UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO.

: 8,359,016 B2

Page 1 of 1

APPLICATION NO.

: 12/950933

DATED

: January 22, 2013

INVENTOR(S)

: Jesse Wagner Lindeman et al.

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title Page, Item (75) Inventors:

should read

-- (75) Inventors:

Jesse Wagner Lindeman, San Jose, CA

(US); Thomas Edward Wagner, San Jose, CA (US); Suresh Kumar Batchu, Milpitas, CA (US); Ojas Udayan Rege, Palo Alto, CA (US); Ajay Kumar Mishra, San Jose, CA (US); Robert Bates Tinker,

San Francisco, CA (US) --.

Signed and Sealed this Twenty-eighth Day of July, 2015

Michelle K. Lee

Michelle K. Lee

Director of the United States Patent and Trademark Office

UNITED STATES PATENT AND TRADEMARK OFFICE



Commissioner for Patents United States Patent and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 www.uspto.gov

Patent No. 8359016

Issued Date: 22 January, 2013

Appl. No: 12/950,933

Filed.: 19 November 2010

PART (A) RESPONSE FOR CERTIFICATES OF CORRECTION

This is a decision	on the Certificate of	of Correction r	equest filed .	
_	suance of Certificat ns of 37 CFR 1.322		n for the above-iden is hereby:	tified correction(s)
(Check one) Approved	☐ Approved i	n Part	☐ Denied	
Comments:				
PAR	T (B) PETITION	N UNDER 37	CFR 1.324 OR 37 (CFR 1.48
This is a decision 1.324.	on the petition filed	d 21 June 2013	to correct inventors	nip under 37 CFR
that the patent has		e request unde	r 37 CFR 1.48 has be	. In view of the fac een treated as a
The petition is her	eby: 🛛 Gra	nted	☐ Dismiss	ed
	is being forwarded only the actual inv			nch for issuance of a
/LESTER KINCAII Supervisory Patent Technology Cente Phone: (571)272-79	Examiner, Art Unit 2 er 2600	2646		

Certificates of Correction Branch email: CustomerServiceCoC@uspto.gov CoC Central Phone Number: (703) 756-1814

Patent No.:	8,359,016	Issue Date:	January 22, 2013	
Application No.:	12/950,933	Filed:	November 19, 2010	
Inventor:	LINDEMAN et al.	Docket No.:	MOIRP007	
Title:	MANAGEMENT OF MOBILE APPLICATIONS			

REQUEST FOR STATUS OF THE REQUEST FOR CORRECTION OF INVENTORSHIP UNDER RULE 37 CFR 1.324

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Applicant hereby requests the status of the Request for Correction of Inventorship Under Rule 37 CFR 1.324, for the above-referenced patent application. The request was filed June 21, 2013, and no response has been received as of this date.

Respectfully submitted,

/william j. james/

William J. James Reg. No. 40,661

VAN PELT, YI & JAMES LLP 10050 N. Foothill Blvd. Suite 200 Cupertino, CA 95014 (408) 973-2585

Electronic Acknowledgement Receipt		
EFS ID:	22682920	
Application Number:	12950933	
International Application Number:		
Confirmation Number:	8729	
Title of Invention:	MANAGEMENT OF MOBILE APPLICATIONS	
First Named Inventor/Applicant Name:	Jesse Wagner Lindeman	
Customer Number:	21912	
Filer:	William James/Elaine Nguyen	
Filer Authorized By:	William James	
Attorney Docket Number:	MOIRP007	
Receipt Date:	25-JUN-2015	
Filing Date:	19-NOV-2010	
Time Stamp:	12:49:23	
Application Type:	Utility under 35 USC 111(a)	
Payment information:		

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	MOIRP007_Request_for_Status.	65376	no	1
·		pdf	8b2ca497db6a896ed914146a9414fb9cf36 7bde5		

Warnings:

Information:	0004

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Patent No.:	8,359,016	Issue Date:	January 22, 2013	
Application No.:	12/950,933	Filed:	November 19, 2010	
Inventor:	LINDEMAN et al.	Docket No.:	MOIRP007	
Title:	MANAGEMENT OF MOBILE APPLICATIONS			

REQUEST FOR CORRECTION OF INVENTORSHIP UNDER RULE 37 CFR 1.324

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Enclosed herewith are the executed Statements from Jesse Wagner Lindeman, Thomas Edward Wagner, Suresh Kumar Batchu, Ojas Udayan Rege, Ajay Kumar Mishra, Robert Bates Tinker; and Assignee's Consent to Change Inventorship.

Applicant requests under 37 CFR. 1.324 that the Director issue a certificate correcting the inventorship of the above-captioned patent to name only Jesse Wagner Lindeman, Thomas Edward Wagner, Suresh Kumar Batchu, Ojas Udayan Rege, Ajay Kumar Mishra, and Robert Bates Tinker as inventors.

Please charge the required fee set forth in 37 CFR 1.20(b), and any other fees that may be due, to our Deposit Account No. 50-0685 (Atty. Dkt. No. MOIRP007).

Respectfully submitted,

/william j. james/

William J. James Reg. No. 40,661

VAN PELT, YI & JAMES LLP 10050 N. Foothill Blvd. Suite 200 Cupertino, CA 95014 (408) 973-2585

Inventor:	LINDEMAN et al.	Examiner:	Phuoc Huu Doan
Application No.:	12/950,933	Art Unit:	2646
Filed:	November 19, 2010	Docket No.:	MOIRP007
Title:	MANAGEMENT OF MOBILE APPLICATIONS		

STATEMENT OF JESSE WAGNER LINDEMAN

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

I agree with or have no disagreement in regard to the requested change in inventorship with respect to the United States Patent No. 8,359,016 to name only Jesse Wagner Lindeman, Thomas Edward Wagner, Suresh Kumar Batchu, Ojas Udayan Rege, Ajay Kumar Mishra, and Robert Bates Tinker as inventors.

Respectfully submitted,

Jesse Wagner Lindeman

Date signed:

Inventor:	LINDEMAN et al.	Examiner:	Phnoc Huu Doan
Application No.:	12/950,933	Art Unit:	2646
Filed:	November 19, 2010	Docket No.:	MOIRP007
Title:	MANAGEMENT OF MOBI	LE APPLICATIONS	1

STATEMENT OF THOMAS EDWARD WAGNER

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

I agree with or have no disagreement in regard to the requested change in inventorship with respect to the United States Patent No. 8,359,016 to name only Jesse Wagner Lindeman, Thomas Edward Wagner, Suresh Kumar Batchu, Ojas Udayan Rege, Ajay Kumar Mishra, and Robert Bates Tinker as inventors.

Respectfully submitted,

Thomas Edward Wagner

Date signed:

Inventor:	LINDEMAN et al.	Examiner:	Phuoc Huu Doan
Application No.:	12/950,933	Art Unit:	2646
Filed:	November 19, 2010	Docket No.:	MOIRP007
Title:	MANAGEMENT OF MOBILE	APPLICATIONS	

STATEMENT OF SURESH KUMAR BATCHU

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

I agree with or have no disagreement in regard to the requested change in inventorship with respect to the United States Patent No. 8,359,016 to name only Jesse Wagner Lindeman, Thomas Edward Wagner, Suresh Kumar Batchu, Ojas Udayan Rege, Ajay Kumar Mishra, and Robert Bates Tinker as inventors.

Respectfully submitted,

Suresh Kumar Batchu

Inventor:	LINDEMAN et al.	Examiner:	Phuoc Hun Doan	
Application No.:	12/950,933	Art Unit:	2646	
Filed:	November 19, 2010	Docket No.:	MOIRP007	
Title:	MANAGEMENT OF MOBILE APPLICATIONS			

STATEMENT OF OJAS UDAYAN REGE

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

I agree with or have no disagreement in regard to the requested change in inventorship with respect to the United States Patent No. 8,359,016 to name only Jesse Wagner Lindeman, Thomas Edward Wagner, Suresh Kumar Batchu, Ojas Udayan Rege, Ajay Kumar Mishra, and Robert Bates Tinker as inventors.

Respectfully submitted,

Ojas Udayan Rege

Date signed:

2128113

Inventor:	LINDEMAN et al.	Examiner:	Phuoe Huu Doan
Application No.:	12/950,933	Art Unit:	2646
Filed:	November 19, 2010	Docket No.:	MOIRP007
Title:	MANAGEMENT OF MOBIL	E APPLICATIONS	баспания в по 1979 година в подавания в подавания в подавания в подавания в подавания в подавания в подавания В

STATEMENT OF AJAY KUMAR MISHRA

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

I agree with or have no disagreement in regard to the requested change in inventorship with respect to the United States Patent No. 8,359,016 to name only Jesse Wagner Lindeman, Thomas Edward Wagner, Suresh Kumar Batchu, Ojas Udayan Rege, Ajay Kumar Mishra, and Robert Bates Tinker as inventors.

Respectfully submitted,

Ajay Runar Mishra

Date signed: May 28, 2013

Inventor:	LINDEMAN et al.	Examiner:	Phuoc Huu Doan			
Application No.:	12/950,933	Art Unit:	2646			
Filed:	November 19, 2010	Docket No.:	MOIRP007			
Title:	MANAGEMENT OF MOBILE APPLICATIONS					

STATEMENT OF ROBERT BATES TINKER

Commissioner for Patents P. O. Box 1450 Alexandria, VA 22313-1450

Sir:

I agree with or have no disagreement in regard to the requested change in inventorship with respect to the United States Patent No. 8,359,016 to name only Jesse Wagner Lindeman, Thomas Edward Wagner, Suresh Kumar Batchu, Ojas Udayan Rege, Ajay Kumar Mishra, and Robert Bates Tinker as inventors.

Respectfully submitted,

Robert Bates Tinker

Date signed: 15/28/13

Inventor:	LINDEMAN et al.	Examiner:	Phuoc Huu Doan			
Application No.:	12/950,933	Art Unit:	2646			
Filed:	November 19, 2010	MOIRP007				
Title:	MANAGEMENT OF MOBILE APPLICATIONS					

ASSIGNEE'S CONSENT TO CHANGE OF INVENTORSHIP

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

MOBILE IRON, INC., as assignee of the above-captioned application, hereby assents to the correction of inventorship request filed concurrently herewith, whereby only Jesse Wagner Lindeman, Thomas Edward Wagner, Suresh Kumar Batchu, Ojas Udayan Rege, Ajay Kumar Mishra, and Robert Bates Tinker will be named as inventors.

Respectfully submitted,

Name:

Date:

Electronic Patent Application Fee Transmittal						
Application Number:		950933	: IIalisiii	- Can		
Filing Date:		·Nov-2010				
Timig Date.	15					
Title of Invention:	MANAGEMENT OF MOBILE APPLICATIONS					
First Named Inventor/Applicant Name:	Jesse Wagner Lindeman					
Filer:	William James/Elaine Nguyen					
Attorney Docket Number:	Attorney Docket Number: MOIRP007					
Filed as Large Entity						
Utility under 35 USC 111(a) Filing Fees						
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)	
Basic Filing:						
Pages:						
Claims:						
Miscellaneous-Filing:						
Petition:						
Patent-Appeals-and-Interference:						
Post-Allowance-and-Post-Issuance:						
Processing Fee Correcting Inventorship		1816	1	130	130	
Extension-of-Time:		0014				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
	Tot	al in USD	(\$)	130

Electronic Ack	knowledgement Receipt
EFS ID:	16113816
Application Number:	12950933
International Application Number:	
Confirmation Number:	8729
Title of Invention:	MANAGEMENT OF MOBILE APPLICATIONS
First Named Inventor/Applicant Name:	Jesse Wagner Lindeman
Customer Number:	21912
Filer:	William James/Elaine Nguyen
Filer Authorized By:	William James
Attorney Docket Number:	MOIRP007
Receipt Date:	21-JUN-2013
Filing Date:	19-NOV-2010
Time Stamp:	14:22:23
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$130
RAM confirmation Number	11766
Deposit Account	500685
Authorized User	

 $The \ Director \ of the \ USPTO \ is \ hereby \ authorized \ to \ charge \ indicated \ fees \ and \ credit \ any \ overpayment \ as \ follows:$

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section ዐርሀገይ (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	MOIRP007_Request_for_Correction_of_Inventorship.pdf	65698 d1326dcac48600e6e8916c0e3aab199074d	no	1
Warnings:			37eb4		
Information:					
2	Miscellaneous Incoming Letter	MOIRP007_Executed_Stateme nt_of_Jesse_Wagner_Lindema	321543	no	1
		n.pdf	ad997f209247074116f06fb940d90f6e20f55 581		
Warnings:					
Information:					
3	Miscellaneous Incoming Letter	MOIRP007_Executed_Stateme nt_of_Thomas_Edward_Wagne	328074	no	1
		r.pdf	8b56b992c42933a1e83719243ab4f868c2c c5f26		
Warnings:					
Information:					
4	Miscellaneous Incoming Letter	MOIRP007_Executed_Stateme nt_of_Suresh_Kumar_Batchu.	311829	no	1
	5	pdf	f56b5eff7111c44c5eb77afd836397f98228e 192		
Warnings:					
Information:					
5	Miscellaneous Incoming Letter	MOIRP007_Executed_Stateme	321480	no	1
	This column court in continuity action	nt_of_Ojas_Udayan_Rege.pdf	dc9360df231f536e50b3e88404f7ed957d9e 313a	0	
Warnings:					
Information:					
6	Miscellaneous Incoming Letter	MOIRP007_Executed_Stateme	317091	no	1
	5	nt_of_Ajay_Kumar_Mishra.pdf	cef76e611aa12ec513b87ec4a8fdf993409c eab4		
Warnings:					
Information:					
7	Miscellaneous Incoming Letter	MOIRP007_Executed_Stateme	317346	no	1
,	nt_of_Robert_		t_Bates_Tinker.pdf 75b1c72ddc4eb150bc6e3e0b6ed4c64a53 49d5a		'
Warnings:					
Information:					
8	Consent of Assignee accompanying the	MOIRP007_Executed_Assignee s_Consent_to_Change_Invento	366170	no	1
	declaration	rship.pdf	9e70b900c475d3aae2342acb660d285677f 55dac		

Warnings:					
Information:					
9	Fee Worksheet (SB06)	fee-info.pdf	30124		,
	ree worksheet (3500)	ree imo.pui	36df58a320480cd70403f576060c82e88fe0 b72c	no	_
Warnings:					
Information:	•				
		Total Files Size (in bytes):	23	79355	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

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New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

r.O. DOX 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/950,933	01/22/2013	8359016	MOIRP007	8729

21912

7590

12/29/2012

VAN PELT, YI & JAMES LLP 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment is 84 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

Jesse Wagner Lindeman, San Jose, CA; Thomas Edward Wagner, San Jose, CA;

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit <u>SelectUSA.gov</u>.

Doc code: IDS Doc description: Information Disclosure Statement (IDS) Filed PTO/SB/08a (01-10)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99) Application Number 12950933 Filing Date 2009-04-09 First Named Inventor Jesse Wagner Lindeman Art Unit 2617 Examiner Name Phuoc Huu Doan Attorney Docket Number MOIRP007

					U.S.I	PATENTS			Remove				
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	lssue Date		Name of Patentee or Applicant of cited Document		Relev	s,Columns,Lines where vant Passages or Relevant es Appear				
	1	6151606		2000-11	-21	Daniel J. Meno	lez						
	2	7702322		2010-04	-20	MAURYA et al							
	3	7970386		2011-06	-28	BHAT et al.		BHAT et al.		BHAT et al.			
	4	8012219		2011-09	-06	MENDEZ et al.							
If you wis	h to ac	ld additional U.S. Pater	nt citatio	n informa	ation pl	ease click the	Add button.	•	Add				
			U.S.P	ATENT	APPLI	CATION PUBI	LICATIONS	ı	Remove				
Examiner Initial*	Cite I	No Publication Number	Kind Code ¹	Publica Date	tion	Name of Pate of cited Docu	entee or Applicant ment	Relev	s,Columns,Lines where vant Passages or Relevant es Appear				
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				FOREIG	N PAT	ENT DOCUM	ENTS		Remove				
Examiner Initial*	Cite No	Foreign Document Number ³	Country Code ²		Kind Code ⁴	Publication Date	Name of Patented Applicant of cited Document	I	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear				

INFORMATION	DISCLOSURE
STATEMENT B	Y APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		12950933
Filing Date		2009-04-09
First Named Inventor	Jesse	Wagner Lindeman
Art Unit		2617
Examiner Name	Phuod	c Huu Doan
Attorney Docket Number		MOIRP007

	1							
If you wisl	n to ac	dd additional Foreign P	atent Document	citation	information pl	ease click the Add butto	n Add	
			NON-PATEN	IT LITE	RATURE DO	CUMENTS	Remove	
Examiner Initials*	Cite No		nal, serial, sympo	osium,	catalog, etc), c	the article (when approp late, pages(s), volume-i		T 5
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If you wisl	n to ac	dd additional non-paten	t literature docur	nent cit	ation informati	on please click the Add	button Add	
			EX	AMINE	R SIGNATUR	E		
Examiner	Signa	ture /Ph	uoc Doan/			Date Considered	12/11/2012	
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								
¹ See Kind Codes of USPTO Patent Documents at <u>www.USPTO.GOV</u> or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.								

