement [0:1]
216
217
218
219
212
213
Message.AttachmentMessage
Message Schema
ContentLocation:String [0:1]
DeferredDeliveryDate:DateTime [0:1]
DeleteAfterSubmit:Boolean [1:1]
DeliveryReceiptRequested:Boolean [1:1]
DownloadState: [0:1]
ExpiryDate:DateTime [0:1]
Importance:Int16 [0:1]
IsEncrypted:Boolean [0:1]
IsRead:Boolean [0:1]
IsSigned:Boolen [0:1]
LastActionTaken:String [0:1]
LastActionTime:DateTime [0:1]
LastActionType:String [0:1]
NormalizedSubject:String [0:1]
Preview:String [0:1]
PrimaryType:String [0:1]
Priority:Int16 [0:1]
ReadReceiptRequested:Boolean [0:1]
SendStatus:String [0:1]
Sensitivity:String [0:1]
Size:Int64 [0:1]
Subject:String [0:1]
SubjectPrefix:String [0:1]
TimeDownloaded:DateTime [0:1]
TimeReceived:DateTime [0:1]
TimeSent:DateTime [0:1]
AttachmentMessage:ClientAttachment
MessageContents:ContentsData: [0:*]
MessageOriginalDeliveryAccount:
OriginalDeliveryAccountData:
NestedElement [0:1]
MessageParticipants:Participants
Data:Participant [0:1]
MessageSentMessageFolder:
SentMessageFolderData: [0:1]
210
211
Base Item Schema
ItemID:GUID [1:1]
Created:DateTime [0:1]
DisplayName:String [0:1]
224
225
Content Properties Schema
ContentBase:String [0:1]
ContentDescription:String [0:1]
ContentID:String [0:1]
ContentType:String [0:1]
ContentTypeParameters:String [0:1]
IsMacBinary:Boolean [0:1]
MimeURL:String [0:1]
SuggestedFilename:String [0:1]

Fig. 2A

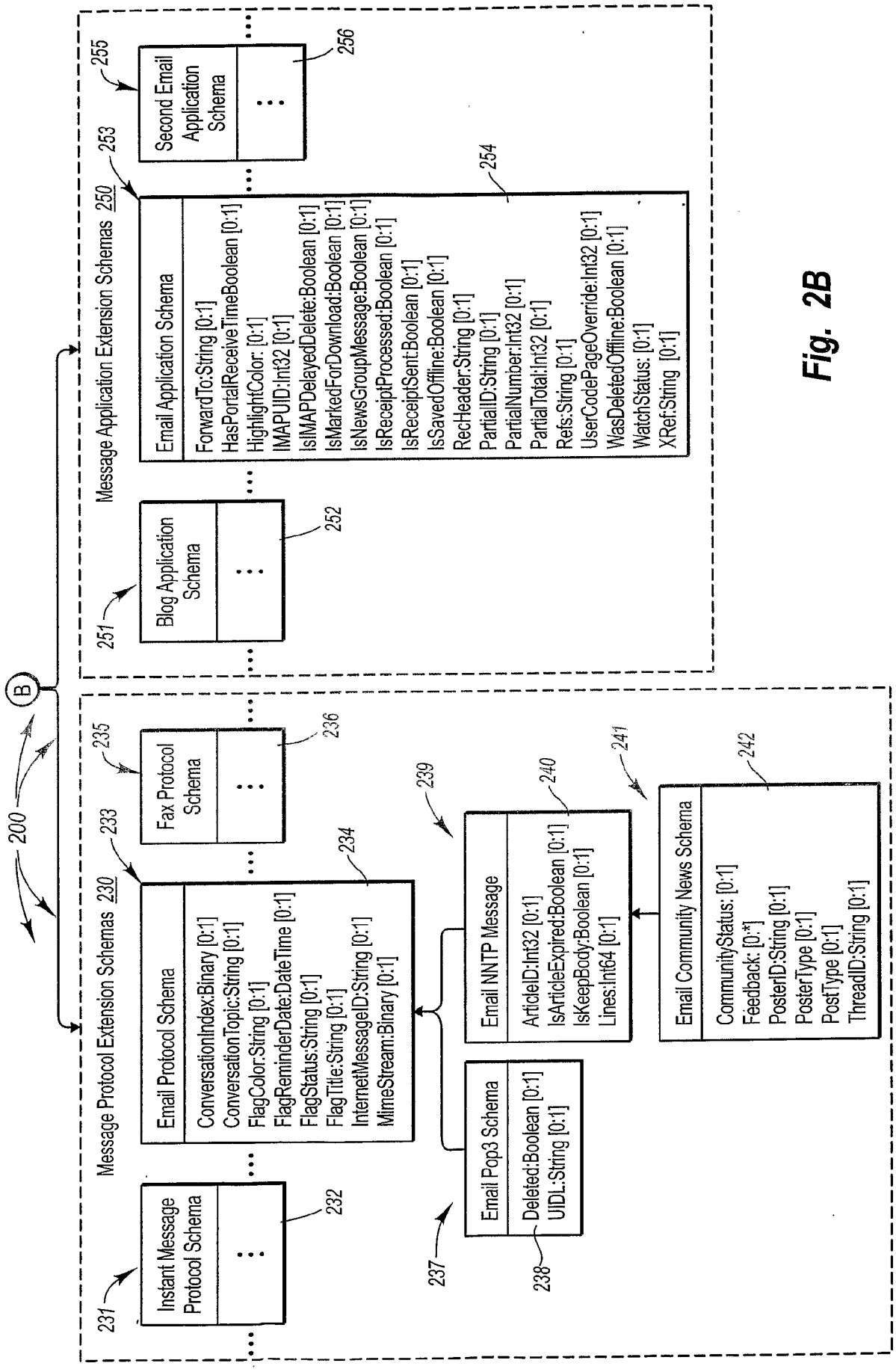

200
B
Message Protocol Extension Schemas 230
Instant Message Protocol Schema
231
232
Email Protocol Schema
ConversationIndex:Binary [0:1]
ConversationTopic:String [0:1]
FlagColor:String [0:1]
FlagReminderDate:DateTime [0:1]
FlagStatus:String [0:1]
FlagTitle:String [0:1]
InternetMessageID:String [0:1]
MimeStream:Binary [0:1]
233
234
Fax Protocol Schema
235
236
Email Pop3 Schema
Deleted:Boolean [0:1]
UIDL:String [0:1]
237
238
Email NNTP Message
ArticleID:Int32 [0:1]
IsArticleExpired:Boolean [0:1]
IsKeepBody:Boolean [0:1]
Lines:Int64 [0:1]
239
240
241
Email Community News Schema
CommunityStatus: [0:1]
Feedback: [0:*]
PosterID:String [0:1]
PosterType [0:1]
PostType [0:1]
ThreadID:String [0:1]
242
Message Application Extension Schemas 250
Blog Application Schema
251
252
Email Application Schema
ForwardTo:String [0:1]
HasPortalReceiveTimeBoolean [0:1]
HighlightColor: [0:1]
IMAPUID:Int32 [0:1]
IsIMAPDelayedDelete:Boolean [0:1]
IsMarkedForDownload:Boolean [0:1]
IsNewsGroupMessage:Boolean [0:1]
IsReceiptProcessed:Boolean [0:1]
IsReceiptSent:Boolean [0:1]
IsSavedOffline:Boolean [0:1]
RecHeader:String [0:1]
PartialID:String [0:1]
PartialNumber:Int32 [0:1]
PartialTotal:Int32 [0:1]
Refs:String [0:1]
UserCodePageOverride:Int32 [0:1]
WasDeletedOffline:Boolean [0:1]
WatchStatus: [0:1]
XRef:String [0:1]
253
254
Second Email Application Schema
255
256