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		12950933
Filing Date		2009-04-09
First Named Inventor Jesse		Wagner Lindeman
Art Unit		2617
Examiner Name Phuo		c Huu Doan
Attorney Docket Number		MOIRP007

CERTIFICATION STATEMENT					
Plea	ase see 37 CFR 1	.97 and 1.98 to make the appropri	ate selection(s):		
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).				
OR	ł				
X	foreign patent of after making rea any individual d	ffice in a counterpart foreign appli sonable inquiry, no item of informa	rmation disclosure statement was ication, and, to the knowledge of thation contained in the information die than three months prior to the fi	ne person signing the certification isclosure statement was known to	
	See attached ce	rtification statement.			
×	The fee set forth	in 37 CFR 1.17 (p) has been subn	nitted herewith.		
	A certification sta	atement is not submitted herewith.			
SIGNATURE A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.					
Sigr	nature	/william j. james/	Date (YYYY-MM-DD)	2012-11-16	
Nan	ne/Print	William J. James	Registration Number	40661	
			·		

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.
- A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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APPLICATION NO. FILING DATE FIRST NAMED INVENTOR		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
12/950,933	11/19/2010	Jesse Wagner Lindeman	MOIRP007	8729	
	7590 12/17/201 [& JAMES LLP	EXAMINER			
	ΓHILL BLVD #200		DOAN, PHUOC HUU		
COPERTINO,	CA 93014		ART UNIT	PAPER NUMBER	
			2646		
			NOTIFICATION DATE	DELIVERY MODE	
			12/17/2012	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptocorrespondence@ip-patent.com

Supplemental			
Notice of Allowability			

Application No.		Applicant(s)		
	12/950,933	LINDEMAN ET AL.		
	Examiner	Art Unit		
	PHUOC DOAN	2646		

	PHUOC DOAN	2646			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.					
1. This communication is responsive to <u>12/10/2012</u> .					
2. An election was made by the applicant in response to a restriction requirement set forth during the interview on; the restriction requirement and election have been incorporated into this action.					
 The allowed claim(s) is/are <u>1-20</u>. As a result of the allowed of Highway program at a participating intellectual property offic http://www.uspto.gov/patents/init_events/pph/index.jsp or se 	ce for the corresponding application.	For more information			
 4. ☐ Acknowledgment is made of a claim for foreign priority under a) ☐ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have 					
2. Certified copies of the priority documents have	been received in Application No				
3. Copies of the certified copies of the priority doc	cuments have been received in this r	national stage applica	tion from the		
International Bureau (PCT Rule 17.2(a)).					
* Certified copies not received:					
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		complying with the rec	quirements		
5. CORRECTED DRAWINGS (as "replacement sheets") must	be submitted.				
including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or in the O	ffice action of			
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the			back) of		
 DEPOSIT OF and/or INFORMATION about the deposit of B attached Examiner's comment regarding REQUIREMENT FC 					
Attachment(s) 1. ☐ Notice of References Cited (PTO-892) 2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material 4. ☐ Interview Summary (PTO-413), Paper No./Mail Date	5. ☐ Examiner's Amendn 6. ☐ Examiner's Stateme 7. ☐ Other		wance		
/PHUOC DOAN/					
Primary Examiner, Art Unit 2646					

U.S. Patent and Trademark Office PTOL-37 (Rev. 09-12)

Notice of Allowability

Part of Paper No./Mail Date 20121211

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	APPLICATION NO. FILING DATE FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/950,933	11/19/2010	Jesse Wagner Lindeman	MOIRP007	8729
	7590 11/29/201 [& JAMES LLP	EXAMINER		
10050 N. FOOT	ΓHILL BLVD #200	DOAN, PHUOC HUU		
CUPERTINO, 0	CA 93014		ART UNIT	PAPER NUMBER
			2646	
			NOTIFICATION DATE	DELIVERY MODE
			11/29/2012	ELECTRONIC

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Supplemental
Notice of Allowability

Application No.	Applicant(s)
12/950,933	LINDEMAN ET AL.
Examiner	Art Unit
PHUOC DOAN	2646

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The MAILING DATE of this communication appears on the cover sheet with the correspondence address Il claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included erewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS IOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative f the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.				
. 🛛 This communication is responsive to 11/16/2012.				
2. An election was made by the applicant in response to a restriction requirement set forth during the interview on; the restriction requirement and election have been incorporated into this action.				
 The allowed claim(s) is/are <u>1-20</u>. As a result of the allowed of Highway program at a participating intellectual property offic http://www.uspto.gov/patents/init_events/pph/index.jsp or se 	ce for the corresponding application.	For more information		
 4. ☐ Acknowledgment is made of a claim for foreign priority unde a) ☐ All b) ☐ Some* c) ☐ None of the: 	• ,,,,,			
1. Certified copies of the priority documents have				
2. Certified copies of the priority documents have	• • • • • • • • • • • • • • • • • • • •			
3. Copies of the certified copies of the priority doc	cuments have been received in this i	national stage applica	tion from the	
International Bureau (PCT Rule 17.2(a)).				
* Certified copies not received:				
Applicant has THREE MONTHS FROM THE "MAILING DATE" on noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		complying with the red	quirements	
i. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.				
including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date				
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the	.84(c)) should be written on the drawir he header according to 37 CFR 1.121(o	ngs in the front (not the d).	back) of	
 DEPOSIT OF and/or INFORMATION about the deposit of B attached Examiner's comment regarding REQUIREMENT FC 				
Attachment(s) 1. ☐ Notice of References Cited (PTO-892)	5.	nent/Comment		
2. Information Disclosure Statements (PTO/SB/08),	6. 🗌 Examiner's Stateme	nt of Reasons for Allo	wance	
Paper No./Mail Date 3.	7. 🗌 Other			
4. Interview Summary (PTO-413), Paper No./Mail Date				
/PHUOC DOAN/				
Primary Examiner, Art Unit 2646				

U.S. Patent and Trademark Office PTOL-37 (Rev. 09-12)

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Doc code: IDS Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)
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	Application Number		12950933
	Filing Date		2009-04-09
INFORMATION DISCLOSURE	First Named Inventor	Jesse	Wagner Lindeman
(Not for submission under 37 CFR 1.99)	Art Unit		2617
(Not for Submission under or of K 1.00)	Examiner Name	Phuo	: Huu Doan
	Attorney Docket Number		MOIRP007

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	1	6151606		2000-11	-21	Daniel J. Mend	dez		
	2	7702322		2010-04	-20	MAURYA et al			
	3	7970386		2011-06	i-28	BHAT et al.			
	4	8012219		2011-09)-06	MENDEZ et al			
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		12950933		
Filing Date		2009-04-09		
First Named Inventor	Jesse	Wagner Lindeman		
Art Unit		2617		
Examiner Name	Phuo	Phuoc Huu Doan		
Attorney Docket Number		MOIRP007		

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.									
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Examiner	Signa	ture	/Phuoc Doa	ın/		Date Considered	11/26/2012				
	*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.										
Standard ST 4 Kind of doo	¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.										

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		12950933	
Filing Date		2009-04-09	
First Named Inventor	Jesse	Wagner Lindeman	
Art Unit		2617	
Examiner Name	Phuoc Huu Doan		
Attorney Docket Number		MOIRP007	

	CERTIFICATION STATEMENT									
Plea	ase see 37 CFR	1.97 and 1.98 to make the appropriate selection	on(s):							
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).									
OF	₹									
×	That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).									
	See attached c	ertification statement.								
×	The fee set fort	h in 37 CFR 1.17 (p) has been submitted here	with.							
	A certification s	tatement is not submitted herewith.								
SIGNATURE A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.										
Sigi	nature	/william j. james/	Date (YYYY-MM-DD)	2012-11-16						
Nar	ne/Print	William J. James	Registration Number	40661						
			•							

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.
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- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PART B - FEE(S) TRANSMITTAL

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APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DO	CKET NO	CONFIRMATION NO.	
12/950,933	11/19/2010		Jesse Wagner Lindeman		079198.0		8729	
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"Fee Address" indi	ondence address (or Chai 3/122) attached. cation (or "Fee Address" 2 or more recent) attache	nge of Correspondence	(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to					
			THE PATENT (print or typ					
PLEASE NOTE: Unl recordation as set fortl	ess an assignee is identi n in 37 CFR 3.11. Comp	fied below, no assignee letion of this form is NO	data will appear on the part Γ a substitute for filing an a	tent. If an assigne issignment.	e is identified b	below, the docu	iment has been filed for	
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MOBILE IF	RON, INC.		Mountain Vie	w, CA				
Please check the appropri	ate assignee category or	categories (will not be pr	inted on the patent):	Individual 🔽 Co	rporation or oth	er private group	entity Government	
4a. The following fee(s) a Issue Fee Publication Fee (N Advance Order - #	o small entity discount p		4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) ☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _50-0685 (enclose an extra copy of this form).					
5. Change in Entity Stat	us (from status indicated	l above)						
**	s SMALL ENTITY statu		b. Applicant is no long					
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Authorized Signature	/william j. jame	es/		No Date	vember 16,	2012		
Typed or printed name	William J. Jai	mes		Registration N	o40,661			
an application. Confident submitting the completed	iality is governed by 35 l application form to the	U.S.C. 122 and 37 CFR USPTO. Time will vary	on is required to obtain or re 1.14. This collection is esti- depending upon the indivi- e Chief Information Office	mated to take 12 n idual case. Any coi	ninutes to compl mments on the a	ete, including (imount of time	gathering, preparing, and you require to complete	

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Doc code: IDS Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (01-10)

Approved for use through 07/31/2012. OMB 0651-0031

Mation Disclosure Statement (IDS) Filed

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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	Application Number		12950933	
	Filing Date		2009-04-09	
INFORMATION DISCLOSURE	First Named Inventor Jesse		sse Wagner Lindeman	
STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Art Unit		2617	
(Not for Submission under 67 of K 1.55)	Examiner Name Phuo		oc Huu Doan	
	Attorney Docket Number		MOIRP007	

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	2	7702322		2010-04	-20	MAURYA et al	MAURYA et al.		
	3	7970386		2011-06	-28	BHAT et al.			
	4	8012219		2011-09	-06	MENDEZ et al.			
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		12950933	
Filing Date		2009-04-09	
First Named Inventor Jesse		Wagner Lindeman	
Art Unit		2617	
Examiner Name	Phuoc Huu Doan		
Attorney Docket Number		MOIRP007	

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Examiner	Signa	ture				Date Considered					
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.											
¹ See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. ² Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). ³ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁴ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁵ Applicant is to place a check mark here if English language translation is attached.											

EFS Web 2.1.17 0034

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number		12950933	
Filing Date		2009-04-09	
First Named Inventor	Jesse	Wagner Lindeman	
Art Unit		2617	
Examiner Name	Phuoc Huu Doan		
Attorney Docket Number		MOIRP007	

Plea	ase see 37 CFR 1	.97 and 1.98 to make the appropriate selection	on(s):							
	That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).									
OF	t									
×	That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).									
	See attached ce	rtification statement.								
X	The fee set forth	in 37 CFR 1.17 (p) has been submitted here	with.							
	A certification sta	atement is not submitted herewith.								
	ignature of the ap n of the signature.	SIGNAT plicant or representative is required in accord		8. Please see CFR 1.4(d) for the						
Sigi	nature	/william j. james/	Date (YYYY-MM-DD)	2012-11-16						
Nar	ame/Print William J. James Registration Number 40661									
pub 1.14	lic which is to file of the fi	rmation is required by 37 CFR 1.97 and 1.98 (and by the USPTO to process) an applicatio is estimated to take 1 hour to complete, inclu e USPTO. Time will vary depending upon the	n. Confidentiality is gover ding gathering, preparing	rned by 35 U.S.C. 122 and 37 CFR and submitting the completed						

require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria**,

CERTIFICATION STATEMENT

EFS Web 2.1.17 0035

VA 22313-1450.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- 1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.
- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent A	App	lication Fee	Transm	ittal	
Application Number:	129	950933			
Filing Date:	19-Nov-2010				
Title of Invention:	MANAGEMENT OF MOBILE APPLICATIONS Jesse Wagner Lindeman				
First Named Inventor/Applicant Name:	Jesse Wagner Lindeman				
Filer:	William James/Elaine Nguyen				
Attorney Docket Number:	MOIRP007				
Filed as Large Entity					
Utility under 35 USC 111(a) Filing Fees					
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:					
Pages:					
Claims:					
Miscellaneous-Filing:					
Petition:					
Patent-Appeals-and-Interference:					
Post-Allowance-and-Post-Issuance:					
Utility Appl issue fee		1501	1	1770	1770
Publ. Fee- early, voluntary, or normal		1504 0037	1	300	300

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
xtension-of-Time:				
Miscellaneous:				
Submission- Information Disclosure Stmt	1806	1	180	180
Printed copy of patent - no color	8001	4	3	12
	Tot	al in USD	(\$)	2262

Electronic Acknowledgement Receipt		
EFS ID:	14251117	
Application Number:	12950933	
International Application Number:		
Confirmation Number:	8729	
Title of Invention:	MANAGEMENT OF MOBILE APPLICATIONS	
First Named Inventor/Applicant Name:	Jesse Wagner Lindeman	
Customer Number:	21912	
Filer:	William James/Elaine Nguyen	
Filer Authorized By:	William James	
Attorney Docket Number:	MOIRP007	
Receipt Date:	16-NOV-2012	
Filing Date:	19-NOV-2010	
Time Stamp:	20:24:55	
Application Type:	Utility under 35 USC 111(a)	

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$2262
RAM confirmation Number	7615
Deposit Account	500685
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

Charge any Additional Fees required under 37 C.F.R. Section 1.16 (National application filing, search, and examination fees)

Charge any Additional Fees required under 37 C.F.R. Section 0000 (Patent application and reexamination processing fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	MOIRP007_Issue_Fee_Transmit	100596	no	1
·		tal.pdf	550f2ee435bfda0b01e75904f634e5dda002 4477		·
Warnings:					
Information:					
2	Information Disclosure Statement (IDS)	MOIRP007_IDS_Form_SB08a_1	612265	no	4
_	Form (SB08)	1162012.pdf	974545a9555346031c7a17698ff9a598113b 3962		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	35121	no	2
3	ree worksneet (SB00)	ree-imo.pui	d643d1134d6dd986a04651ec330bc5d19c 4f93c7	110	2
Warnings:					
Information:					
		Total Files Size (in bytes)	74	17982	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

VAN PELT, YI & JAMES LLP 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014 EXAMINER

DOAN, PHUOC HUU

ART UNIT PAPER NUMBER

2617

DATE MAILED: 10/02/2012

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/950,933	11/19/2010	Jesse Wagner Lindeman	079198.0111	8729

TITLE OF INVENTION: MANAGEMENT OF MOBILE APPLICATIONS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1740	\$300	\$0	\$2040	01/02/2013

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450

Alexandria, Virginia 22313-1450 (571)-273-2885 or <u>Fax</u>

maintenance fee notifications.

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address) have its own certificate of mailing or transmission. 21912 10/02/2012 VAN PELT, YI & JAMES LLP Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below. 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014 (Depositor's name (Signature (Date APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 8729 12/950.933 11/19/2010 Jesse Wagner Lindeman 079198.0111 TITLE OF INVENTION: MANAGEMENT OF MOBILE APPLICATIONS DATE DUE ISSUE FEE DUE PUBLICATION FEE DUE PREV. PAID ISSUE FEE TOTAL FEE(S) DUE APPLN, TYPE SMALL ENTITY NO \$1740 \$300 \$0 \$2040 01/02/2013 nonprovisional CLASS-SUBCLASS **EXAMINER** ART UNIT DOAN, PHUOC HUU 455-414100 2617 1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment. (B) RESIDENCE: (CITY and STATE OR COUNTRY) (A) NAME OF ASSIGNEE 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) 4a. The following fee(s) are submitted: lssue Fee A check is enclosed. ☐ Publication Fee (No small entity discount permitted) Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number ______ (enclose an extra copy of this for Advance Order - # of Copies _ (enclose an extra copy of this form). 5. Change in Entity Status (from status indicated above) ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2). a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office. Authorized Signature Date Typed or printed name Registration No. This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process)

an application. Confidentiality is governed by 37 C.F.R. 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/950,933	11/19/2010	Jesse Wagner Lindeman	079198.0111	8729
21912 75	90 10/02/2012		EXAM	INER
VAN PELT, YI &			DOAN, PH	UOC HUU
10050 N. FOOTHI CUPERTINO, CA			ART UNIT	PAPER NUMBER
			2617	

DATE MAILED: 10/02/2012

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 98 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 98 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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- 2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- 6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- 9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

	Application No.	Applicant(s)
Notice of Allowability	12/950,933 Examiner	LINDEMAN ET AL. Art Unit
,	LXammer	Artonic
	PHUOC DOAN	2617
The MAILING DATE of this communication appear All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in or other appropriate commu GHTS. This application is s	this application. If not included inication will be mailed in due course. THIS
1. \square This communication is responsive to $\underline{07/26/2012}$.		
2. An election was made by the applicant in response to a rest the restriction requirement and election have been incorporate		during the interview on;
3. X The allowed claim(s) is/are <u>1-20</u> .		
 4. ☐ Acknowledgment is made of a claim for foreign priority under a) ☐ All b) ☐ Some* c) ☐ None of the: 	er 35 U.S.C. § 119(a)-(d) or (ff).
 Certified copies of the priority documents have 	been received.	
Certified copies of the priority documents have	been received in Applicatio	n No
3. Copies of the certified copies of the priority do	cuments have been received	d in this national stage application from the
International Bureau (PCT Rule 17.2(a)).		
* Certified copies not received:		
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		a reply complying with the requirements
5. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give		
6. CORRECTED DRAWINGS (as "replacement sheets") must	t be submitted.	
(a) I including changes required by the Notice of Draftspers	on's Patent Drawing Review	v (PTO-948) attached
1) 🔲 hereto or 2) 🔲 to Paper No./Mail Date		
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date	s Amendment / Comment or	in the Office action of
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t		
7. DEPOSIT OF and/or INFORMATION about the deposit of B attached Examiner's comment regarding REQUIREMENT FO		
Attachment(s)	E Ministra of in	Formal Datant Application
 Notice of References Cited (PTO-892) Notice of Draftperson's Patent Drawing Review (PTO-948) 		formal Patent Application ummary (PTO-413),
	Paper No./	Mail Date
3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date	7. 🔲 Examiner's	Amendment/Comment
4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. 🛛 Examiner's	Statement of Reasons for Allowance
	9. 🗌 Other	-
/PHUOC DOAN/		
Primary Examiner, Art Unit 2617		

Art Unit: 2617

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-20 are allowed.

2. The following is an examiner's statement of reasons for allowance: as the applicant stated on the remarks (pages 1-2) of amendment filed on 07/26/2012.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571)272-7920. The examiner can normally be reached on Mon-Tue, Thu-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system,

contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

would like assistance from a USPTO Customer Service Representative or access to

the automated information system, call 800-786-9199 (IN USA OR CANADA) or

571-272-1000.

/PHUOC DOAN/

Primary Examiner, Art Unit 2617

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5	((software same application same author\$5 same reques\$5 same identif\$5) and mobile).clm.		OR	ON	2012/09/25 06:57
L2	0	((software same application same author\$5 same reques\$5 same identif\$5 same profile) and mobile).clm.		OR	ON	2012/09/25 06:57
L3	3	((software same application same (author\$5 acces\$5) same reques\$5 same identif\$5 same profile) and mobile).clm.	US- PGPUB	OR	ON	2012/09/25 06:58
L4	4	((software same application same (author\$5 acces\$5) same reques\$5 same identif\$5 same (profile or sett\$5)) and mobile).clm.	US- PGPUB	OR	ON	2012/09/25 06:58
L5	191	((software same application same (author\$5 acces\$5) same reques\$5 same identif\$5 same (profile or sett\$5)) and mobile)	US- PGPUB	OR	ON	2012/09/25 06:59
L6	2	((software same application same (author\$5 acces\$5) same reques\$5 same identif\$5 same (profile or sett\$5)) and mobile) same installa\$5	US- PGPUB	OR	ON	2012/09/25 06:59
L7	31	((software same application same (author\$5 acces\$5) same reques\$5 same identif\$5 same (profile or sett\$5)) and mobile) same (installa\$5 displa\$5)	US- PGPUB	OR	ON	2012/09/25 06:59
L8	57	((software same application same (author\$5 acces\$5) same reques\$5 same identif\$5 same (profile or sett\$5)) and mobile) same (installa\$5 displa\$5 management)	US- PGPUB	OR	ON	2012/09/25 06:59
S1	295	(software same application same author\$5 same reques\$5 same identif\$5) and mobile	US- PGPUB; USPAT	OR	ON	2012/04/21 07:44
S2	53	(software same application same author\$5 same reques\$5 same identif\$5 same profile) and mobile	US- PGPUB; USPAT	OR	ON	2012/04/21 07:45
S3	5580	455/414.1.ccls.	US- PGPUB; USPAT	OR	ON	2012/04/21 08:02
S4	5117	705/1.1.ccls.	US- PGPUB; USPAT	OR	ON	2012/04/21 08:03
S5	4979	713/176.ccls.	US- PGPUB; USPAT	OR	ON	2012/04/21 08:03
S6	4	S1 and S3	US- PGPUB; USPAT	OR	ON	2012/04/21 08:03
S7	1	S1 and S4	US- PGPUB; USPAT	OR	ON	2012/04/21 08:03

S8	10	S1 and S5	US- OR	ON	2012/04/21
			PGPUB;		08:03
			USPAT		

9/25/2012 7:16:55 AM

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Issue Classification



Application/Control No.		Applicant(s)/Patent Under Reexamination
	12950933	LINDEMAN ET AL.
	Examiner	Art Unit
	PHUOC DOAN	2617

ORIGINAL								INTERNATIONAL	CLA	SS	IFIC	ATI	ON		
	CLASS		,	SUBCLASS					С	LAIMED		NON-CLAIMED			CLAIMED
455			414.1			Н	0	4	W	4 / 00 (2009.01.01)					
CROSS REFERENCE(S)															
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705	1.1														
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⊠	Claims renumbered in the same order as presented by applicant				☐ CPA ☐ T.D. ☐ R.1.47				47						
Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
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NONE		Total Claims Allowed:		
(Assistant Examiner)	(Date)	20		
/PHUOC DOAN/ Primary Examiner.Art Unit 2617	09/25/2012	O.G. Print Claim(s)	O.G. Print Figure	
(Primary Examiner)	(Date)	1	11	

Search Notes



Attached Updated Search History

	Applicant(s)/Patent Under Reexamination
12950933	LINDEMAN ET AL.

Examiner Art Unit

PHUOC DOAN 2617

SEARCHED

Class	Subclass	Date	Examiner
455	414.1; 456.1; 456.3	4/21/2012	PHD
713	176	4/21/2012	PHD
705	1.1	4/21/2012	PHD
726	6	9/25/2012	PHD

SEARCH NOTES					
Search Notes	Date	Examiner			
See Attached Search History	4/21/2012	PHD			

9/25/2012

PHD

INTERFERENCE SEARCH							
Class	Subclass	Date	Examiner				
	Attached Interferences Search History	9/25/2012	PHD				

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	LINDEMAN et al.	Examiner:	Phuoc Huu Doan		
Application No.:	12/950,933	Art Unit:	2617		
Filed:	November 19, 2010	Docket No.:	MOIRP007		
Title:	MANAGEMENT OF MOBILE APPLICATIONS				

AMENDMENT A

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

This is in response to the Office Action mailed April 26, 2012. The following amendments and remarks are respectfully submitted.

Applicant(s) believe that no (additional) fees are required beyond any fees submitted herewith. If required fees are missing or any additional fees are required during the pendency of the subject application, please charge such fees or credit any overpayment to Deposit Account No. 50-0685 (MOIRP007).

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the

application:

Listing of Claims:

1. (Currently Amended) A method, comprising:

responsive to a request for a set of applications available for installation on a mobile

device, accessing a user profile and a mobile device profile against an identifier associated with a

user;

filtering a catalog of applications based on a set of policies applied to the user profile and

mobile device profile to select a set of applications; and

returning the set of applications in response to the request;

wherein the returned set of applications is provided to a mobile device application

management interface configured to display the set of applications to the user via the application

management interface and to provide the ability for the user to select, via the application

management interface, one or more of the displayed applications for installation on the mobile

device.

2. (Original) The method of claim 1 further comprising:

accessing a user directory store to retrieve the user profile.

3. (Original) The method of claim 1 wherein the user profile comprises one or more of a role,

job title or enterprise group identifier, and wherein one or more of the policies in the set of

policies considers at least one of the role, job title and enterprise group identifiers.

4. (Original) The method of claim 1 further comprising:

identifying required applications in the set of applications; and

providing an indication of the required applications to the user.

Application Serial No. 12/950,933 Attorney Docket No. MOIRP007

5. (Original) The method of claim 1 wherein the mobile device profile comprises one or more a

model identifier, an operating system identifier, a serial number, and a Media Access Control

(MAC) address.

6. (Original) The method of claim 1 wherein the identifier is a mobile device identifier.

7. (Original) The method of claim 1 wherein the identifier is a user identifier.

8. (Currently Amended) An apparatus, comprising:

a memory;

a network interface;

one or more processors; and

computer program code stored on a non-transitory storage medium comprising

instructions operative to cause the one or more processors to:

responsive to a request for a set of applications available for installation on a mobile

device, access a user profile and a mobile device profile against an identifier associated with a

user;

filter a catalog of applications based on a set of policies applied to the user profile and

mobile device profile to select a set of applications; and

return the set of applications in response to the request;

wherein the returned set of applications is provided to a mobile device application

management interface configured to display the set of applications to the user via the application

management interface and to provide the ability for the user to select, via the application

management interface, one or more of the displayed applications for installation on the mobile

device.

9. (Original) The apparatus of claim 8 wherein the computer program code further comprises

instructions operative to cause the one or more processors to:

access a user directory store to retrieve the user profile.

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10. (Original) The apparatus of claim 8 wherein the user profile comprises one or more of a role,

job title or enterprise group identifier, and wherein one or more of the policies in the set of

policies considers at least one of the role, job title and enterprise group identifiers.

11. (Original) The apparatus of claim 8 wherein the computer program code further comprises

instructions operative to cause the one or more processors to:

identify required applications in the set of applications; and

provide an indication of the required applications to the user.

12. (Original) The apparatus of claim 8 wherein the mobile device profile comprises one or

more a model identifier, an operating system identifier, a serial number, and a Media Access

Control (MAC) address.

13. (Original) The apparatus of claim 8 wherein the identifier is a mobile device identifier.

14. (Original) The apparatus of claim 8 wherein the identifier is a user identifier.

15. (Currently Amended) A non-transitory storage medium comprising computer program code

including computer-readable instructions operative, when executed, to cause one or more

processors to:

responsive to a request for a set of applications available for installation on a mobile

device, access a user profile and a mobile device profile against an identifier associated with a

user;

filter a catalog of applications based on a set of policies applied to the user profile and

mobile device profile to select a set of applications; and

return the set of applications in response to the request;

wherein the returned set of applications is provided to a mobile device application

management interface configured to display the set of applications to the user via the application

management interface and to provide the ability for the user to select, via the application

management interface, one or more of the displayed applications for installation on the mobile

device.

Application Serial No. 12/950,933 Attorney Docket No. MOIRP007

16. (Original) The non-transitory storage medium of claim 15 wherein the computer program code further comprises instructions operative to cause the one or more processors to:

access a user directory store to retrieve the user profile.

17. (Original) The non-transitory storage medium of claim 15 wherein the user profile

comprises one or more of a role, job title or enterprise group identifier, and wherein one or more

of the policies in the set of policies considers at least one of the role, job title and enterprise

group identifiers.

18. (Original) The non-transitory storage medium of claim 15 wherein the computer program

code further comprises instructions operative to cause the one or more processors to:

identify required applications in the set of applications; and

provide an indication of the required applications to the user.

19. (Original) The non-transitory storage medium of claim 15 wherein the mobile device profile

comprises one or more a model identifier, an operating system identifier, a serial number, and a

Media Access Control (MAC) address.

20. (Original) The non-transitory storage medium of claim 15 wherein the identifier is a mobile

device identifier.

Application Serial No. 12/950,933 Attorney Docket No. MOIRP007

REMARKS

Claims 1, 8, and 15 have been amended to clarify the subject matter regarded as the invention. Claims 1-20 are pending.

Claims 1-20 stand rejected under 35 U.S.C. §102(e) as being anticipated by DeAtley.

The rejection is respectfully traversed. With respect to claims 1, 8, and 15, each has been amended to recite, "wherein the returned set of applications is provided to a mobile device application management interface configured to display the set of applications to the user via the application management interface and to provide the ability for the user to select, via the application management interface, one or more of the displayed applications for installation on the mobile device." The amendment makes clear that the claims recite applying one or more policies to *filter* a catalog of mobile device applications and provide to a particular user, via an application management interface, an "enterprise application store" interface in which the filtered set of applications available to be installed on that mobile device is displayed. Support for the amendment is found, without limitation, in Figure 6 and paragraphs [0051] – [0053].

DeAtley, by contrast, describes a technology to enable a software developer to execute on a mobile device, in a controlled manner, software code that is still under development and is not yet available to be installed in the device from a "trusted" source the device is configured to trust. DeAtley at [0026] – [0028]. The software code executed as described by DeAtley is already installed on the mobile device and executes in an "untrusted" space on the device. DeAtley at [0031] & Figure 2 (describing and showing untrusted software modules 206 as being stored on mobile device 100). DeAtley teaches the use of developer profiles install on the device to determine which "entitlements" an untrusted software code executing on the mobile device should be recognized by the operating system and/or other, trusted applications to have. DeAtley [0045] – [0046]. Finally, DeAtley teaches the policy service 210 may limit the software, based on a policy, to executing on particular, identified mobile devices. DeAtley [0055] – [0056]. However, using a policy service running on a mobile device to enforce policy-based controls on the behavior of software already installed on the device, as taught by DeAtley, is not the same as applying one or more policies to provide for display via an application management interface a

filtered set of applications available to be installed on a particular mobile device, as recited in claims 1, 8, and 15. As such, claims 1, 8, and 15 are believed to be allowable.

The remaining claims depend from claim 1, claim 8, or claim 15, and are therefore believed to be allowable for the same reasons described above.

The foregoing amendments are not to be taken as an admission of unpatentability of any of the claims prior to the amendments.

Reconsideration of the application and allowance of all claims are respectfully requested based on the preceding remarks. If at any time the Examiner believes that an interview would be helpful, please contact the undersigned.

Respectfully submitted,

Dated: July 26, 2012 /william j. james/

William J. James Registration No. 40,661 V 408-973-2592 F 408-973-2595

VAN PELT, YI & JAMES LLP 10050 N. Foothill Blvd., Suite 200 Cupertino, CA 95014

Electronic Acknowledgement Receipt EFS ID: 13353059 Application Number: 12950933 International Application Number: 8729 Title of Invention: Management of Mobile Applications First Named Inventor/Applicant Name: Jesse Wagner Lindeman Customer Number: 21912 Filer: William James/Elaine Nguyen Filer Authorized By: William James		
EFS ID:	13353059	
Application Number:	12950933	
International Application Number:		
Confirmation Number:	8729	
Title of Invention:	Management of Mobile Applications	
First Named Inventor/Applicant Name:	Jesse Wagner Lindeman	
Customer Number:	21912	
Filer:	William James/Elaine Nguyen	
Filer Authorized By:	William James	
Attorney Docket Number:	079198.0111	
Receipt Date:	26-JUL-2012	
Filing Date:	19-NOV-2010	
Time Stamp:	19:05:45	
Application Type:	Utility under 35 USC 111(a)	

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		MOIRP007 AMD A.pdf	94453	Vec	7
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Document Description	Start	End							
Amendment/Req. Reconsideration-After Non-Final Reject	1	1							
Claims	2	5							
Applicant Arguments/Remarks Made in an Amendment	6	7							

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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P	PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Α		Docket Number 0,933		ing Date 19/2010	To be Mailed
	APPLICATION AS FILED – PART I (Column 1) (Column 2)							SMALL	ENTITY	OR		HER THAN ALL ENTITY
	FOR	N	JMBER FIL	.ED	NUN	IBER EXTRA		RATE (\$)	FEE (\$)		RATE (\$)	FEE (\$)
	BASIC FEE (37 CFR 1.16(a), (b), or (c)) SEARCH FEE (37 CFR 1.16(k), (i), or (m))		N/A			N/A		N/A			N/A	
			N/A			N/A		N/A			N/A	
	EXAMINATION FE (37 CFR 1.16(o), (p),		N/A			N/A		N/A			N/A	
TO1	ΓAL CLAIMS CFR 1.16(i))		mir	us 20 = *				X \$ =		OR	X \$ =	
IND	EPENDENT CLAIM CFR 1.16(h))	IS	m	inus 3 = *				X \$ =			X \$ =	
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	MULTIPLE DEPEN	NDENT CLAIM PR	ESENT (3	7 CFR 1.16(j)))							
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	APP	(Column 1)	AMEND	(Columr	า 2)	(Column 3)		SMAL	L ENTITY	OR		ER THAN ALL ENTITY
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APPLICATION NUMBER FILING OR 371(C) DATE FIRST NAMED APPLICANT ATTY. DOCKET NO./TITLE

12/950,933 11/19/2010 Jesse Wagner Lindeman

079198.0111 **CONFIRMATION NO. 8729**

PUBLICATION NOTICE

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21912 VAN PELT, YI & JAMES LLP 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014

Title: Management of Mobile Applications

Publication No.US-2012-0129503-A1 Publication Date:05/24/2012

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
12/950,933	11/19/2010	Jesse Wagner Lindeman	079198.0111	8729			
	7590 04/26/201 [& JAMES LLP	EXAM	INER				
10050 N. FOOT	ΓHILL BLVD #200		DOAN, PHUOC HUU				
CUPERTINO, 0	CA 95014		ART UNIT	PAPER NUMBER			
			2617				
			NOTIFICATION DATE	DELIVERY MODE			
			04/26/2012	ELECTRONIC			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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		Application	No.	Applicant(s)	
Office Action Summary		12/950,933		LINDEMAN ET AL	
Office Action	on Summary	Examiner		Art Unit	
		PHUOC DO	AN	2617	
The MAILING DA Period for Reply	NTE of this communication app	ears on the o	cover sheet with the co	orrespondence ad	dress
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Applicant may not i	request that any objection to the o	drawing(s) be	held in abeyance. See	37 CFR 1.85(a).	
Replacement draw	ing sheet(s) including the correcti	ion is required	if the drawing(s) is obj	ected to. See 37 CF	FR 1.121(d).
12) The oath or declar	ration is objected to by the Ex	aminer. Note	the attached Office	Action or form PT	O-152.
Priority under 35 U.S.C. §	119				
•	is made of a claim for foreign e * c)☐ None of:	priority unde	er 35 U.S.C. § 119(a)	-(d) or (f).	
· ·	opies of the priority documents	s have been	received.		
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Attachment(s)					
1) Notice of References Cited		4) Interview Summary		
	atent Drawing Review (PTO-948)	F	Paper No(s)/Mail Da Notice of Informal Pa		
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Art Unit: 2617

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by DeAtley (US Pub No. 2009/0254753).

As to claim 1, 8, 15, DeAtley discloses a method, comprising: responsive to a request for a set of applications available for installation on a mobile device (See Fig. 9-11, par [0104-010] "disclosed in specific of application for installation on mobile device"), accessing a user profile and a mobile device profile against an identifier associated with a user (See Fig. 6-7, par [0052-0076] "provided in specific of user profile in associated with an identifier based on the authorize to installation of user access"); filtering a catalog of applications based on a set of policies applied to the user profile and mobile device profile to select a set of applications (par [0053-0077] "disclosed the feature of a catalog of applications based on a set of policies applied to mobile user profile to select a set of

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application run on the mobile device, for example Fig. 2 policy service 210; Fig. 3 profile 208"); and returning the set of applications in response to the request (See Fig. 4, 8, par [0049-0052,0077] "applications available in response to the mobile user request").

As to claim 2, 9, 16, DeAtley further discloses the method of claim 1 further comprising: accessing a user directory store to retrieve the user profile (par [0048-0054]).

As to claim 3, 10, 17, DeAtley further discloses a method of claim 1 wherein the user profile comprises one or more of a role, job title or enterprise group identifier, and wherein one or more of the policies in the set of policies considers at least one of the role, job title and enterprise group identifiers (par 0047-0057] "job tile is an information of data to make a profile and id and controlled; assigned by admin database server in order to make a policies").

As to claim 4, 11, 18, DeAtley further discloses the method of claim 1 further comprising: identifying required applications in the set of applications; and providing an indication of the required applications to the user (par [0049-0052]).

As to claim 5, 12, 19, DeAtley further discloses the method of claim 1 wherein the mobile device profile comprises one or more a model identifier, an

Art Unit: 2617

operating system identifier, a serial number, and a Media Access Control (MAC) address (par [0054-0058]).

As to claim 6, 13, 20, DeAtley further discloses the method of claim 1 wherein the identifier is a mobile device identifier (par [0056-0057]).

As to claim 7, 14, DeAtley further discloses the method of claim 1 wherein the identifier is a user identifier (par [0055-0057]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC DOAN whose telephone number is (571)272-7920. The examiner can normally be reached on Mon-Tue, Thu-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LESTER KINCAID can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR system,

contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

would like assistance from a USPTO Customer Service Representative or access to

the automated information system, call 800-786-9199 (IN USA OR CANADA) or

571-272-1000.

/PHUOC DOAN/

Primary Examiner, Art Unit 2617

Notice of References Cited Application/Control No. 12/950,933 Examiner PHUOC DOAN Applicant(s)/Patent Under Reexamination LINDEMAN ET AL. Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	Α	US-2009/0254753	10-2009	De Atley et al.	713/176
	В	US-			
	C	US-			
	D	US-			
	Е	US-			
	F	US-			
	G	US-			
	Н	US-			
	1	US-			
	J	US-			
	K	US-			
	L	US-			
	М	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
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NON-PATENT DOCUMENTS

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	*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).) Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	295	(software same application same author\$5 same reques\$5 same identif\$5) and mobile	US- PGPUB; USPAT	OR	ON	2012/04/21 07:44
L2	53	(software same application same author\$5 same reques\$5 same identif\$5 same profile) and mobile	US- PGPUB; USPAT	OR	ON	2012/04/21 07:45
L3	5580	455/414.1.ccls.	US- PGPUB; USPAT	OR	ON	2012/04/21 08:02
L4	5117	705/1.1.ccls.	US- PGPUB; USPAT	OR	ON	2012/04/21 08:03
L5	4979	713/176.ccls.	US- PGPUB; USPAT	OR	ON	2012/04/21 08:03
L6	4	1 and 3	US- PGPUB; USPAT	OR	ON	2012/04/21 08:03
L7	1	1 and 4	US- PGPUB; USPAT	OR	ON	2012/04/21 08:03
L8	10	1 and 5	US- PGPUB; USPAT	OR	ON	2012/04/21 08:03

4/21/2012 8:54:37 AM

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Search Notes

Application/Control No.	Applicant(s)/Patent Under Reexamination
12950933	LINDEMAN ET AL.
Examiner	Art Unit
PHUOC DOAN	2617

SEARCHED								
Class	Subclass	Date	Examiner					
455	414.1	4/21/2012	PHD					
713	176	4/21/2012	PHD					
705	1.1	4/21/2012	PHD					

SEARCH NOTES		
Search Notes	Date	Examiner
See Attached Search History	4/21/2012	PHD

INTERFERENCE SEARCH								
Class	Subclass	Date	Examiner					



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

BIB DATA SHEET

CONFIRMATION NO. 8729

SERIAL NUM 12/950,93		FILING or 371(c) DATE 11/19/2010		CLASS 455	GROUP ART UNIT 2617			ATTORNEY DOCKET NO. 079198.0111		
APPLICANTS Jesse Wagner Lindeman, San Jose, CA; Thomas Edward Wagner, San Jose, CA; *** CONTINUING DATA **********************************										
Foreign Priority claimed 35 USC 119(a-d) conditions met Yes No Verified and /PHUOC HUU DOAN/ Acknowledged Examiner's Signature Yes No Met after Allowance PHD Initials			STATE OR COUNTRY	DRAWINGS CLA		TOTA CLAII	MS	INDEPENDENT CLAIMS 3		
ADDRESS VAN PELT, YI & JAMES LLP 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014 UNITED STATES										
TITLE Management of Mobile Applications										
RECEIVED	FEES: Authority has been given in Paper No to charge/credit DEPOSIT ACCOUNT No for following:				☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other ☐ Credit					

	Application/Control No.	Applicant(s)/Patent Under Reexamination
Index of Claims	12950933	LINDEMAN ET AL.
	Examiner	Art Unit
	PHUOC DOAN	2617

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APPLICATION NUMBER FILING OR 371(C) DATE FIRST NAMED APPLICANT ATTY. DOCKET NO./TITLE

12/950,933 11/19/2010

Jesse Wagner Lindeman 079198.0111

21912 VAN PELT, YI & JAMES LLP 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014 POA ACCEPTANCE LETTER

OC00000050731750

Date Mailed: 11/07/2011

CONFIRMATION NO. 8729

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 10/27/2011.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

/tnnguyen/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P. Dex 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

ATTY. DOCKET NO./TITLE APPLICATION NUMBER FILING OR 371(C) DATE FIRST NAMED APPLICANT

12/950,933 11/19/2010 Jesse Wagner Lindeman 079198.0111

5073 BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980

CONFIRMATION NO. 8729 POWER OF ATTORNEY NOTICE

Date Mailed: 11/07/2011

NOTICE REGARDING CHANGE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 10/27/2011.