Fig. 2B

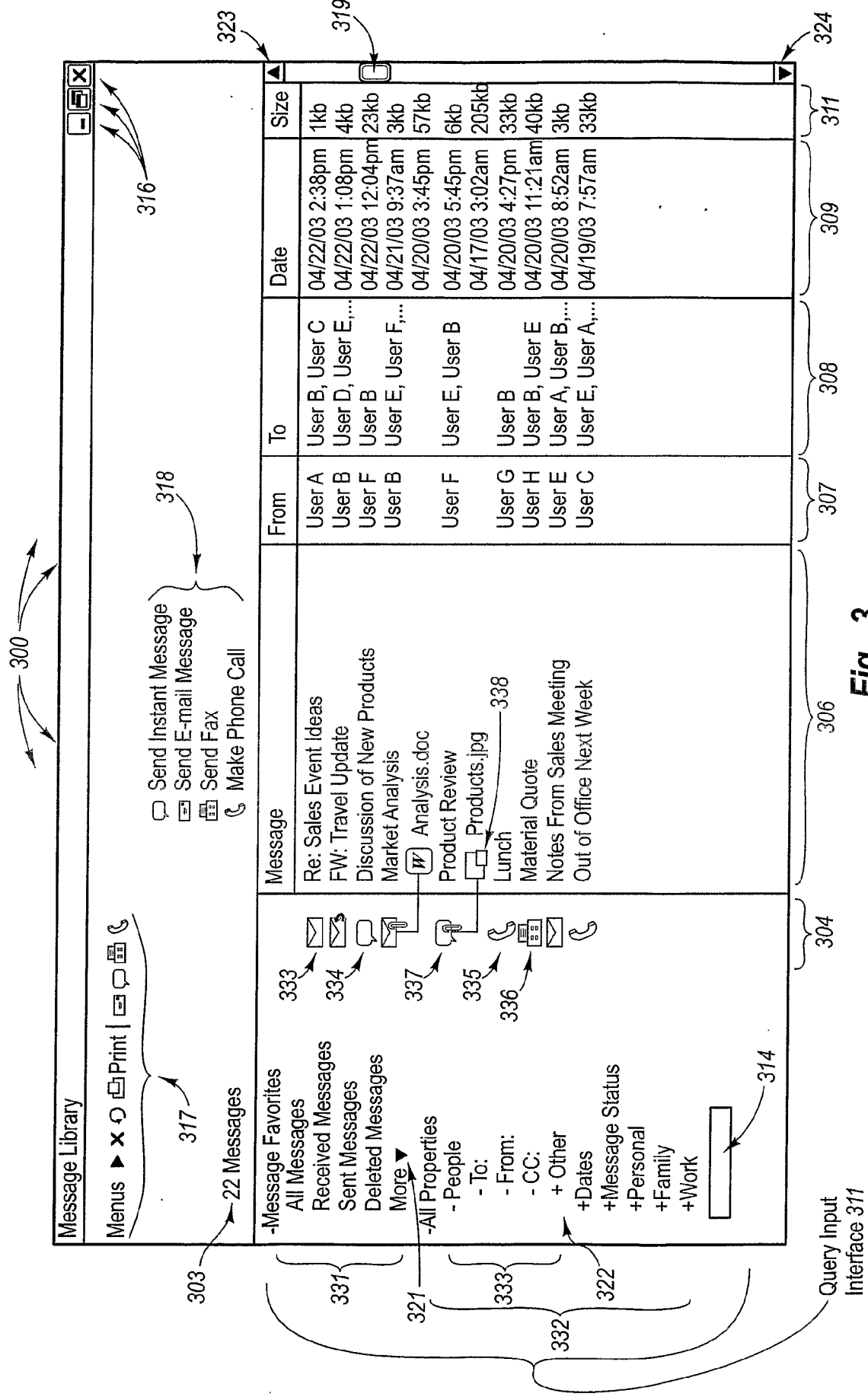

Message Library
Menus
Print
22 Messages
Send Instant Message
Send E-mail Message
Send Fax
Make Phone Call
Message Favorites
All Messages
Received Messages
Sent Messages
Deleted Messages
More
All Properties
People
To:
From:
CC:
Other
Dates
Message Status
Personal
Family
Work
Message
From
To
Date
Size
Re: Sales Event Ideas
FW: Travel Update
Discussion of New Products
Market Analysis
Analysis.doc
Product Review
Products.jpg
Lunch
Material Quote
Notes From Sales Meeting
Out of Office Next Week
User A
User B
User F
User B
User F
User G
User H
User E
User C
User B, User C
User D, User E,...
User B
User E, User F,...
User E, User B
User B
User B, User E
User A, User B,...
User E, User A,...
04/22/03 2:38pm
04/22/03 1:08pm
04/22/03 12:04pm
04/21/03 9:37am
04/20/03 3:45pm
04/20/03 5:45pm
04/17/03 3:02am
04/20/03 4:27pm
04/20/03 11:21am
04/20/03 8:52am
04/19/03 7:57am
1kb
4kb
23kb
3kb
57kb
6kb
205kb
33kb
40kb
3kb
33kb
300
303
304
306
307
308
309
311
314
316
317
318
319
321
322
323
324
331
332
333
334
335
336
337
338
Query Input Interface 311