• The Power of Attorney to you in this application has been revoked by the assignee who has intervened as provided by 37 CFR 3.71. Future correspondence will be mailed to the new address of record(37 CFR 1.33).

/tnnguyen/			
Office of Data Management	Application Assistance Unit (571) 2	272-4000 or (571) 272-4200	or 1-888-786-010

PTC/S8/80 (11-08)
Approved for use through 11/30/2011. OMB 0651-0035
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POWER OF ATTORNEY TO PROSECUTE APPLICATIONS BEFORE THE USPTO

I hereby 37 CFR		s powers of attorney	given in the app	lication identified	I in the attac	ched statement under
I hereby						
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OR						
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Signature	11/1	WA. T	A STATE OF THE PARTY OF THE PAR		Date \mathcal{O}_i	ct.25,2011
Name		Michael A. Mor	rissey	A THE STATE OF THE	Telephone	650-919-8100
Title	Vice President, Legal and General Counsel					

This collection of information is required by 37 CFR 1.31, 1.32 and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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	S	TATEMENT UNDER	<u>(R 37 CFR 3.73(b)</u>	
Applicant/Patent	Owner: LINDEMAN et al.			
			Filed/issue Date: November 19, 2010	****
Titled:	GEMENT OF MOBILE APP			
MOBILE IRON,	INC.	, a corpora	ation	
(Name of Assignee)			of Assignee, e.g., corporation, partnership, university, government agency, etc.	•
states that it is:				
1. X the a	ssignee of the entire right, title,	and interest in;		
	signee of less than the entire riextent (by percentage) of its ow			
3 the a	ssignee of an undivided interest	t in the entirety of (a co	complete assignment from one of the joint inventors was made)	
the patent applic	ation/patent identified above, by	virtue of either:		
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,	ain of title from the inventor(s), o	of the patent application	on/patent identified above, to the current assignee as follows:	
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Add	itional documents in the chain o	f title are listed on a su	supplemental sheet(s).	
S Connect	ad by 37 CFR 3.73(b)(1)(i), the rently is being, submitted for red	· · · · · · · · · · · · · · · · · · ·	ce of the chain of title from the original owner to the assignee w 37 CFR 3.11.	/25,
			griment document(s)) must be submitted to Assignment Division re records of the USPTO. <u>See</u> MPEP 302.08]	n in
The undersigned	(whose title is supplied below)	is authorized to act on	in behalf of the assignee.	
4,				
Signatur			Date	
Wiiliam J. Jame	*****		Reg. No. 40,661	
Printed of	or Typed Name		Title	

This collection of information is required by 37 CFR 3.73(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA. 22313-1460. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA. 22313-1460.

Electronic Acknowledgement Receipt				
EFS ID:	11273475			
Application Number:	12950933			
International Application Number:				
Confirmation Number:	8729			
Title of Invention:	Management of Mobile Applications			
First Named Inventor/Applicant Name:	Jesse Wagner Lindeman			
Customer Number:	5073			
Filer:	William James/Elaine Nguyen			
Filer Authorized By:	William James			
Attorney Docket Number:	079198.0111			
Receipt Date:	27-OCT-2011			
Filing Date:	19-NOV-2010			
Time Stamp:	12:22:53			
Application Type:	Utility under 35 USC 111(a)			

Payment information:

Submitted with Payment	no
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File Listing:

MOIRG000_power_of_atty_to_ prosecute_applications_signed	Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
	1	Power of Attorney	prosecute_applications_signed	fc0aba5792c4d2d56284dc456e90f9d4eca6		1

Warnings:

Information:	0078

2	Assignee showing of ownership per 37	MOIRP007_statement_under_3	1229886	no	1
	CFR 3.73(b).	7_3_73_b.pdf	4ffe69149665b2185fbeb77637854e929b95 2443		
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Information:					
		Total Files Size (in bytes):	13	21853	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.



United States Patent and Trademark Office

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	APPLICATION	FILING or	GRP ART				
	NUMBER	371(c) DATE	UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
•	12/950,933	11/19/2010	2617	1220	079198.0111	20	3

5073 BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980 CONFIRMATION NO. 8729
UPDATED FILING RECEIPT



Date Mailed: 08/18/2011

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

Applicant(s)

Jesse Wagner Lindeman, San Jose, CA; Thomas Edward Wagner, San Jose, CA;

Assignment For Published Patent Application

MobileIron, Inc., Mountain View, CA

Power of Attorney: The patent practitioners associated with Customer Number 05073

Domestic Priority data as claimed by applicant

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.)

If Required, Foreign Filing License Granted: 12/03/2010

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/950.933**

Projected Publication Date: 05/24/2012

Non-Publication Request: No

Early Publication Request: No

Title

Management of Mobile Applications

Preliminary Class

455

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Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and quidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

Application or Docket Number PATENT APPLICATION FEE DETERMINATION RECORD 12/950,933 Substitute for Form PTO-875 APPLICATION AS FILED - PART I OTHER THAN SMALL ENTITY OR SMALL ENTITY (Column 1) (Column 2) RATE(\$) RATE(\$) FOR NUMBER FILED NUMBER EXTRA FEE(\$) FEE(\$) BASIC FEE N/A N/A N/A N/A 330 (37 CFR 1.16(a), (b), or (c)) SEARCH FEE N/A N/A N/A 540 N/A (37 CFR 1.16(k), (i), or (m)) **EXAMINATION FEE** N/A N/A N/A N/A 220 (37 CFR 1.16(o), (p), or (q)) TOTAL CLAIMS 20 OR 52 0.00 minus 20 = (37 CFR 1.16(i)) INDEPENDENT CLAIMS 3 220 0.00 minus 3 = (37 CFR 1.16(h)) If the specification and drawings exceed 100 APPLICATION SIZE sheets of paper, the application size fee due is \$270 (\$135 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 0.00 FFF (37 CFR 1.16(s)) 41(a)(1)(G) and 37 CFR 1.16(s). MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) 0.00 * If the difference in column 1 is less than zero, enter "0" in column 2. TOTAL TOTAL 1090 APPLICATION AS AMENDED - PART II OTHER THAN SMALL ENTITY OR SMALL ENTITY (Column 1) (Column 2) (Column 3) CLAIMS HIGHEST REMAINING PRESENT ADDITIONAL ADDITIONAL NUMBER RATE(\$) RATE(\$) ⋖ AFTER AMENDMENT PREVIOUSLY EXTRA FEE(\$) FEE(\$) **AMENDMENT** PAID FOR Total Minus OR (37 CFR 1.16(i)) Independent (37 CFR 1.16(h)) Minus OR Application Size Fee (37 CFR 1.16(s)) FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) OR TOTAL TOTAL OR ADD'L FEE ADD'L FEE (Column 1) (Column 2) (Column 3) CLAIMS HIGHEST REMAINING NUMBER PRESENT ADDITIONAL ADDITIONAL RATE(\$) RATE(\$) Ш PREVIOUSLY **AFTER** EXTRA FEE(\$) FEE(\$) AMENDMENT PAID FOR **AMENDMENT** Minus Total OR (37 CFR 1.16(i)) Independent Minus OR (37 CFR 1.16(h)) Application Size Fee (37 CFR 1.16(s)) OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) TOTAL TOTAL OR ADD'L FEE ADD'L FEE * If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20" *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3"

The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

SUPPLEMENTAL APPLICATION DATA SHEET

APPLICATION INFORMATION

Application No.:: 12/950,933

Filing Date:: November 19, 2010

Application Type:: Regular Subject Matter:: Utility

Title:: Management of Mobile Applications

Attorney Docket Number:: 079198.0111

Request for Early Publication?:: No Request for Non-Publication?:: No

Suggested Drawing Figure::

Total Drawing Sheets:: 11
Small Entity?:: No

APPLICANT INFORMATION

Applicant 1 Authority Type:: Inventor

Primary Citizenship Country:: US

Status:: Full Capacity

Given Name:: Jesse

Middle Name:: Wagner

Family Name:: Lindeman

City of Residence:: San Jose

State or Prov. Of Residence:: CA

Country of Residence:: US

Street of mailing address:: 4237 Verdigris Circle

City of mailing address:: San Jose

Supplemental 1/13/2011 Serial No. 12/950,933 State or Province of mailing address:: CA
Country of mailing address:: US

Postal or Zip Code of mailing address:: 95134

Applicant 2 Authority Type:: Inventor

Primary Citizenship Country:: US

Status:: Full Capacity

Given Name::

Middle Name::

Edward

Family Name::

City of Residence::

San Jose

State or Prov. Of Residence:: CA
Country of Residence:: US

Street of mailing address:: 1233 Howard Street, Apt. 2G

City of mailing address:: San Francisco

State or Province of mailing address:: CA
Country of mailing address:: US

Postal or Zip Code of mailing address:: 94103

CORRESPONDENCE INFORMATION

Correspondence Customer Number:: 05073

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Street of mailing address:: 2001 Ross Avenue, Suite 600

City of mailing address:: Dallas

State or Province of mailing address:: TX

Postal or Zip Code of mailing address:: 75201-2980

Phone number:: 650-739-7511

Supplemental 1/13/2011 Serial No. 12/950,933

- 2 -

Fax Number::

REPRESENTATIVE INFORMATION

Representative Customer Number:: 05073

ASSIGNEE INFORMATION

Assignee name:: MobileIron, Inc.

Street of mailing address:: 815A Middlefield Road

City of mailing address:: Mountain View

Country of mailing address:: US

State or Province of mailing address:: CA

Postal or Zip Code of mailing address:: 94043

1 of 5

DECLARATION AND POWER OF ATTORNEY

As a below-named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name; I believe the named inventor or inventors are the original and first inventor or inventors of the subject matter which is claimed in and for which a patent is sought on the application entitled *Management of Mobile Applications*, filed November 19, 2010 as U.S. Patent Application No. 12/950,933; and

I have reviewed and I understand the contents of the above-identified application, including the claims, as amended by any amendment specifically referred to above; I do not know and I do not believe that the above-identified subject matter was ever known or used in the United States of America before my invention or discovery thereof, patented or described in any printed publication in any country before my invention or discovery thereof or more than one year prior to the above-identified application, or in public use or on sale in the United States of America more than one year prior to the above-identified application; the above-identified subject matter has not been patented or made the subject of an inventor's certificate issued prior to the date of the above-identified application in any country foreign to the United States of America on an application filed by me or my legal representatives or assigns; and I acknowledge the duty to disclose to the U.S. Patent and Trademark Office all information known to me to be material to patentability as defined by 37 C.F.R. § 1.56, which for a continuation-in-part application includes information known to me to be material to patentability as defined by 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or (f) or 35 U.S.C. § 365 of any foreign application for patent or inventor's certificate or PCT international application listed below and I have identified below, by indicating priority not claimed, any

PAL01:109412.1

DECLARATION AND POWER OF ATTORNEY 12/950,933

2 of 5

foreign application for patent or inventor's certificate or any PCT international application having a filing date before that of the application on which priority is claimed:

		Priority
	Date	Claimed
Country	<u> Filed</u>	(Yes or No)
	NONE	
4 1 6 1	25116661206	T ** 10 **
n the benefit under	35 U.S.C. § 120 of any U	Inited States patent application
Dat	e	•
	ed	Status
	m the benefit under	Country Filed

I hereby appoint the following as my attorneys or agents, with full power of substitution and revocation, to prosecute the above-identified application, to transact all business in the United States Patent and Trademark Office connected therewith, and to file and prosecute any international patent application filed thereon before any international authority.

The practitioners at Customer Number 05073

Send correspondence to

Direct telephone calls to

Mark J. Spolyar

Mark J. Spolyar at 650.739.7511

at Customer Number 05073

I hereby declare that all statements made herein of my own knowledge are true; that all statements made on information and belief are believed to be true; and that these statements are made with the knowledge that willful false statements and the like so made are punishable by

PAL01:109412.1

ATTORNEY DOCKET 079198.0111

DECLARATION AND POWER OF ATTORNEY 12/950,933

3 of 5

fine or imprisonment, or both, under 18 U.S.C. § 1001 and any such willful false statements may jeopardize the validity of the above-identified application or any patent issuing thereon.

ATTORNEY DOCKET 079198.0111

DECLARATION AND POWER OF ATTORNEY 12/950,933

4 of 5

Title of Patent Application:

Management of Mobile Applications

Patent Application No.:

12/950,933

Filed:

November 19, 2010

Name of inventor:

Jesse Wagner Lindeman

Signature of inventor:

12-15-2010

Date:

Residence:

San Jose, California, United States of America

Country of citizenship:

United States of America

Mailing address:

815A East Middlefield Road Mountain View, CA 94043

ATTORNEY DOCKET 079198.0111

DECLARATION AND POWER OF ATTORNEY 12/950,933

5 of 5

Title of Patent Application:

Management of Mobile Applications

Patent Application No.:

12/950,933

Filed:

November 19, 2010

Name of inventor:

Thomas Edward Wagner

Signature of inventor:

12-15-2010

Date:

Residence:

San Jose, California, United States of America

Country of citizenship:

United States of America

Mailing address:

815A East Middlefield Road Mountain View, CA 94043

Electronic Patent Application Fee Transmittal										
Application Number:	12950933									
Filing Date:	19-Nov-2010									
Title of Invention:	Management of Mobile Applications									
First Named Inventor/Applicant Name: Jesse Wagner LINDEMAN										
Filer:	Filer: Mark James Spolyar/Jennifer Gross									
Attorney Docket Number:	07	9198.0111								
Filed as Large Entity										
Utility under 35 USC 111(a) Filing Fees										
Description		Fee Code	Quantity	Amount	Sub-Total in USD(\$)					
Basic Filing:										
Pages:										
Claims:										
Miscellaneous-Filing:										
Late filing fee for oath or declaration 1051 1 130										
Petition:										
Patent-Appeals-and-Interference:										
Post-Allowance-and-Post-Issuance:										
Extension-of-Time:		0092								

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Miscellaneous:				
	Tot	al in USD	(\$)	130

Electronic Acknowledgement Receipt							
EFS ID:	9223404						
Application Number:	12950933						
International Application Number:							
Confirmation Number:	8729						
Title of Invention:	Management of Mobile Applications						
First Named Inventor/Applicant Name:	Jesse Wagner LINDEMAN						
Customer Number:	05073						
Filer:	Mark James Spolyar/Jennifer Gross						
Filer Authorized By:	Mark James Spolyar						
Attorney Docket Number:	079198.0111						
Receipt Date:	13-JAN-2011						
Filing Date:	19-NOV-2010						
Time Stamp:	13:16:20						
Application Type:	Utility under 35 USC 111(a)						

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$130
RAM confirmation Number	9501
Deposit Account	020384
Authorized User	

File Listing:

Document Document Des	ription 00명ile Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
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1	Application Data Sheet	Supplemental_ADS_for_07919	60065	no	3
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3	Foo Workshoot (DTO 975)	fee-info.pdf	29780	20	2
5	Fee Worksheet (PTO-875)	ree-inio.pai	1d6e18297a49c2c0aef57e3db850205c9f8e edf9	no	2
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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Application or Docket Number PATENT APPLICATION FEE DETERMINATION RECORD 12/950,933 Substitute for Form PTO-875 APPLICATION AS FILED - PART I OTHER THAN SMALL ENTITY OR SMALL ENTITY (Column 1) (Column 2) RATE(\$) RATE(\$) FOR NUMBER FILED NUMBER EXTRA FEE(\$) FEE(\$) BASIC FEE N/A N/A N/A N/A 330 (37 CFR 1.16(a), (b), or (c)) SEARCH FEE N/A N/A N/A 540 N/A (37 CFR 1.16(k), (i), or (m)) **EXAMINATION FEE** N/A N/A N/A N/A 220 (37 CFR 1.16(o), (p), or (q)) TOTAL CLAIMS 20 OR 52 0.00 minus 20 = (37 CFR 1.16(i)) INDEPENDENT CLAIMS 3 220 0.00 minus 3 = (37 CFR 1.16(h)) If the specification and drawings exceed 100 APPLICATION SIZE sheets of paper, the application size fee due is \$270 (\$135 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 0.00 FFF (37 CFR 1.16(s)) 41(a)(1)(G) and 37 CFR 1.16(s). MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) 0.00 * If the difference in column 1 is less than zero, enter "0" in column 2. TOTAL TOTAL 1090 APPLICATION AS AMENDED - PART II OTHER THAN SMALL ENTITY OR SMALL ENTITY (Column 1) (Column 2) (Column 3) CLAIMS HIGHEST REMAINING PRESENT ADDITIONAL ADDITIONAL NUMBER RATE(\$) RATE(\$) ⋖ AFTER AMENDMENT PREVIOUSLY EXTRA FEE(\$) FEE(\$) **AMENDMENT** PAID FOR Total Minus OR (37 CFR 1.16(i)) Independent (37 CFR 1.16(h)) Minus OR Application Size Fee (37 CFR 1.16(s)) FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) OR TOTAL TOTAL OR ADD'L FEE ADD'L FEE (Column 1) (Column 2) (Column 3) CLAIMS HIGHEST REMAINING NUMBER PRESENT ADDITIONAL ADDITIONAL RATE(\$) RATE(\$) Ш PREVIOUSLY **AFTER** EXTRA FEE(\$) FEE(\$) AMENDMENT PAID FOR **AMENDMENT** Minus Total OR (37 CFR 1.16(i)) Independent Minus OR (37 CFR 1.16(h)) Application Size Fee (37 CFR 1.16(s)) OR FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) TOTAL TOTAL OR ADD'L FEE ADD'L FEE * If the entry in column 1 is less than the entry in column 2, write "0" in column 3. ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20" *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3"

The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION	FILING or	GRP ART				
NUMBER	371(c) DATE	UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
12/950.933	11/19/2010	2617	1090	079198 0111	20	3

CONFIRMATION NO. 8729

FILING RECEIPT

OC00000044795602

5073 BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980

Date Mailed: 12/07/2010

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections

Applicant(s)

Jesse Wagner LINDEMAN, San Jose, CA; Thomas Edward WAGNER, San Francisco, CA;

Assignment For Published Patent Application

MobileIron, Mountain View, CA

Power of Attorney: None

Domestic Priority data as claimed by applicant

Foreign Applications

If Required, Foreign Filing License Granted: 12/03/2010

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 12/950,933**

Projected Publication Date: To Be Determined - pending completion of Missing Parts

Non-Publication Request: No

Early Publication Request: No

Title

Management of Mobile Applications

Preliminary Class

455

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and quidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

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set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virgnia 22313-1450 www.uspto.gov

APPLICATION NUMBER FILING OR 371(C) DATE FIRST NAMED APPLICANT ATTY. DOCKET NO./TITLE

 079198.0111 **CONFIRMATION NO. 8729**

5073 BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980

FORMALITIES LETTER

Date Mailed: 12/07/2010

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The oath or declaration is missing.
- A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
- Note: If a petition under 37 CFR 1.47 is being filed, an oath or declaration in compliance with 37 CFR 1.63 signed by all available joint inventors, or if no inventor is available by a party with sufficient proprietary interest, is required.

The applicant needs to satisfy supplemental fees problems indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

• A surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.16(f) of \$130 for a non-small entity, must be submitted.

SUMMARY OF FEES DUE:

Total fee(s) required within **TWO MONTHS** from the date of this Notice is \$130 for a non-small entity • \$130 Surcharge.