Fig. 3

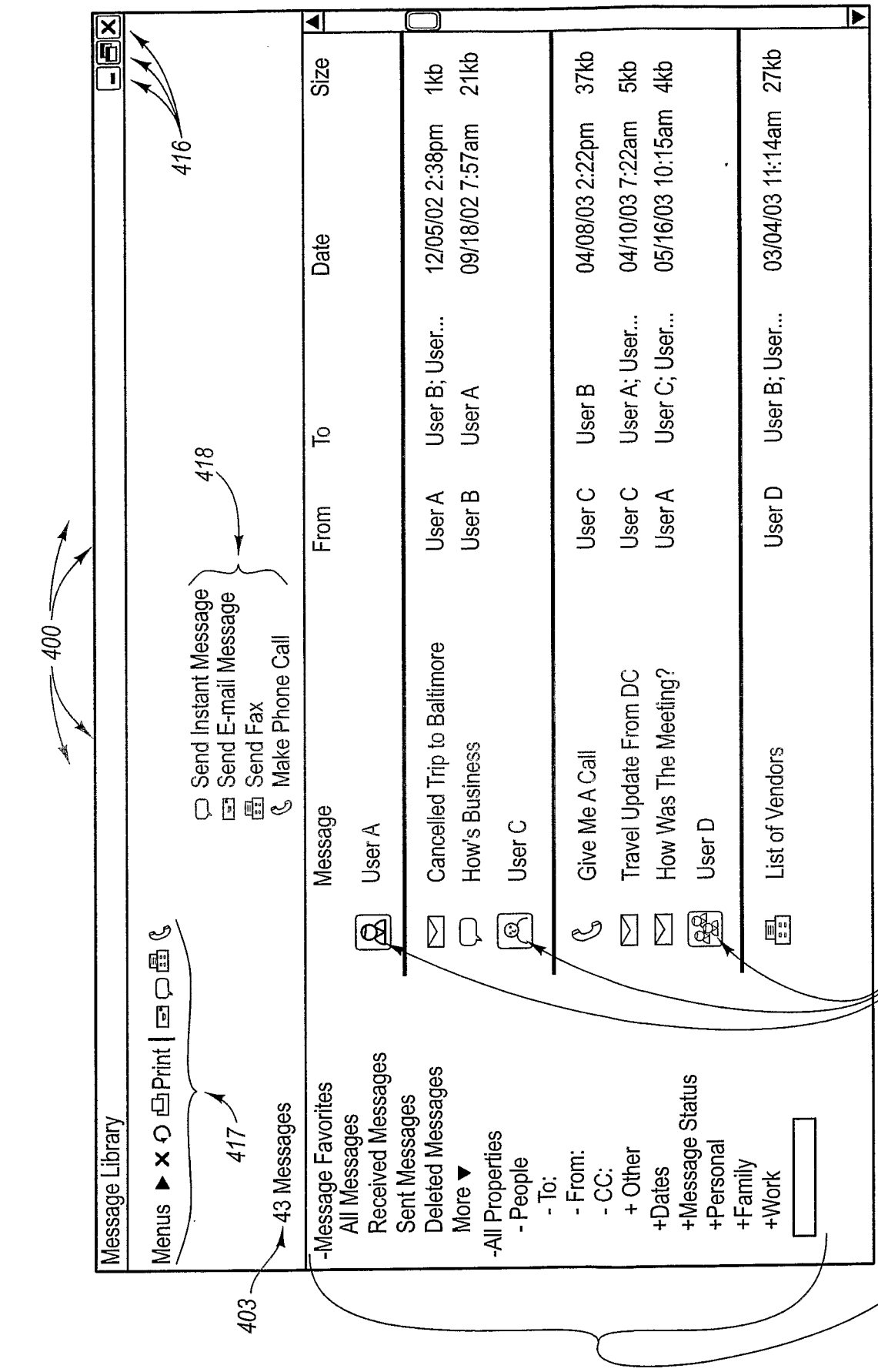

Message Library
Menus
Print
43 Messages
Send Instant Message
Send E-mail Message
Send Fax
Make Phone Call
Message
From
To
Date
Size
-Message Favorites
All Messages
Received Messages
Sent Messages
Deleted Messages
More
-All Properties
- People
- To:
- From:
- CC:
+ Other
+Dates
+Message Status
+Personal
+Family
+Work
User A
Cancelled Trip to Baltimore
User A
User B; User...
12/05/02 2:38pm
1kb
How's Business
User B
User A
09/18/02 7:57am
21kb
User C
Give Me A Call
User C
User B
04/08/03 2:22pm
37kb
Travel Update From DC
User C
User A; User...
04/10/03 7:22am
5kb
How Was The Meeting?
User A
User C; User...
05/16/03 10:15am
4kb
User D
List of Vendors
User D
User B; User...
03/04/03 11:14am
27kb
400
403
416
417
418
User Indicators 431
Query Input Interface 411