Replies should be mailed to:

Mail Stop Missing Parts Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450

Registered users of EFS-Web may alternatively submit their reply to this notice via EFS-Web. https://sportal.uspto.gov/authenticate/AuthenticateUserLocalEPF.html

For more information about EFS-Web please call the USPTO Electronic Business Center at **1-866-217-9197** or visit our website at http://www.uspto.gov/ebc.

If you are not using EFS-Web to submit your reply, you must include a copy of this notice.

/mhaile/					
Office of Data Management, Application Assistance Unit (571)	272-4000	or (571)	272-4200,	or 1-888	-786-010 ⁻

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Δnnli	cation Da	ata S	heet 37	CER	1 76	Attorne	Attorney Docket Number 079198.0111							
Appii	cation be	ata O	iicct or	OI IX	1.70	Applica	ation N	lumb	er					
Title of	Invention	Man	agement o	of Mob i	le Appli	ications								
The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the														
bibliogra This doc	bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76. This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.													
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Management of Mobile Applications

TECHNICAL FIELD

[0001] This disclosure relates generally to mobile devices and management systems and, more particularly, to managing applications for mobile devices.

BACKGROUND

[0002] In a manner similar to personal computers and laptops, business enterprises increasingly rely on mobile and handheld devices. Indeed, the capabilities and uses of mobile devices have moved beyond voice communications and personal information management applications to a variety of communications- and business-related functions including email, browsing, instant messaging, enterprise applications, and video applications. For example, the functionality of many mobile devices have been extended to include cellular and wireless local area network (WLAN) communications interfaces, as well as virtual private network (VPN) and other client applications. Furthermore, mobile devices used in enterprises may also include enterprise applications used by employees in the field or otherwise.

[0003] Deployment, management and configuration of mobile and handheld devices in enterprise environments, however, present certain challenges. For example, the vast and constantly changing variety of mobile device types, functions and capabilities presents challenges to configuration, provisioning and troubleshooting. Moreover, the number and variety of applications that can be installed on mobile devices, as well as the nature of the mobile devices themselves, challenges network administrators relative to network security, deployment and overall management.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] FIGURE 1 illustrates an example mobile device management architecture according to an embodiment of the present disclosure.

[0005] FIGURE 2 is a schematic diagram illustrating an example server system architecture.

[0006] FIGURE 3 is a schematic diagram illustrating an example mobile device system architecture.

[0007] FIGURE 4 provides an example mobile device software architecture.

[8000]

[0009] FIGURE 5 shows an example user portal interface.

[0010] FIGURE 6 shows another example user portal interface.

[0011] FIGURE 7 shows a flowchart illustrating an example process for identifying a list of available applications for a mobile device.

[0012] FIGURES 8, 9 and 10 show example application management interfaces.

[0013] FIGURE 11 shows a flowchart illustrating an example process for applying policies that respond to installation of an application on a mobile device.

[0014] FIGURE 12 is an example mobile device management interface for ActiveSync and similar clients.

[0015] FIGURE 13 is an example management interface for blocking applications from launching on managed mobile devices.

DESCRIPTION OF EXAMPLE EMBODIMENTS

[0016] Particular embodiments of the present disclosure provide methods, apparatuses and systems directed to managing and controlling the deployment of applications hosted on mobile devices in an enterprise environment. In particular

[0017] In particular embodiments, a mobile device management system allows network administrators to control the distribution and publication of applications to mobile device users in an enterprise network. In some implementations, the device management system allows network administrators to configure lists or catalogs of authorized and recommended applications regardless of what system (internal/external) hosts access to the executable for download. The mobile device management system may also monitor the installation of applications on mobile devices and take policy actions based on the detected installs. In some particular embodiments, a mobile device management system is operative to monitor the security state of one or more mobile devices and set indicators related to such security state. Enterprise network applications, such as an email application, can access the security state information when making access control decisions with respect to a given mobile device.

[0018] In particular embodiments, each mobile device includes a control client application (hereinafter referred to as "control client") that is configured to interact with the device management system and a network link. More particularly, the control client application is configured to receive data, commands, and other messages from the device management system via a network link, to synchronize the state of the mobile device with the corresponding device object stored at the device management database, and to selectively track and upload data over the network link to the device management system and database. In various embodiments, the control client logs man-machine interface (MMI) data, file system commands, and other data characterizing usage of, and/or the actions performed on, the mobile device. Some or all of the log data is provided to the device management application hosted on the device management server, which can synchronize a device object stored at the database with that of the mobile device, and vice versa.

[0019] FIGURE 1 illustrates a block diagram of a computer network environment 100 in accordance with an example embodiment. Computer network environment 100 includes a device management system 102 and a plurality of mobile devices 104 that may each communicate with device management system 102 via one or more network links 106. In

various embodiments, device management system 102 may actually comprise one or more device management servers and device management databases, one or more of which may or may not be physically located within the physical boundaries of the enterprise.

[0020] Network link(s) 106 may include any suitable number or arrangement of interconnected networks including both wired and wireless networks. By way of example, a wireless communication network link over which mobile devices 104 communicate may utilize a cellular-based communication infrastructure that includes cellular-based communication protocols such as AMPS, CDMA, TDMA, GSM (Global System for Mobile communications), iDEN, GPRS, EDGE (Enhanced Data rates for GSM Evolution), UMTS (Universal Mobile Telecommunications System), WCDMA and their variants, among others. In various embodiments, network link 106 may further include, or alternately include, a variety of communication channels and networks such as WLAN/WiFi, WiMAX, Wide Area Networks (WANs), and BlueTooth.

[0021] As FIGURE 1 illustrates, device management system 102 may be operably connected with (or included within) an enterprise network 110 (which may include or be a part of network link(s) 106). Enterprise network 110 may further include one or more of email or exchange servers 112, enterprise application servers 114, internal application store servers 122, authentication (AAA) servers 116, directory servers 118, Virtual Private Network (VPN)/SSL gateways 120, firewalls, among other servers and components. Email or exchange servers 112 may include Exchange ActiveSync (EAS) or other functionality that provides synchronization of contacts, calendars, tasks, and email between ActiveSync-enabled servers and mobile devices. Other synchronization protocols can also be used. The mobile devices 104 may access or utilize one or more of these enterprise systems or associated functionality.

Example System Architectures for Management System and Mobile Devices

[0022] Management system 102 may actually include one or more hardware, firmware, and software components residing at one or more computer servers or systems (hereinafter referred to as computer systems). Software components of device management system 102 may be at one or more of the same computer systems. FIGURE 2 illustrates an example computer system 200. Device management system 102 may include software components at one or more computer systems, which may be similar to example computer system 200. Particular embodiments may

implement various functions of device management system 102 as hardware, software, or a combination of hardware and software. As an example and not by way of limitation, one or more computer systems may execute particular logic or software to perform one or more steps of one or more processes described or illustrated with respect to device management system 102. One or more of the computer systems may be unitary or distributed, spanning multiple computer systems or multiple datacenters, where appropriate. The present disclosure contemplates any suitable computer system. Herein, reference to logic may encompass software, and vice versa, where appropriate. Reference to software may encompass one or more computer programs, and vice versa, where appropriate. Reference to software may encompass data, instructions, or both, and vice versa, where appropriate. Similarly, reference to data may encompass instructions, and vice versa, where appropriate.

[0023] One or more tangible computer-readable media may store or otherwise embody software implementing particular embodiments. A tangible computer-readable medium may be any tangible medium capable of carrying, communicating, containing, holding, maintaining, propagating, retaining, storing, transmitting, transporting, or otherwise embodying software, where appropriate. A tangible computer-readable medium may be a biological, chemical, electronic, electromagnetic, infrared, magnetic, optical, quantum, or other suitable medium or a combination of two or more such media, where appropriate. A tangible computer-readable medium may include one or more nanometer-scale components or otherwise embody nanometer-scale design or fabrication. Example tangible, non-transitory computer-readable media include, but are not limited to, application-specific integrated circuits (ASICs), compact discs (CDs), field-programmable gate arrays (FPGAs), floppy disks, floptical disks, hard disks, holographic storage devices, magnetic tape, caches, programmable logic devices (PLDs), random-access memory (RAM) devices, read-only memory (ROM) devices, semiconductor memory devices, and other suitable computer-readable media.

[0024] Software implementing particular embodiments may be written in any suitable programming language (which may be procedural or object oriented) or combination of programming languages, where appropriate. Any suitable type of computer system (such as a single- or multiple-processor computer system) or systems may execute software implementing particular embodiments, where appropriate. A general-purpose or specific-purpose computer system may execute software implementing particular embodiments, where appropriate.

[0025] The components in FIGURE 2 are examples only and do not limit the scope of use or functionality of any hardware, software, embedded logic component, or a combination of two or more such components implementing particular embodiments. Computer system 200 may have any suitable physical form, including but not limited to one or more integrated circuits (ICs), printed circuit boards (PCBs), mobile handheld devices (such as mobile telephones or PDAs), laptop or notebook computers, distributed computer systems, computing grids, or servers. Computer system 200 may include a display 232, one or more input devices 233 (which may, for example, include a keypad, a keyboard, a mouse, a stylus, etc.), one or more output devices 234, one or more storage devices 235, and various tangible storage media 236.

[0026] Bus 240 connects a wide variety of subsystems. Herein, reference to a bus may encompass one or more digital signal lines serving a common function, where appropriate. Bus 240 may be any of several types of bus structures including a memory bus, a peripheral bus, or a local bus using any of a variety of bus architectures. As an example and not by way of limitation, such architectures include an Industry Standard Architecture (ISA) bus, an Enhanced ISA (EISA) bus, a Micro Channel Architecture (MCA) bus, a Video Electronics Standards Association local bus (VLB), a Peripheral Component Interconnect (PCI) bus, a PCI-Express (PCI-X) bus, and an Accelerated Graphics Port (AGP) bus.

[0027] Processor(s) 201 (or central processing unit(s) (CPU(s))) optionally contains a cache memory unit 202 for temporary local storage of instructions, data, or computer addresses. Processor(s) 201 are coupled to tangible storage devices including memory 203. Memory 203 may include random access memory (RAM) 204 and read-only memory (ROM) 205. ROM 205 may act to communicate data and instructions unidirectionally to processor(s) 201, and RAM 704 may act to communicate data and instructions bidirectionally with processor(s) 201. ROM 205 and RAM 204 may include any suitable tangible computer-readable media described below. Fixed storage 208 is connected bidirectionally to processor(s) 201, optionally through storage control unit 207. Fixed storage 208 provides additional data storage capacity and may also include any suitable tangible computer-readable media described. Storage 208 may be used to store operating system 209, EXECs 210, data 211, application programs 212, and the like. Typically, storage 208 is a secondary storage medium (such as a hard disk) that is slower than primary storage. Information in storage 208 may, in appropriate cases, be incorporated as virtual memory in memory 203.

[0028]Processor(s) 201 is connected to multiple interfaces, such as graphics control 221, video interface 222, input interface 223, output interface 224, storage interface 225, and storage medium interface 226. These interfaces are in turn connected to appropriate devices, as may be illustrated. In general, an input/output (I/O) device may be a video display, a track ball, a mouse, a keyboard, a microphone, a touch-sensitive display, a transducer card reader, a magnetic- or paper- tape reader, a tablet, a stylus, a voice or handwriting recognizer, a biometrics reader, another computer system, or other suitable I/O device or a combination of two or more such I/O devices. Processor(s) 201 may connect to another computer system or to telecommunications network 230 (which may include network link 106 or enterprise network 110) through network interface 220. With network interface 220, CPU 201 may communicate with network 230 in the course of performing one or more steps of one or more processes described or illustrated herein, according to particular needs. Moreover, one or more steps of one or more processes described or illustrated herein may execute solely at CPU 201. In addition or as an alternative, one or more steps of one or more processes described or illustrated herein may execute at multiple CPUs 201 that are remote from each other across network 230.

[0029] In particular embodiments, when computer system 200 is connected to network 230, computer system 200 may communicate with other devices, specifically mobile devices 104 and enterprise systems, connected to network 230. Communications to and from computer system 200 may be sent through network interface 220. For example, network interface 220 may receive incoming communications (such as requests or responses from other devices) in the form of one or more packets (such as Internet Protocol (IP) packets) from network 230 and computer system 200 may store the incoming communications in memory 203 for processing. Computer system 200 may similarly store outgoing communications (such as requests or responses to other devices) in the form of one or more packets in memory 203 and communicated to network 230 from network interface 220. Processor(s) 201 may access these communication packets stored in memory 203 for processing.

[0030] Computer system 200 may provide functionality as a result of processor(s) 201 executing software embodied in one or more tangible computer-readable storage media, such as memory 203, storage 208, storage devices 235, and/or storage medium 236. The computer-readable media may store software that implements particular embodiments, and processor(s) 201 may execute the software. Memory 203 may read the software from one or more other

computer-readable media (such as mass storage device(s) 235, 236) or from one or more other sources through a suitable interface, such as network interface 220. The software may cause processor(s) 201 to carry out one or more processes or one or more steps of one or more processes described or illustrated herein. Carrying out such processes or steps may include defining data structures stored in memory 203 and modifying the data structures as directed by the software. In addition or as an alternative, computer system 200 may provide functionality as a result of logic hardwired or otherwise embodied in a circuit, which may operate in place of or together with software to execute one or more processes or one or more steps of one or more processes described or illustrated herein. Herein, reference to software may encompass logic, and vice versa, where appropriate. Moreover, reference to a computer-readable medium may encompass a circuit (such as an IC) storing software for execution, a circuit embodying logic for execution, or both, where appropriate. The present disclosure encompasses any suitable combination of hardware, software, or both.

[0031] In particular embodiments, a mobile device 104 is a wireless phone such as a mobile or cellular phone. By way of example, mobile device 104 may be a smartphone (e.g., the iPhone manufactured by Apple Inc. of Cupertino, CA, the BlackBerry manufactured by Research in Motion (RIM), the G1 based on the Android operating system, or Samsung BlackJack based on the Windows Mobile operating system), tablet (e.g. the iPad manufactured by Apple Inc. of Cupertino, CA), feature phone, basic cellular phone, personal digital assistant, or other multimedia device. Additionally, mobile device 104 may be affiliated with and supported by any suitable carrier or network service provider such as, by way of example, Sprint PCS, T-Mobile, Verizon, AT&T, or other suitable carrier.

[0032] FIGURE 3 shows a schematic representation of the main components of an example mobile device 104, according to various particular embodiments, which is adapted for use in connection with a GSM network or any other mobile telephone network as described above, and which may also be configured to meet the wireless application protocol specification (WAP). Mobile device 104 generally includes a controller 304 which may comprise a microcontroller or one or more processors configured to execute instructions and to carry out operations associated with mobile device 104. In various embodiments, controller 304 may be implemented as a single-chip, multiple chips and/or other electrical components including one or more integrated circuits and printed circuit boards. Controller 304 may optionally contain a cache memory unit

for temporary local storage of instructions, data, or computer addresses. By way of example, using instructions retrieved from memory, controller 304 may control the reception and manipulation of input and output data between components of mobile device 104.

[0033]Controller 304 together with a suitable operating system may operate to execute instructions in the form of computer code and produce and use data. By way of example and not by way of limitation, the operating system may be Windows-based, Mac-based, or Unix or Linux-based, or Symbian-based, among other suitable operating systems. The operating system, other computer code (including control client 308 described below) and/or data may be physically stored within a memory block 306 that is operatively coupled to controller 304.

[0034] Memory block 306 encompasses one or more storage mediums and generally provides a place to store computer code (e.g., software and/or firmware) and data that are used by mobile device 104. By way of example, memory block 306 may include various tangible computer-readable storage media including Read-Only Memory (ROM) and/or Random-Access Memory (RAM). As is well known in the art, ROM acts to transfer data and instructions unidirectionally to controller 304, and RAM is used typically to transfer data and instructions in a bi-directional manner. Memory block 306 may also include one or more fixed storage devices in the form of, by way of example, solid-state hard disk drives (HDDs), among other suitable forms of memory coupled bi-directionally to controller 304. Information may also reside on a removable storage medium loaded into or installed in mobile device 104 when needed. By way of example, any of a number of suitable memory cards may be loaded into mobile device 104 on a temporary or permanent basis. By way of example, mobile device 104 may also include a subscriber identification module (SIM) card 328 and a SIM card reader 330.

Controller 304 is also generally coupled to a variety of interfaces such as graphics [0035]control, video interface, input interface, output interface, and storage interface, and these interfaces in turn are coupled to the appropriate devices. Controller 304 is also coupled to a network interface 305 that allows mobile device 104, and particularly controller 304, to be coupled to another computer (e.g., device management system 102) or telecommunications network (e.g., network link 106 or enterprise network 110). More particularly, network interface 305 generally allows controller 304 to receive information from network link 106, or might output information to the network link in the course of performing various method steps described below. Communications may be sent to and from mobile device 104 via network interface 305. By way of example, incoming communications, such as a request or a response from another device (e.g., device management system 102), in the form of one or more packets, may be received from network link 106 at network interface 305 and stored in selected sections in memory block 306 for processing. Outgoing communications, such as a request or a response to another device (e.g., device management system 102), again in the form of one or more packets, may also be stored in selected sections in memory 306 and sent out to network link 106 at network interface 305. Controller 304 may access these communication packets stored in memory 306 for processing.

[0036]Electric signals (e.g., analog) may be produced by microphone 310 and fed to earpiece 312. Controller 304 may receive instruction signals from keypad 314 (which may include soft keys) and control the operation of display 316 (In alternate embodiments, keypad 314 may be implemented as a virtual keypad displayed on display 316). By way of example, display 316 may incorporate liquid crystal display (LCD), light emitting diode (LED), Interferometric modulator display (IMOD), or any other suitable display technology. Radio signals may be transmitted and received by means of an antenna 318 that may be connected through a radio interface 320 to codec 322 configured to process signals under control of controller 304. Thus, in use for speech, codec 322 may receive signals (e.g., analog) from microphone 310, digitize them into a form suitable for transmission, and feed them to radio interface 320 for transmission through antenna 318 to, for example, a public land mobile network (PLMN). Similarly, received signals may be fed to codec 322 so as to produce signals (e.g., analog) which may be fed to ear piece 312. Mobile device 104 also generally includes a ringer (e.g., speaker) 324 and may also include light emitting diodes (LEDs) 326. In particular embodiments, mobile device 104 may be a dual mode phone having a wireless local area network (WLAN) interface, Worldwide Interoperability for Microwave Access (WiMAX) interface, and/or other wireless or physical interfaces (such as BlueTooth® and USB). Additionally, mobile device 104 may be powered by a removable battery pack 332.

[0037] Mobile device 104 may also include one or more user input devices 334 (other than keypad 314) that are operatively coupled to the controller 304. Generally, input devices 334 are configured to transfer data, commands and responses from the outside world into mobile device 108. By way of example, mobile device may include a joystick or directional pad. Input devices

334 may also include one or more hard buttons. Input devices may further include Global Positioning System modules, accelerometers, cameras, and the like.

[0038] Display device 316 is generally configured to display a graphical user interface (GUI) that provides an easy to use visual interface between a user of the mobile device 104 and the operating system or application(s) running on the mobile device. Generally, the GUI presents programs, files and operational options with graphical images. During operation, the user may select and activate various graphical images displayed on the display 316 in order to initiate functions and tasks associated therewith.

[0039] In particular embodiments, each mobile device 104 includes a control client 308 that is configured to interact with the device management system 102 via network link 106. Control client 308 may generally be implemented as one or more software programs or applications stored in, by way of example, memory 306. Control client 308 is configured to receive data, commands, and other messages from the device management system 102 via network link 106, to synchronize the state of the mobile device 104 with a corresponding mobile device profile object stored at a device management database, and to selectively track and upload data over the network link to the device management system for logging by the device management system, as will be described in detail below. The logged data may include particular files (e.g., documents, spreadsheets, pdfs, pictures, etc.) stored in the mobile device as well particular application usage data in the form of, by way of example, activity data (e.g., data regarding calls, messages, and email), content data (e.g., the text within the message or email body), and/or context data (e.g., timestamps and location data, etc.), as will be described in more detail below. In various embodiments, the control client logs man-machine interface (MMI) data, file system commands, and other data characterizing usage of, and/or the actions performed on, the mobile device. Some or all of the log data is provided to the device management application hosted on the device management system 102, which can synchronize a device object stored at the database with that of the mobile device, and vice versa.

[0040] In this manner, the device management system 102 may provide an administrator a detailed snapshot of the state of each mobile device 104, and facilitate device management operations. In particular, various embodiments enable selective erasing, tagging, copying, moving, modifying, viewing, and/or other selective action on or of particular data stored in a

particular registered mobile device or designated group of mobile devices via the device management system 102.

[0041] In particular embodiments, device management system 102 is configured to selectively log data from each of the mobile devices 104 of an enterprise. More particularly, mobile device 104 may be configured to selectively track and/or log data and to upload this data to device management system 102 which, in turn, selectively logs or stores the data. In particular embodiments, each mobile device 104 is first registered with the device management system 102 by creating and storing a device object for the mobile device within the device management system 102. By way of example, an employee desiring to use a personally owned mobile device 104 may indicate to management that he or she desires to use the personally owned mobile device 104 with enterprise related services (e.g., email or access to an enterprise database) and needs enterprise access. Alternately, an employee receiving a mobile device 104 under a corporate liable plan may receive an enterprise owned mobile device 104 upon commencing employment or receiving a mobile device upgrade, by way of example. In particular embodiments, registering a mobile device 104 with the device management system 102 includes creating and storing a device object in a database within or connected with device management system 102. The device object may be implemented as part of a data structure corresponding to the particular mobile device 104. By way of example, a particular device object may include a device identifier that uniquely identifies the corresponding mobile device.

[0042] Figure 4 illustrates how control client functionality may be integrated with mobile device 104. In particular embodiments, the control client functionality may include a control client application 308 and one or more control points inserted to monitor data traversing the interfaces of the mobile device 104. For example, a man-machine interface (MMI) control point 406 may be inserted into the driver stack of the man-machine interface 408 to log keystroke data. An application/file system control point 410 may be inserted to monitor and log application level and file system commands. Additionally, stack control point 414 may be inserted in one or more network protocol stacks of the mobile device 104, while port control points 418 may be inserted at a different layer of the network protocol stack. In various embodiments, one or more of the control points may be implemented as drivers that are installed in the appropriate driver stacks of the mobile device. In some implementations, the control points may emulate the operation of

higher layer and/or lower layer drivers and pass data on to the lower or higher layer native drivers. In some embodiments, a rule set may define what data is captured.

[0043] Control client application 308 may store the data collected by the control points in one or more log files stored on a storage device of the mobile device. For example, control client application 308 may store file system commands (such as open, save, delete, copy, rename, etc.) in file system log 344. Furthermore, control client application 308 may store keystroke data in behavior log 452. Still further, control client application 308 may store data relating to its own operation in control log 440.

[0044] The control client application 308 can provide some of all of the data to device management system 102, which may update one or more data objects that are associated with the mobile device 104 in a database. In this manner, a central device management system 102 can, for example, maintain an accurate image of the data storage device(s) of the mobile device 104, including the applications installed and the files stored on the mobile device. In various embodiments, control client application 308 may operate to provide this data in real-time, intermittently during periods of non-activity (e.g., such as when the mobile device is inserted into a charging cradle), in addition to, or at, periodic intervals. Still further, the data may be provided to the device management system 102 during a synchronization operation between the mobile device and the user's personal computer. In a particular embodiment, a synchronization utility hosted by the user's personal computer may be configured to transmit the data to the device management system 102. In addition, the control client application 308 may operate in one to a plurality of modes based on a set of rules or policies. Furthermore, the control client application 308 may also apply a rule set that determines what data is provided to the device management system 102, and/or when such data is transmitted.

[0045] In particular embodiments, the control client application 308 and the remote management server 102 may establish encrypted connections. For example, Virtual Private Network (VPN) tunneling and encryption may be used to secure the connection. In a particular implementation, mobile device 104 may include port-based VPN functionality to encrypt the connection between the control client application 308 and the remote management server 102. Still further, since the control client application 308 operates in connection with control points inserted into the protocol stacks of various input/output devices, it can control access to such devices, such as by locking down (preventing data flow to or from) the input/output devices.

[0046] In various embodiments, mobile devices 104 may include device management and/or data synchronization functionality. For example, mobile devices 104 may support the Open Mobile Alliance (OMA) Device Management (DM) protocol, and/or the OMA Data Synchronization (DS) protocol. OMA DM is a protocol specified by OMA for DM purposes, by the Device Management Working Group and the Data Synchronization Working Group. One such specification is OMA DM version 1.2, which is incorporated by reference herein. The OMA DM specification is designed for management of small mobile devices such as, by way of example, mobile phones, mobile smart phones, PDAs and palm top computers. The device management may support 1) provisioning (configuration of the device (including first time use), enabling and disabling features); 2) configuration (allowing changes to settings and parameters of the device); 3) software upgrades (providing for new software and/or bug fixes to be loaded on the device, including applications and system software); and 4) fault management (such as reporting errors from the device, querying about status of device). The device management generally takes place by communication between a server (which is managing the device) and the client (the device being managed). OMA DM is designed to support and utilize any number of data transports such as a) physically over both wireline (e.g., USB, RS-232) and wireless media (e.g., GSM, CDMA, Infrared, BlueTooth), and b) transport layers implemented over any of WSP (WAP), HTTP or OBEX or similar transports. The communication protocol is generally a request-response protocol. Authentication and challenge of authentication may be incorporated to ensure the server and client are communicating after proper validation. The communication may be initiated by the OMA DM server, asynchronously, using any of a variety of methods available such as, by way of example, a WAP Push or SMS. Once the communication is established between the server and client, a sequence of messages may be exchanged to complete a given device management task. OMA DM provides for alerts, which are messages that may occur out of sequence, and may be initiated by either server or client. Such alerts may be used to handle errors, abnormal terminations, etc.

[0047] Using OMA DM or another suitable protocol, the control client functionality discussed above can be installed on a mobile device. For example, a mobile device without the control client functionality can be provisioned and configured as follows. In a preliminary step, an administrator may create a management instance of the mobile device with a minimal configuration. The mobile device 104, in some implementations, may not be allowed access (or

at least full access) to the enterprise's internal network, except for device registration and provisioning with the device management system 102. Suitable identifying information may include a device identifier, a user name, and the like. A user of the mobile device may then be directed to connect to the device management system 102 using, for example, a dial up connection, or a data connection with a WAP browser. The device management system 102, acting as an OMA DM server, may then interrogate the mobile device to learn one or more attributes (such as model number, serial number, operating system type and version, etc.), and provision and configure the mobile device. When the mobile device has been configured, the device management system 102 may further use the configuration and other information related to the mobile device to complete installation of a control agent on the mobile device and remove it from quarantine.

<u>User Portal and Application Store</u>

[0048] Users can access a web portal of device management system 102 and access information regarding one or more mobile devices. In one implementation, device management system 102 includes a web or HTML/HTTP-based interface that provides various page views to users associated with mobile devices 104. Each user may be associated with a user profile object, which is a data object maintained in one or more data stores that includes various attributes of a user. In one implementation, the user profile data may be maintained in a Lightweight Directory Access Protocol (LDAP) directory. In one implementation, a user profile object may contain user identifying information such as full legal name, username (for login access to various systems), email address information, domain components (dc), telephone numbers, office locations, organizational information (such as department or group identifiers of an enterprise, reporting structure information, job title, etc.), authentication information, and mobile device profile information (or pointers to device profile data objects). A given user profile data object can include mobile device profile information for more than one mobile device 104. Such mobile device information may include model identifiers, operating system and version, mobile device telephone number, serial numbers, MAC addresses, and specifications (e.g., storage capacity, display size, and the like). In addition, group or department objects can be configured to define one or more attributes that are common to a group or department within an enterprise, such as an engineering or sales department (enterprise-wide or

regionally). Furthermore, some groups can be linked as sub-groups to other larger group designations. A user profile data object can be linked to one or more of these groups (either directly or by inheritance). For example, a salesperson may be linked to a "West Coast Sales Team Group," which is a sub-group of a "Sales Division" of a given enterprise.

[0049] As discussed above, device management system 102 may maintain or access mobile device profile data objects for corresponding mobile devices 104 that have been registered. Mobile device profile information may include the make and model of the mobile device, an identifier of the operating system and version installed on the mobile device, serial numbers, and Media Access Control (MAC) address (or other unique identifiers associated with one or more communications interfaces of the mobile device). Mobile device profile information may also include pointers to log data received from a control client 308 installed on a mobile device 104. Mobile device profile information may further include an image of the file system maintained on the mobile device 104, such as all applications and application files stored on the mobile device 104. This information may be made available to both users and network administrators for various purposes.

[0050] Figure 5 illustrates an example graphical user interface 500 that mobile device management system 102 may provide to a user after the user logs in. If the user accesses the portal through a mobile device, device management system 102 may provide only one screen component at a time. If a user accesses the portal using a personal computer, device management system may present more categories of relevant information in one screen to the user. Device management system 102 may identify a particular user during a login process, where the user provides a name and password. In other implementations, the user may be identified in connection with a digital certificate, a mobile device identifier, or any other suitable identifying information. In one implementation, device management system 102 may access user profile data to identify one or more mobile device profile data objects associated with the user profile data object to present the user with views of various information on the user's mobile device. If the user is associated with more than one mobile device, the portal interface 500 may include tabs (not shown) to allow the user to view information relevant to each of the user's mobile devices. The user can download or upload or share the data from the web portal. Apart from accessing the data, the user can also perform some functionality like locking the mobile device, locating the device (if GPS enabled) and wiping the data in case of the device being lost.

[0051] As Figure 5 illustrates, the portal interface 500 may include an applications section 502 that lists the applications currently installed on the mobile device 104 of the user. In addition, the applications section 502 may include a Manage Applications button that, which activated, provides the user with various interface controls to manage the applications installed on the use's mobile device 104. Figure 6 illustrates an application management interface 600 that allows a user to manage the applications for a mobile device 104. Application management interface 600 includes an Enterprise App Store tab 602 and an Apps On My Phone tab 604. When a user selects tab 604, the application management interface 600 displays a list of applications currently installed on the user's mobile device 104. Furthermore, an application management application can also be hosted on the mobile device 104 itself.

[0052] When the user selects tab 602, a list of available applications from an application catalog are presented to the user. As discussed in more detail below, a network admin may group applications in the application catalog into custom categories (e.g., IT, Sales, Productivity, Utilities, etc.). A user may view the applications grouped into various categories by clicking on Categories tab 608. To install an application on a mobile device, a user may click on an icon for the desired application and confirm the selection. Mobile device management system 102, responsive to the inputs, may schedule the selected application for installation on the corresponding mobile device 104. In one implementation, state information (such as "pending install") may be displayed to the user. Mobile device management system 102 may add the application and installation information (e.g., target mobile device, etc.) to an application install queue. A separate process hosted by mobile device management system 102 may cause control client 308 installed on the mobile device to download and install the selected application. Mobile device management system 102 may use other functionality and protocols, such as OMA, to install the application on mobile device 104.

[0053] As described herein, the applications displayed to any given user are controlled by application of one or more policies that may consider a variety of factors. These factors may include the identity of the user, the role or job title of the user, the group/department (or subgroup) of the user, the mobile device type and operating system, and the like. Figure 7 provides a process flow for returning a list of applications from a catalog that are available to a particular user. In the implementation shown, a process or function hosted on device management system 102 accesses user and mobile device profile information as relevant for one or more policies to

be applied (702). The process hosted on device management system 102 applies one or more policies to filter the list of available applications from the catalog (704) and returns a list of available applications for display in application management interface 600 (706).

[0054] The policies that are applied to filter the applications in the catalog of applications can vary by primary attribute. For example, a first set of policies can filter the application catalog to filter the applications such that only applications that are appropriate for the mobile devices hardware and/or operating system (including version) are provided. For example, if the mobile device of the user includes the Symbian(r) operating system, only applications in the catalog that run on the Symbian operating system remain after this filter step. Other policies can be based on enterprise organizational information. For example, some applications can be restricted to users based on job title, department, division, or separately configured ad hoc groups. For example, a network administrator may restrict or publish a newly developed, internal application to the West Coast sales team of an enterprise. The policies that a network administrator may configure allow for the appropriate applications to be surfaced to the right users for installation on their respective mobile devices. In addition, as discussed below, device management system 102 also allows network administrators to push application installs to mobile devices 104. In addition, policies can also be configured to identify applications by category and configure policies with respect to a user or group of users. For example, a network administrator can allow access to an entire category of applications relevant to a job function (e.g., sales or engineering) to one user or set of users. Policies can be scripted based on a set of predefined data variables and other parameters maintained by device management system 102. Other policies can be configured to consider attributes of the user (e.g., identity, job function, group/division/organization), and whether the mobile device is a personally-owned or enterpriseowned device. In addition, policies can also be configured to the security level of phone (encrypted vs non-encrypted, personal vs company owned, etc). For example, a policy could be configured to filter out applications requiring a phone with encryption capabilities and/or a company-owned device if the device associated with the user does not meet these criteria. As a configuration example, a network administrator may configure policies based on user identity and device configuration that limit the publication of sensitive applications to only devices and users with the highest levels of trust within a given enterprise.

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Network Administrator - Application Management Functions

[0055] Figure 8 illustrates an application management interface 800 that device management system 102 presents to a network administrator. Device management system 102 allows network administrators to perform one or more of the following tasks: Displaying Statistics for an Application; Adding Applications to the Catalog; Editing Application Catalog Entries; Removing Applications from the Catalog; Publishing Applications; Assigning or Unassigning Categories in the Application Catalog; Push-Installing Applications; Distributing Applications; Uninstalling Applications; Revoking Application Permissions, and Blacklisting/Whitelisting Applications.

[0056] In particular embodiments, device management system 102 designates one or more group designations for the particular mobile device 104. By way of example, device management system may present a user interface to an IT manager or administrator enabling the manager to enter designation information for each of a plurality of mobile devices. Device management system 102 then designates the one or more group designations with the mobile device by storing or otherwise associating the group designations with the device object within the database. By way of example, an IT manager may designate a particular mobile device 104 as being either personally owned or enterprise (company) owned. As another example, the IT manager may designate the mobile device 104 as being registered with an employee of a particular enterprise department (e.g., sales, marketing, research and development, management, human resources, accounting, etc.). As another example, the IT manager may designate the mobile device 104 as being registered with an employee of a particular class (e.g., management, staff, intern, new hire, etc.). As yet another example, a mobile device 104 may be designated based on the type (e.g., smartphone versus non-smartphone) or manufacturer (e.g., blackberry, apple) of the mobile device 104. In some embodiments, some or all of the group designations may be designated and stored automatically by device management system 102 based on mined information already stored in the database or other location.

[0057] Device management system 102 determines one or more data logging policies for each mobile device based on the group designations associated with each particular mobile device. By way of example, an enterprise manager or administrator may dictate particular policies and enter these policies into device management system 102. Afterwards, when group designations are matched to a particular mobile device 104, device management system may

then, using the policies entered by the manager, automatically determine data logging policies for the mobile device 104. The data logging policies govern which data is logged (e.g., tracked and/or uploaded) from a particular mobile device to device management system 102. By way of example, a particular device object may be associated with one or more data logging policies stored within the database. Device management system 102 selectively logs (e.g., tracks and/or stores) data from the mobile devices 104 of the enterprise based on the data logging policies associated with each particular mobile device.

[0058]In particular embodiments, the database within or connected with device management system 102 stores resources associated with the mobile devices 104. By way of example, each resource may store a particular file, or generally a data structure, as well as corresponding metadata. Each mobile device 104 also stores (e.g., within memory 306) a number of resources each storing a file or data structure and corresponding metadata. In particular embodiments, when control client 308 determines that a particular file or other data structure (hereinafter referred to as "file") has been newly stored, updated, or otherwise modified within mobile device 104, control client 308 creates a hash for the particular file and causes mobile device 104 to transmit the hash to device management system 102. Upon receipt of the hash, device management system 102 determines if the particular file corresponding to the hash (and the file in the mobile device 104) is already stored in one of the resources stored within device management system 102. In particular embodiments, if device management system 102 determines that the resource already exists, the device management system 102 creates a new resource link to the resource and stores or otherwise associates the new resource link with the device object corresponding to the mobile device 104.

[0059]Device management system 102 includes application catalog and tracking functionality that manages applications registered with the device management system 102, as well as applications detected on mobile devices 104 that are managed by the device management system 102. Applications managed by device management system 102 have "Catalog" listed in the Source column. Applications detected on managed mobile devices 104 have "External" listed in the Source column. The Application Catalog screen shows the following information for each application: 1) Application Name - An identifier for the application; 2) Category - A manuallyassigned category for the application; 3) Platform Name - The platform(s) intended for the application; 4) # Phones - The number of managed mobile devices 104 on which the application is installed; 5) Source - whether the application is managed by device management system 102 or an external application installed after factory defaults were applied; and 6) Watchlist - Displays status if installation or de-installation is pending, but not executed.

[0060] Figure 9 illustrates an application management interface 900 when a network administrator has selected an application--here, Quickpoint, an external application detected by device management system 102 based on log data transmitted by a control client 308 installed on a mobile device. The network administrator may click on the menu items to view additional information under each category. For example, the following summarizes the information that may be provided: 1) Usage - Displays statistics concerning usage of the application (such as a list of all mobile devices 104 that have the application installed); 2) Push-Install - Displays the devices that received this application as the result of an install task issued from the device management system 102; 3) Publish - Displays the labels and devices for which the application has been published, that is, made available for download from the enterprise application store (see above); 4) Watchlist - Displays status if installation or de-installation is pending, but not executed; 5) Details - Displays the application information included in the application catalog entry.

[0061] Application management interface 800 also allows network administrators to add applications to be managed by device management system 102. For example, a network administrator may click on the "Add New" button 802, causing device management system 102 to present a new application interface 1000 as illustrated in Figure 10. Adding an application to the catalog makes it available for installing on managed mobile devices 104 or publishing in the application store. The following summarizes the various input fields of new application interface:

- Name A field for a descriptive name of the application.
- Version A version number for this application.
- Description An explanation of the purpose of this application.
- Platform In this field, a network administrator selects the device platform (e.g., BlackBerry, Symbian, Android, iPhone, Windows Mobile, etc.) for which this application is intended. The platform selected determines which of the following fields appear in the rest of the dialog. In one implementation, the field includes a pull-down menu of platform identifiers.