Fig. 4

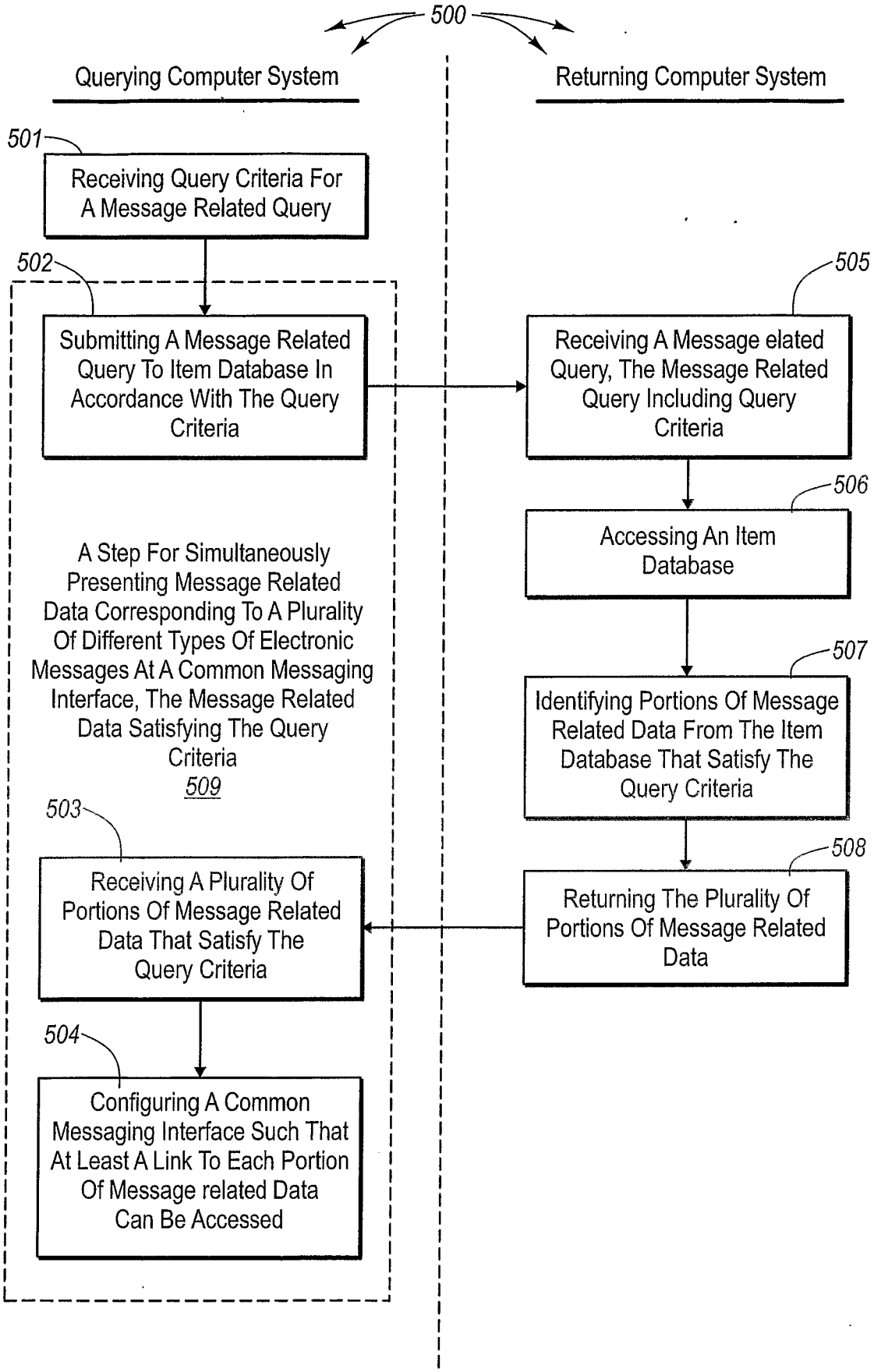