- OS And Version An entry indicating the names and versions of the operating system this application is compatible with.
- Upload Installation File An entry for the installation file that should be downloaded to selected mobile devices. The selected file will be uploaded and stored on device management system 102.
- External application store ID for external consumer application catalogs, like Apple's App Store, an entry for the application ID associated with the application in that external storefront.
- External application link a link to an installation page for applications that resides outside the enterprise (e.g. salesforce.com).
- Application Logo A field for the location of the logo image that should be downloaded for this application.
- Category In this field, a network administrator may select one or more categories to
 apply to the application. A network administrator may also create an additional category
 by clicking a Add New button under the categories list. A category is a classification that
 may be applied to both managed and external applications. The category that a network
 administrator assigns an application affects its display in the User Portal. Ad discussed
 above, users can browse different categories and sources to install managed applications
 without administrator intervention.
- Push-install to Labels In this field, a network administrator may select labels to specify which groups of managed mobile devices 104 should have the application downloaded and installed automatically. A label refers to a tag or category associated with a managed mobile device or group of managed mobile devices, such as a mobile device platform identifier, an operating system and version, a hardware model, and the like. Label membership can be dictated by enterprise policy as well--for example, a "Trusted" label for highly secure devices and trusted users.
- Search Devices In this field, a network administrator may enter the phone number or user ID to find managed mobile devices 104 on which the network administrator may desire to install this application.
- Push-install to Devices In this field, a network administrator may install this application on the selected managed mobile devices 104.

- Publish to Labels In this field, a network administrator may select labels to specify
 which groups of managed mobile devices 104 should have the application available in the
 enterprise application store.
- Search Devices In this field, a network administrator may enter the phone number or user ID to find managed mobile devices 104 to which the admin may want to make this application available via the enterprise application store.
- Publish to Devices In this field, a network administrator may make this application available to the selected managed mobile devices 104 via the enterprise application store. Applications can be published to either labels (i.e. groups) or individual devices, as well.

[0062] In addition, the application management interface 800 may also allow a network administrator to designate an application as "required" or "recommended" for a user or set of users. In one implementation, mobile device management system 102 may push required applications to the mobile devices of the users for whom it is a required application. In such implementations, the control client 208 installed on the mobile device 104 may install the required application. In other implementations, the user may be notified that one or more required applications are ready for installation. Notifications may be made via email and/or text message. Mobile device management system 102 may also transmit further reminders to the user if it does not detect the application as being installed during its detection of installed applications on one or more mobile devices 104, as discussed below. Still further, the mobile device 104 may include an enterprise application store application that includes a required applications tab. A user may navigate to this tab to check for new applications or updates to existing applications that should be installed on the mobile device 104.

Network Access Control

[0063] As discussed above, device management system 102 may operate in connection with control clients 308 to discover the applications installed on managed mobile devices 104, as well as other state or configuration information related to the mobile devices 104. Users may install applications on their respective managed mobile devices 104 via an enterprise application store 122 or independently by accessing (via a browser or special purpose client) a web site directly on the mobile device for example or accessing a consumer application store external to the enterprise (e.g. Apple's App Store or Google's Android Market). A control client 308 may

detect application installs and transmit notifications of such events to device management system 102. In other implementations, control client 308 may transmit log data from which application installs on one or more managed mobile devices 104 may be detected. In other implementations, control client 308 may periodically generate a list of applications installed on a management mobile device 104 and transmit the list to device management system 102. With some mobile platforms, control client 308 may obtain a list of installed applications using published APIs supported by the operating systems of the managed mobile devices 104. Device management system 102 may therefore identify which applications have been installed on the managed mobile devices 104, including whether required applications (and upgrades thereto) have been installed. More generally, a control client 308 may also monitor for events and/or log data that is relevant to a security profile of a managed mobile device 104. For example, control client 308 can be configured to report on Subscriber Identity Module (SIM) card changes on the managed mobile device 104. Control client 308 may also report on large file uploads to a memory card or a remote host, changes to the operating system files or behavior, excessive or uncharacteristic out-of-network roaming, or other activities that may be relevant to a security profile.

[0064]The control client 308 and/or the device management system 102 can also be configured to monitor for or detect a variety of other security or device state information (referred to as "posture profiles"). For example, the control client 308 can be configured to transmit state information and event-related data to device management system on a periodic or as-needed basis. Device management system 102 may analyze this data to detect one or more device state changes. For example, as discussed above, control client 308 may transmit notifications of when new applications are installed, or periodically transmit a list of all installed or newly installed applications. Control client 308 may also query the mobile device 104 for various configuration information, such as device identifiers, operating system type and version, SIM card identification information. The mobile device management system 102 can compare this information to a database of device configuration information to determine whether any changes have occurred (e.g., a SIM card change) that, for example, might indicate a security issue. Device management system 102 may also analyze data provided by control client 308 to determine whether a mobile device 104 has been compromised at the operating system level, such as being jailbroken or rooted. In some implementations, control client 308 can be configured to periodically attempt to perform one o more operations or access certain functions

that, under an uncompromised operating system, would not be accessible. If one or more of these operations are accessible, the control client 308 can notify mobile device management system 102. Device management system 102 may also determine from the device configuration whether certain functions are enabled or disabled, such as encryption/data protection functions and whether cryptographic keys and digital certificates are installed. Device management system 104 may also determine from the device configuration whether the policy configuration of the mobile device 104 is up-to-date, such as minimum acceptable password attributes and the like. Device management system 102 may also examine log or event related data to determine whether the mobile device 104 was recently in contact or whether there has been no connection within a period of time. Device management system 102 may also examine log or event related data to identify unusual activity, such as travel, volume of data transfer or calls, web sites visited or other indications of a potential security issue or heightened security risk.

[0065] Managed mobile devices 104 can be configured to access various enterprise network services that are hosted by or on behalf of an enterprise. For example, with reference to Figure 1, a given enterprise may include a Microsoft Exchange Server 112 with Exchange ActiveSync functionality. Microsoft Exchange, however, is identified merely for purposes of illustration. Any enterprise e-mail, communication and/or collaboration services can be used in the enterprise networks. Other enterprise network services may include connectivity services, such as Virtual Private Networking (VPN) and WiFi access. Managed mobile devices 104 may also access application server 114 directly or through SSL/VPN/Firewall gateway 120. Managed mobile devices 104 may also host applications that are configured to access systems external to the enterprise network 110. Various differences between mobile devices and other computing systems (such as personal computers and laptops) present challenges to network administrators relative to network security. Users of managed mobile devices 104, for example, typically have much more control over the ability to install applications--even unauthorized applications--either by access sites directly or though remote application stores. In addition, mobile devices 104 communicate over network paths and channels, such as carrier networks, that an enterprise has little to no control of. Accordingly, a network administrator may not simply block a switch port to which a host raising security concerns is connected or to deny access to certain remote hosts. Still further, mobile devices have a variety of sensor devices, such as Bluetooth interfaces, GPS modules, cameras, and microphones, that malicious applications may exploit in order to gather

data about users.

[0066]As discussed herein, mobile device management system 102 may analyze the security-related information described above and set one or more security state indications in a posture-based profile of respective mobile devices that are operative to control access to an enterprise network entirely or specific enterprise applications. The posture-based profile is accessible to one or more network applications via a set of application programming interfaces, that allow for configuration of flexible, posture-based decisions. For example, the mobile device management system 102 may determine and set one or more bits or other parameter values in a security table that indicates whether a mobile device 104 has a blacklisted application, whether a SIM card has been changed, whether a device has been jailbroken or rooted, whether excessive roaming has been detected, whether a mobile device lacks a required application or fails to have updated policies installed, as well as other factors discussed above. One or more network application services can query this security state table when making admission control decisions when a mobile device 104 attempts to access a given service. Blocking access represents one of the possible actions that could be triggered in connection with analyzing the posture-based profile. Other examples include locking the mobile device, wiping the mobile device, and transmitting user notifications. The posture-based profile may include for example indications of whether unauthorized applications are installed, or whether the security policies configured on a given mobile phone are up-to-date. A network administrator may then create a number of policies that flexibly adapt to such situations, as described herein. For example, if the operating system integrity of a mobile phone is compromised, a network admin may desire to initiate a wipe action. If the security configurations of the mobile phone are out of date, a network admin may not fell that this condition is critical enough to initiate a wipe action. Accordingly, a policy can be configured to trigger an access control block action. As an additional example, a policy can be configured to transmit warning notifications to the user and the network administrator, if an unauthorized application is detected on a mobile phone.

[0067] In a particular implementation, for example, mobile device management system 102 may include functionality that allows network administrators to blacklist or otherwise identify select applications and configure policies that are triggered in response to detection of their installation on one or more managed mobile devices 104. Figure 11 illustrates an example process that may be implemented by device management system 102. The process illustrated in

Figure 11 may be initiated in response to individual events or may be iteratively applied on a periodic basis to a set of events stored in a queue. As Figure 11 illustrates, device management system 102 may receive an indication of an event that a new application has been installed on a managed mobile device 104 (1102). The event may be generated by a control client 308 that transmits an event notification to mobile device management system 102. The event may be generated by mobile device management system 102 when it detects a new application in a list of applications provided by the control client 308. Device management system 102 then applies one or more policies to the application install event (1104). Device management system 102 can be configured to apply a wide variety of policies. In one implementation, at least one policy may determine whether the newly installed application has been placed on a blacklist. In other implementations, another policy may be configured to determine whether the newly installed application is a recognized or generally known application, or an unknown application or potential virus. A network administrator can configure policies to respond to application install events in a variety of manners. For example, for a first set of applications that are unauthorized, but do not present security issues, mobile device management system 102 may be configured to transmit a notification or warning to the user of the managed mobile device 104 that the application is unauthorized (1106) and, therefore, will not be supported by the enterprise's information technology (IT) department. Another policy can be configured to cause the mobile device management system 102 to transmit a wipe command to the control client 308 hosted on the managed mobile device 104 (1110), which causes the entire storage device to be erased. In other implementations, a partial wipe may be implemented to delete a selected subset of the files stored in the mobile device 104. This policy can be configured if a known virus or other malicious application is detected. Another policy type can be cause the control client 308 resident on the mobile device 104 to lock down one or more of the input/output devices of the mobile device 104. Other policies can be configured to push new policy configurations to the mobile device, such as an updated password policy.

[0068] Some policies can also be configured to block access to the services provided by enterprise network 110. For example, as discussed above, a managed mobile device 104 accesses enterprise network systems (e.g., email servers, SSL/VPN Servers, and other applications) for a wide variety of functions. Mobile device management system 102 can be configured to signal the security state of a managed mobile device 104 to these enterprise

services, which may then admit or deny access to the managed mobile device 104. In one implementation, mobile device management system 102 may be configured to set one or more security profile values in a data object, such as a security state table, associated with the mobile device 104. These values can be distilled down to one Boolean value, such as an accept or admit (True/False) value. An enterprise application may be configured to access this parameter value when deciding whether to accept or reject the requests or other messages of the mobile device 104. For example, an enterprise application service may be configured to inspect one or more profile values, such as unauthorized applications, disabled encryption mechanisms, SIM card changes, jailbroken indicators and the like, in order to decide whether to admit or reject the mobile device 104. In other implementations, the mobile device management system 102 may transmit blacklists or white lists to various enterprise applications. These lists can be consulted by an exchange server 112, an SSL/VPN gateway 120, an internal web site, a document or file system, and/or an application server 114, for example, when deciding whether to accept or reject the requests or other messages of the mobile device 104. As a further example, a web sockets proxy or firewall can be configured to consult a security state table to determine the current security state of a mobile device and filter traffic associated with mobile devices 104 that do not meet a required security profile. In other implementations, the web sockets proxy/firewall can be configured to permit traffic that identifies ports corresponding to certain, authorized applications, while blocking all other traffic. In this manner, a network administrator may control access to enterprise network services and maintain security, while allowing the mobile device 104 to operate with applications that access systems or hosts external to the enterprise network 110, such as calling functions, and third party applications. Other implementations are possible. For example, mobile device management system 102 may maintain a variety of attribute values for a managed mobile device 104. A given application can be configured via a set of APIs to access one to a combination of these attributes when deciding to accept/reject access to a mobile device 104, as discussed above.

[0069] In some implementations, mobile device management system 102 may include a component that that interacts with an ActiveSync/Exchange server 112 to provide the following functionality: 1) gives enterprise admins visibility into all devices attempting to connect to corporate email; 2) allows automatic permit/deny functions; and 3) provides remote wipe capabilities for mobile devices 104. This functionality can be provided by directly integrating

one or more code modules with an ActiveSync/Exchange server 112. For example, a plug-in or other code module can be hosted on ActiveSync/Exchange server 112. The module may be configured to transmit information on mobile devices 104 accessing the server. In other implementations, mobile device management system 102 may be configured in a stand alone mode as an intermediate system (e.g., such as a proxy) in the communications path between ActiveSync/Exchange server 112 and mobile devices 104. The component can be configured to query the ActiveSync/Exchange server 112 for information identifying the mobile devices that are accessing it. In other implementations, the proxy component may be configured to provide mobile device information to the mobile device management system 102. Figure 12 illustrates a user interface that lists the detected mobile devices that access ActiveSync/Exchange server 112. A network administrator may also configure one or more ActiveSync policies to specify the Exchange ActiveSync (EAS) policies to apply to selected mobile devices that use ActiveSync to connect to the ActiveSync/Exchange server 112.

[0070] In addition, using the mobile device management system 102, a network administrator may specify whether to enable various functions available via ActiveSync or generally, such as text messaging, email access, and browser access. The component may also determine whether the mobile devices 104 that access the ActiveSync/Exchange server 112 are registered with the mobile device management server 102. Various policies can be configured to accept/reject access based on this determination. For example, one policy can block ActiveSync connections to unregistered mobile devices 104. Another policy can be executed to start a registration workflow for an unregistered mobile device.

Local Control of Applications

[0071] In some implementations, in addition to access control mechanisms discussed above, mobile device management system 102 can operate in connection with control clients 308 installed on managed mobile devices 104 to block an application from launching. Figure 13 illustrates an example application management interface 1300 that allows a network administrator to configure one or more policies that block selected applications from launching one select managed mobile devices 104. The following summarizes the fields provided by application management interface 1300:

- Name (1302) A field to enter a descriptive name for the policy. This is the text that will be displayed to identify this policy.
- Description (1304) A field to enter an explanation of the purpose of this policy.
- Block Applications from Launching (1306) Using this control, a network administrator may select which applications should be blacklisted--that is, prevented from being started. The applications appearing
- in the Available list, in one embodiment, are those that were installed after factory defaults were loaded.
- Block ROM Applications from Launching (1308) For certain Windows Mobile
 platforms (such as WM 6.1), a network administrator may select one or more ROM
 applications as being blacklisted. Solitaire.exe is an example of a ROM application that
 an admin may want to block. A network admin can also click the Add New button to
 specify other ROM applications to add to the list.
- Apply to Labels (1310) Using this control, a network admin may associate this policy
 with the selected labels that are used to define ad hoc groups of mobile devices, such as
 "All iPhones," and the like.
- Search Devices (1312) In this field, a network admin may enter the phone number or user ID to find selected mobile devices to which the admin may want to apply the policy. Search results appear in results field 1314, the entries to which a network admin may select for application of the policy.

[0072] After a network administrator has configured a blacklist policy for an application and activated it, the mobile device management system 102 may deploy the policy. In one implementation, depending on what methods the admin has used to identify the mobile devices (e.g., labels, specific phones, etc.), the mobile device management system 102 identifies the managed mobile devices 104 to which the policy applies. Mobile device management system 102 then transmits a new policy configuration to the respective control clients 308 installed on the mobile devices. In one implementation, the new policy configuration can be an updated blacklist of applications that are to be prevented from launching. Since the control client 308 includes control points at the MMI and file system layers, it can monitor for commands to launch executables and prevent commands identifying blacklisted applications from being launched.

The foregoing blacklisting policy enforcement mechanism can be used in lieu of or in addition to the network blacklisting functionality described above.

[0073] The present disclosure encompasses all changes, substitutions, variations, alterations, and modifications to the example embodiments described herein that a person having ordinary skill in the art would comprehend. Similarly, where appropriate, the appended claims encompass all changes, substitutions, variations, alterations, and modifications to the example embodiments described herein that a person having ordinary skill in the art would comprehend.

CLAIMS

What is claimed is:

1. A method, comprising:

responsive to a request for a set of applications available for installation on a mobile device, accessing a user profile and a mobile device profile against an identifier associated with a user;

filtering a catalog of applications based on a set of policies applied to the user profile and mobile device profile to select a set of applications; and

returning the set of applications in response to the request.

2. The method of claim 1 further comprising:

accessing a user directory store to retrieve the user profile.

3. The method of claim 1 wherein the user profile comprises one or more of a role, job title or enterprise group identifier, and wherein one or more of the policies in the set of policies considers at least one of the role, job title and enterprise group identifiers.

4. The method of claim 1 further comprising:

identifying required applications in the set of applications; and providing an indication of the required applications to the user.

- 5. The method of claim 1 wherein the mobile device profile comprises one or more a model identifier, an operating system identifier, a serial number, and a Media Access Control (MAC) address.
- 6. The method of claim 1 wherein the identifier is a mobile device identifier.
- 7. The method of claim 1 wherein the identifier is a user identifier.
- 8. An apparatus, comprising:

a memory;

a network interface;

one or more processors; and

computer program code stored on a non-transitory storage medium comprising instructions operative to cause the one or more processors to:

responsive to a request for a set of applications available for installation on a mobile device, access a user profile and a mobile device profile against an identifier associated with a user;

filter a catalog of applications based on a set of policies applied to the user profile and mobile device profile to select a set of applications; and

return the set of applications in response to the request.

9. The apparatus of claim 8 wherein the computer program code further comprises instructions operative to cause the one or more processors to:

access a user directory store to retrieve the user profile.

- 10. The apparatus of claim 8 wherein the user profile comprises one or more of a role, job title or enterprise group identifier, and wherein one or more of the policies in the set of policies considers at least one of the role, job title and enterprise group identifiers.
- 11. The apparatus of claim 8 wherein the computer program code further comprises instructions operative to cause the one or more processors to:

identify required applications in the set of applications; and provide an indication of the required applications to the user.

- 12. The apparatus of claim 8 wherein the mobile device profile comprises one or more a model identifier, an operating system identifier, a serial number, and a Media Access Control (MAC) address.
- 13. The apparatus of claim 8 wherein the identifier is a mobile device identifier.

- 14. The apparatus of claim 8 wherein the identifier is a user identifier.
- 15. A non-transitory storage medium comprising computer program code including computerreadable instructions operative, when executed, to cause one or more processors to:

responsive to a request for a set of applications available for installation on a mobile device, access a user profile and a mobile device profile against an identifier associated with a user;

filter a catalog of applications based on a set of policies applied to the user profile and mobile device profile to select a set of applications; and

return the set of applications in response to the request.

16. The non-transitory storage medium of claim 15 wherein the computer program code further comprises instructions operative to cause the one or more processors to:

access a user directory store to retrieve the user profile.

- 17. The non-transitory storage medium of claim 15 wherein the user profile comprises one or more of a role, job title or enterprise group identifier, and wherein one or more of the policies in the set of policies considers at least one of the role, job title and enterprise group identifiers.
- 18. The non-transitory storage medium of claim 15 wherein the computer program code further comprises instructions operative to cause the one or more processors to:

identify required applications in the set of applications; and provide an indication of the required applications to the user.

- 19. The non-transitory storage medium of claim 15 wherein the mobile device profile comprises one or more a model identifier, an operating system identifier, a serial number, and a Media Access Control (MAC) address.
- 20. The non-transitory storage medium of claim 15 wherein the identifier is a mobile device identifier.

ABSTRACT OF THE DISCLOSURE

[0074] In particular implementations, a mobile device management system allows network administrators to control the distribution and publication of applications to mobile device users in an enterprise network.