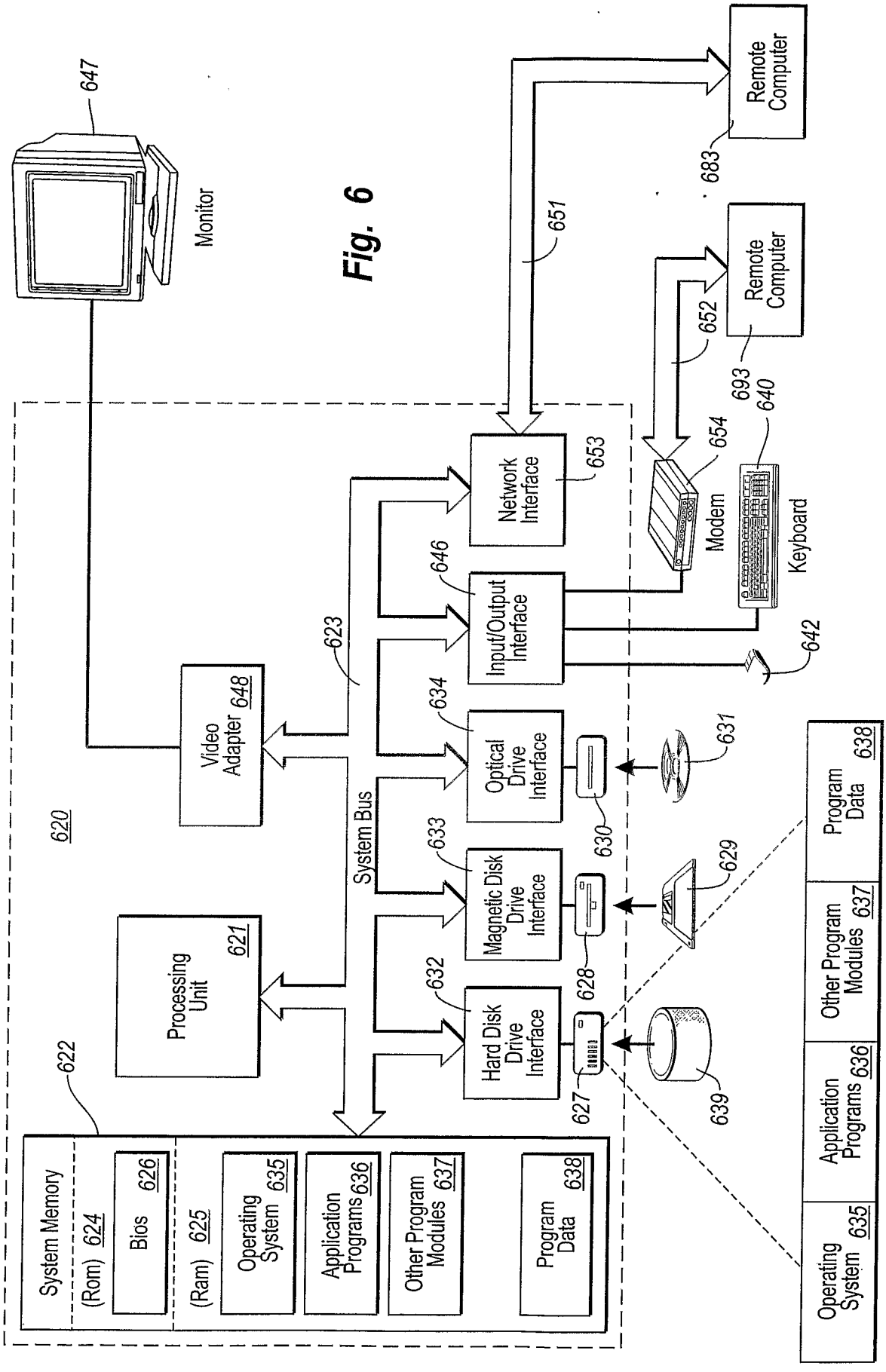