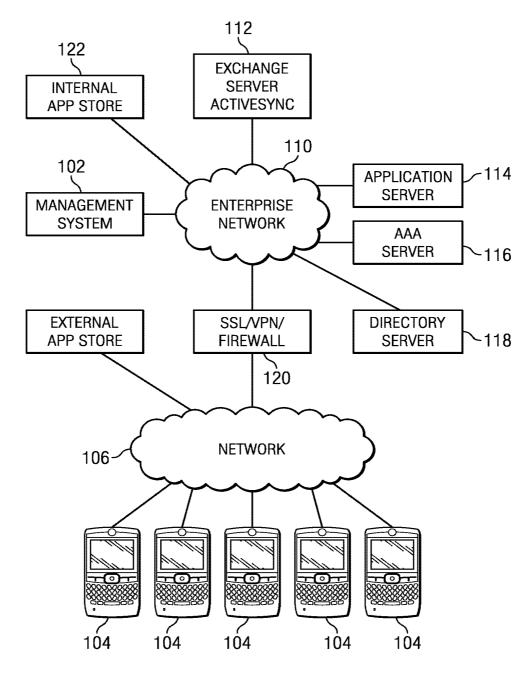


FIG. 1

2/11

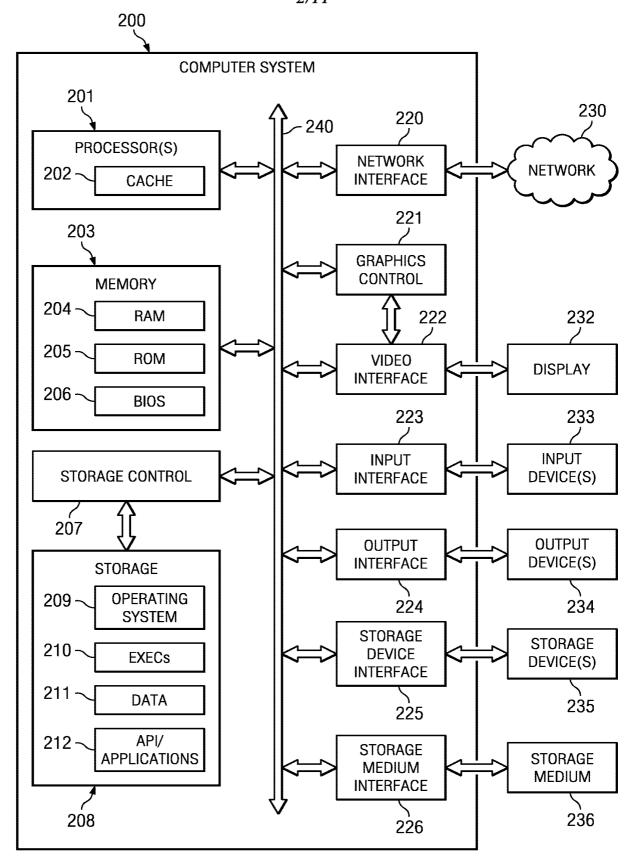
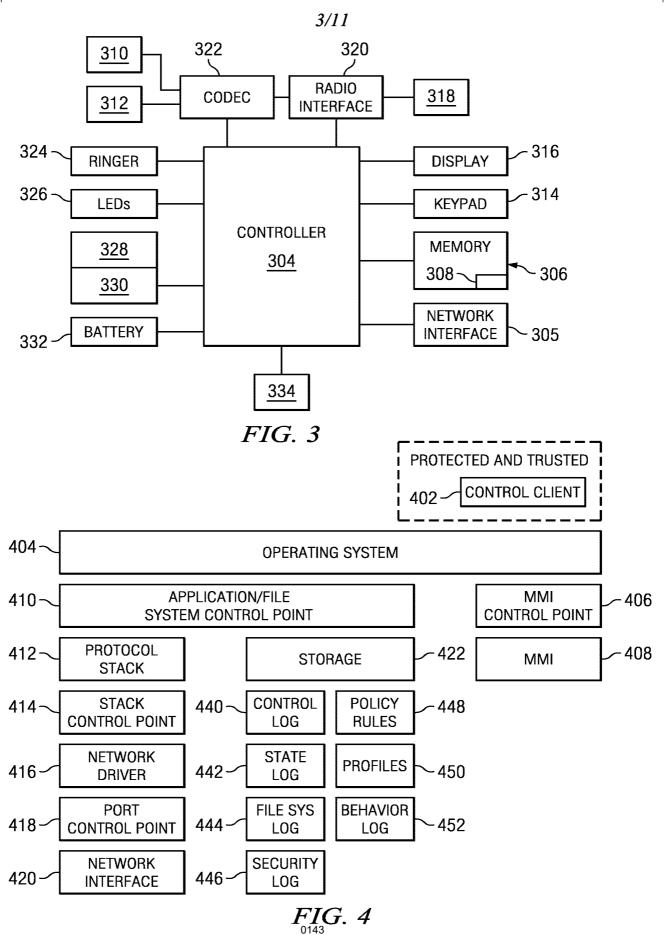


FIG. 2



4/11

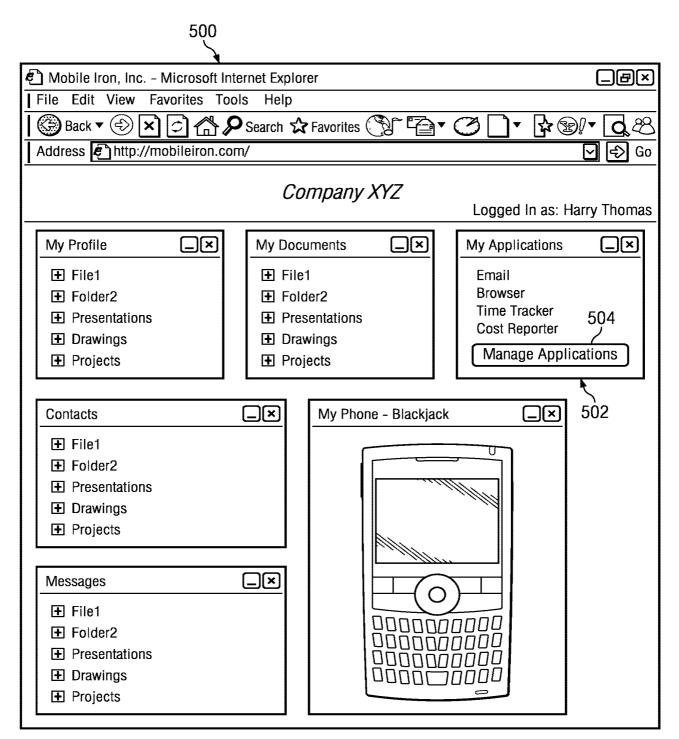


FIG. 5

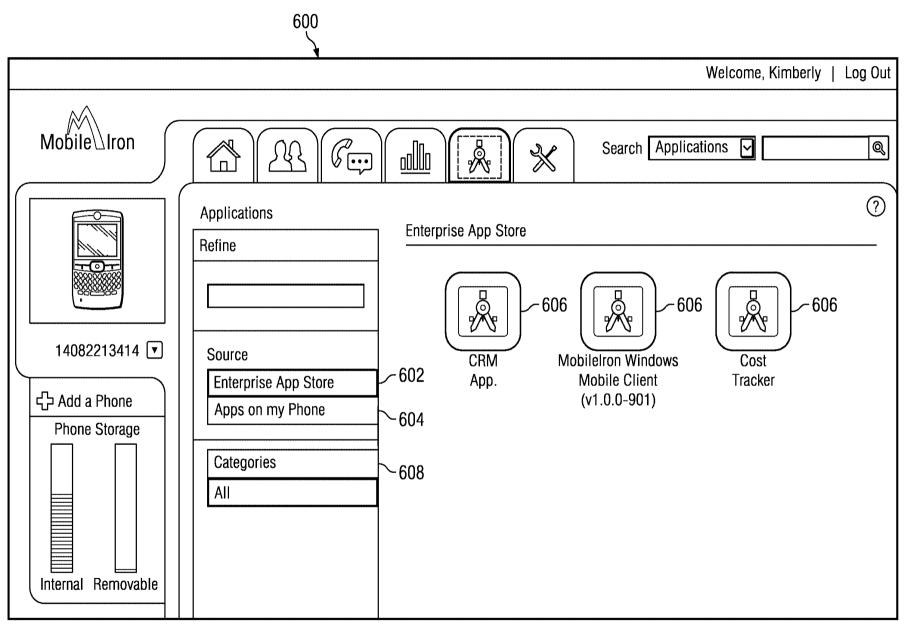
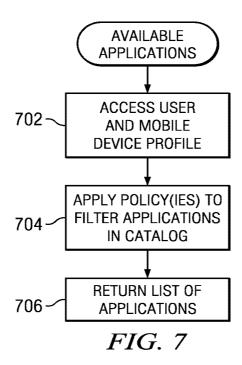
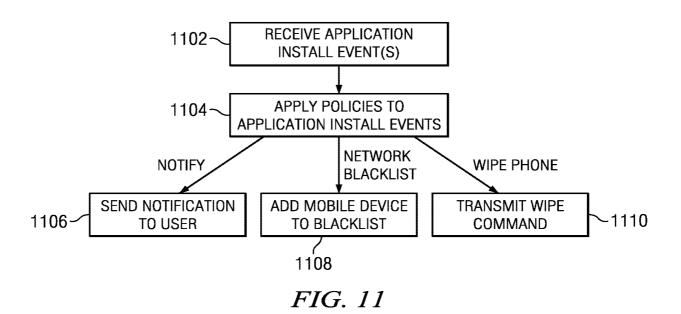


FIG. 6





										
(Smart	phones & Users Mobile Activity	y Intelligen	ce Security & Policies Apps & Files	Troubles	nooting	Eve	nt Center	Settings	Log
	Appli	cation Catalog Application Se	ttings Fil	e Management						
<u>_</u>										
	Appli	cation Catalog(1.3.2-3.0.0-2	3)							
	De	lete Add New \ More Act	tions ▽	Labels All-Smartphones 🗹 Se	arch by App	. Q				
		Application Name \(^802\)	Category	Platform Name	# Phones	Source		Applicati	on Details	Edit
		Mobilelron BlackBerry Client (v		BlackBerry	0	Catalog	Αİ			
		Mobilelron Symbian Client (v3		Symbian 9.1, Symbian 9.5, Symbian 9.4,	0	Catalog				
		Mobilelron Symbian Client (v3		Symbian 9.1, Symbian 9.5, Symbian 9.4,	0	Catalog				
		YahoolM		iPhone 2.2, iPhone, iPhone 3.1, iPhone 3.	0	Catalog				
		Mobilelron BlackBerry Client (v		BlackBerry	0	Catalog				
		MobileIron Windows Mobile Cli		Windows Mobile 6.0 Professional, Windo	1	Catalog				
		Mobilelron Symbian Client (v3		Symbian 9.1, Symbian 9.5, Symbian 9.4,	0	Catalog				em to
		Quicksheet			1	External		Vi	ew details	
		Microsoft My Phone			1	External				
		Quickpoint			1	External				
Kinoma FreePlay		Kinoma FreePlay			1	External				
		Quickoffice			1	External				
Application Catalog (1.3.2-3.0.0-23) Delete Add New More Actions v Labels All—Smortphones Search by App. Q										
Application Catalog Application Settings File Management Application Catalog(1.3.2-3.0.0-23)										

FIG. 8

Smartphones & Users Mobile Activity Intellige	nce Security & Policies Apps & Files	Troubleshooting	Event Center Settings Log						
	ile Management		Etonic conton Commigs Log						
Application Catalog(1.3.2-3.0.0-23)									
Delete Add New More Actions ▼ Labels All—Smartphones									
Application Name Category	Platform Name	# Phones Source	External Application Edit						
MobileIron BlackBerry Client (v	BlackBerry	0 Catalog	Quickpoint						
MobileIron Symbian Client (v3	Symbian 9.1, Symbian 9.5, Symbian 9.4,	0 Catalog	- Created at						
MobileIron Symbian Client (v3	Symbian 9.1, Symbian 9.5, Symbian 9.4,	0 Catalog	2010-05-29 1:11:34 PM						
☐ YahoolM	iPhone 2.2, iPhone, iPhone 3.1, iPhone 3.	0 Catalog							
MobileIron BlackBerry Client (v	BlackBerry	0 Catalog							
MobileIron Windows Mobile Cli	Windows Mobile 6.0 Professional, Windo	1 Catalog	► Usage See All						
MobileIron Symbian Client (v3	Symbian 9.1, Symbian 9.5, Symbian 9.4,	0 Catalog	- 						
Quicksheet		1 External	► Publish						
Microsoft My Phone		1 External	-						
✓ Quickpoint		1 External							
Kinoma FreePlay		1 External	► Details						
Quickoffice		1 External							
<		[>	□						
		1 - 20 of 4	11						
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FIG. 9

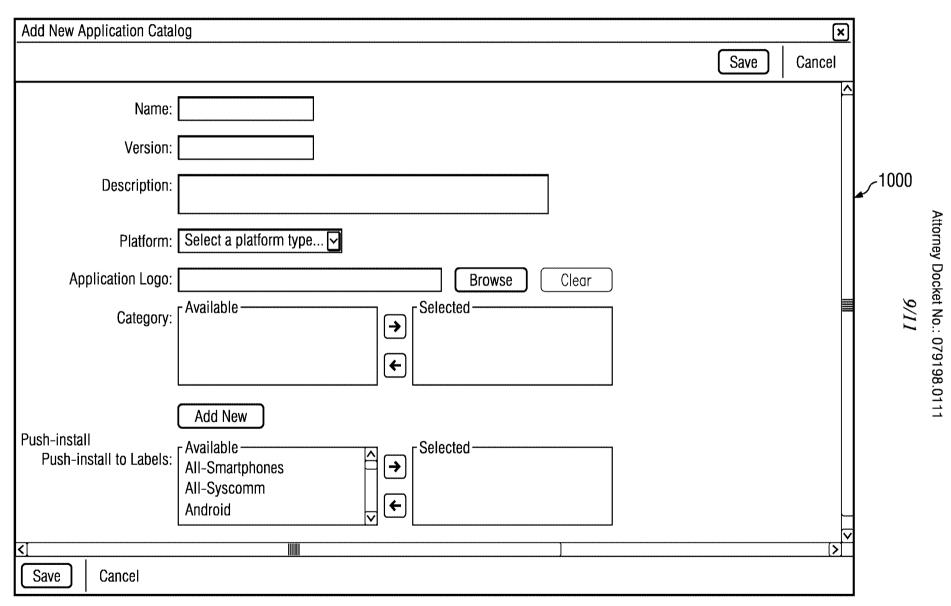


FIG. 10

ľ	√ Mobi	Smartphones System Velcome, miadmin Log Out About Help								
	Smart	phones & U	sers Mo	obile Activity I	ntelligence	Security & Poli	cies Apps & Files	Event Center Tr	oubleshooting	Settings Log
	Dasht	ooard Al	Smartpho	nes Activ	eSync Smart	tphones Reti	ired Smartphones	Manage Labels		
	ActiveSync Smartphones									
	Bloc	k Allow	Wipe R	emove Regi	ster Show [Search User	Search by User @]	Show Device Details 🔲
		User ▲	Number	Phone	0S	Mobilelron St	ActiveSync Status	First Sync Time	Mailbox ID	ActiveSync Details
		Jeff a. B		HTC-P4600	WinMo	Unregistered	Allowed	2010-03-22 2:43:0	jbisby	
		Jeff a. B		Palm	Palm	Unregistered	Allowed	2010-03-25 3:20:5	jbisby	
		Jesse Lin		Android	Not Availabl	Unregistered	Blocked	2009-12-11 4:30:5	jlinton	
		Joe Mont		iPhone	iPhone	Unregistered	Allowed	2010-03-23 9:28:2	jmontague	
		Manuel R		iPhone	iPhone	Unregistered	Allowed	2010-01-06 11:24:	mreynolds	
		Manuel R		iPhone	iPhone	Unregistered	Allowed	2010-03-23 10:12:	mreynolds	Please select an item to view details
		Sean Gin	PDA	iPhone	iPhone	Registered	Allowed	2009-12-08 1:36:5	sginston	to view details

FIG. 12

FIG. 13

Electronic Patent A	Application Fee	Transmit	tal			
Application Number:						
Filing Date:						
Title of Invention:	Management of Mobi	e Applications				
First Named Inventor/Applicant Name:	Jesse Wagner LINDEMAN					
Filer:	Mark James Spolyar/Paula Hurley					
Attorney Docket Number: 079198.0111						
Filed as Large Entity						
Utility under 35 USC 111(a) Filing Fees						
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)		
Basic Filing:	·	·				
Utility application filing	1011	1	330	330		
Utility Search Fee	1111	1	540	540		
Utility Examination Fee	1311	1	220	220		
Pages:						
Claims:						
Miscellaneous-Filing:						
Petition:						
Patent-Appeals-and-Interference:	0152					

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
	Tot	al in USD	(\$)	1090

Electronic Ack	knowledgement Receipt
EFS ID:	8882373
Application Number:	12950933
International Application Number:	
Confirmation Number:	8729
Title of Invention:	Management of Mobile Applications
First Named Inventor/Applicant Name:	Jesse Wagner LINDEMAN
Customer Number:	05073
Filer:	Mark James Spolyar/Paula Hurley
Filer Authorized By:	Mark James Spolyar
Attorney Docket Number:	079198.0111
Receipt Date:	19-NOV-2010
Filing Date:	
Time Stamp:	20:08:44
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1090
RAM confirmation Number	6205
Deposit Account	020384
Authorized User	

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

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Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

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Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)	
1	Application Data Sheet	ADS_079198_0111.pdf	1031202	no	4	
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Warnings:						
Information:						
2		Application_079198_0111.pdf	187373	yes	35	
-		,,,pp.iica.ioii_0/3130_0111.pai	3aee01f165b77e9f853a8cf21600d5e332f3 0003	yes	33	
	Multip	oart Description/PDF files in .	zip description			
	Document De	scription	Start	E	nd	
	Specificat	ion	1	3	31	
	Claims		32	34		
	Abstrac	t	35	3	35	
Warnings:			,			
Information:						
3	Drawings-only black and white line	Figures_079198_0111.pdf	1613337	no	11	
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Information:						
4	Fee Worksheet (PTO-875)	fee-info.pdf	32836	no	2	
·			9b4a7f9b450e00c389c50980d11c49a8594 93528			
Warnings:						
Information:						
		Total Files Size (in bytes)	28	64748		

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Electronic Ack	knowledgement Receipt
EFS ID:	8882373
Application Number:	12950933
International Application Number:	
Confirmation Number:	8729
Title of Invention:	Management of Mobile Applications
First Named Inventor/Applicant Name:	Jesse Wagner LINDEMAN
Customer Number:	05073
Filer:	Mark James Spolyar/Paula Hurley
Filer Authorized By:	Mark James Spolyar
Attorney Docket Number:	079198.0111
Receipt Date:	19-NOV-2010
Filing Date:	
Time Stamp:	20:08:44
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Deposit Account
Payment was successfully received in RAM	\$1090
RAM confirmation Number	6205
Deposit Account	020384
Authorized User	

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Charge any Additional Fees required under 37 C.F.R. Section 1.19 (Document supply fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.20 (Post Issuance fees)

Charge any Additional Fees required under 37 C.F.R. Section 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)	
1	Application Data Sheet	ADS_079198_0111.pdf	1031202	no	4	
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Information:						
2		Application_079198_0111.pdf	187373	yes	35	
2		Application_0/9/90_0111.pdf	3aee01f165b77e9f853a8cf21600d5e332f3 0003	yes	33	
	Multip	oart Description/PDF files in .	zip description			
	Document De	scription	Start	E	nd	
	Specificat	ion	1	;	31	
	Claims		32	34		
	Abstrac	:t	35	35		
Warnings:						
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Information:						
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Information:						
		Total Files Size (in bytes)	28	64748		

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