500
Querying Computer System
Returning Computer System
501
Receiving Query Criteria For A Message Related Query
502
Submitting A Message Related Query To Item Database In Accordance With The Query Criteria
505
Receiving A Message elated Query, The Message Related Query Including Query Criteria
506
Accessing An Item Database
507
Identifying Portions Of Message Related Data From The Item Database That Satisfy The Query Criteria
508
Returning The Plurality Of Portions Of Message Related Data
A Step For Simultaneously Presenting Message Related Data Corresponding To A Plurality Of Different Types Of Electronic Messages At A Common Messaging Interface, The Message Related Data Satisfying The Query Criteria
509
503
Receiving A Plurality Of Portions Of Message Related Data That Satisfy The Query Criteria
504
Configuring A Common Messaging Interface Such That At Least A Link To Each Portion Of Message related Data Can Be Accessed

Fig. 5

Fig. 6


647
Monitor
Remote Computer
683
651
652
Remote Computer
693
640
654
Modem
Keyboard
642
653
Network Interface
646
Input/Output Interface
623
634
Optical Drive Interface
631
630
633
Magnetic Disk Drive Interface
629
628
632
Hard Disk Drive Interface
627
639
Video Adapter 648
620
System Bus
Processing Unit 621
622
System Memory
(Rom) 624
Bios 626
(Ram) 625
Operating System 635
Application Programs 636
Other Program Modules 637
Program Data 638
Program Data 638
Other Program Modules 637
Application Programs 636
Operating System 635