

Sheraton Milwaukee Brookfield Hotel Milwaukee, WI August 24-26, 2011



Going Mobile with Notes and Domino

Session: IA103

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About Amy Hoerle

- 1st "real" job was as an AS/400 administrator in 1997
- Worked on IBM Lotus Domino support team for 12 ½ years
- Specializing in Lotus products on IBM i & Windows since 1999
 - Installing, configuring, tuning, debugging and troubleshooting
- DAOS expert
- XPages development
- Author of numerous technotes, articles and the recently published "Optimizing Domino Administration" IBM Redbooks Wiki
- Blog
 - www.bleedyellow.com/blogs/ilotusdomino
- Twitter
 - iLotusDomino



About Kim Greene

- Owner of Kim Greene Consulting, Inc.
- Extensive iSeries background
- Services offered include:
 - System and application performance optimization
 - Administration
 - Upgrades
 - Troubleshooting
 - Health, performance, security, etc. checks
 - Migrations
 - Enterprise integration
- Technical writer & editor for Systems Magazine, System i Edition
- Blog
 - www.bleedyellow.com/blogs/dominodiva
- Twitter
 - iSeriesDomino



Agenda

- Why mobile matters
- Analyzing the data
- Devices
- Data access options
- An overview of the Traveler installation process
- Setting device security
- Configuring the device
- Managing the Traveler server
- Customer examples
- References



Why Mobile Matters

In the past ...

Only a few devices supported

Today and tomorrow ...

Many device platforms & form factors (Smartphones, tablets, etc.

Communication focused devices

Social and collaboration focused devices

Phone, mail, calendar, contacts, chat, SMS

Social collaboration, meetings, VoIP, video

Enterprise owned & controlled devices

"Bring your own device" – enterprise controls management & security policies



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Mobile Data Needs

What do your users want/need mobile access to?

- Mail
- Calendar
- To Dos
- Contacts
- Company Address Book
- Secondary Address Book
- Domino Applications



Are you on Mobile Overload?

Sprint Android iPad Wella Browser Apple AT&T **iPhone** tablets BlackBerry Server Verizon iOS BlackBerry Windows Mobile **Lotus Traveler** Google T-Mobile



Getting the Data

Data that can be synchronized

- Mail
- Contacts
- Calendar
- Notebook entries (Windows Mobile & Nokia)

Data accessed from the server

- Company Directory
- Secondary Directories (requires directory assistance configured on the Traveler server)



Planning

Create a Mobile Policy

- Company devices or BYOD
- Agree to secure devices
- Agree to remote wipe
- Anti-virus

Plan for termination

Removing data from device when terminated



Server Requirements

Domino Server (32 or 64 bit) running on

- Windows 2003 or 2008
- Red Hat Linux
- SUSE Linux

Minimum Additional Hardware Requirements

- 500MB Disk
- 512MB RAM



Server Requirements

Network Connectivity

- DMZ placement recommended
- Requires high speed network
- Port 80/443 must be available or open on the firewall

Licensing

- Included in Notes Messaging CAL and Enterprise CAL
- Requires a Lotus Domino Server License



Domino Preparations

Domino requirements:

- Register an additional server
- Domino Directory using 8.5.2 template version
- Users must have an internet address and password specified in their person document
- Review existing DA configuration
 - Will DA need to be configured on Traveler server for authentication or directory lookups?
- Review existing mail server Security
 - New Traveler server must be able to access mail server
 - New Traveler server must have manager + delete access to mail files



Security Planning

Decisions to make...

- Require VPN into network to access or use SSL connection?
- Use a self-signed certificate or purchase a 3rd party certificate?
- Which users will be allowed to access?
- Device password requirements?

Basics | Preferences | Assignment | Sync | Filter Settings | Device Settings | Security Settings | Windows Mobile | Nokia | Apple | Android | Device Security | Violation Action | Require device password | Enforce | Prohibit camera | Enforce | Prohibit devices incapable of security enablement | Enforce | Enforce | Profice | Enforce | Enforce | Prohibit devices incapable of security enablement | Enforce | Enforce | Profice | Enforce |



- Install Operating System / Prepare Server
- Add host name to DNS
- Download the Required Code:
 - Domino 8.5.2
 - Domino 8.5.2 Fix Pack 3
 - Traveler 8.5.2
 - Traveler 8.5.2 Fix Pack 3 IF1
 - Traveler Hotfix 20110810_1307

https://www-304.ibm.com/support/docview.wss?uid=swg24019529



Install Domino

Install Domino 8.5.2 & 8.5.2 FP3 IF1 fixpack

Configure Domino Server

- Verify server starts properly
- Configure Directory Assistance (if required)
- Create required connection documents for replication
- Configure SSL (if required)
- Configure session authentication (Single or multi-server)
- Test HTTP connectivity



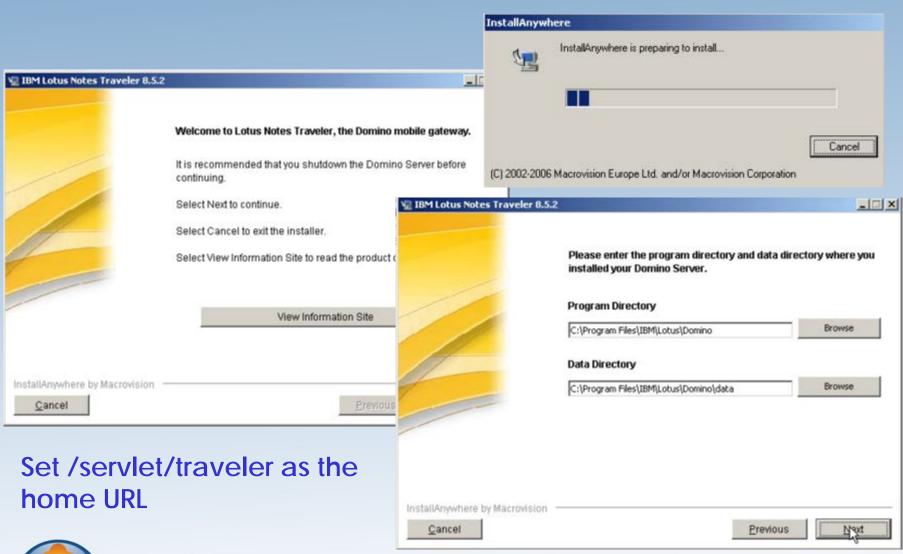
Install Traveler

- End the Domino Server
- Install Traveler 8.5.2
- Install Traveler 8.5.2 Fix Pack 3
- Install Traveler hotfix

Warning: Read the readme (this is not a wizard)



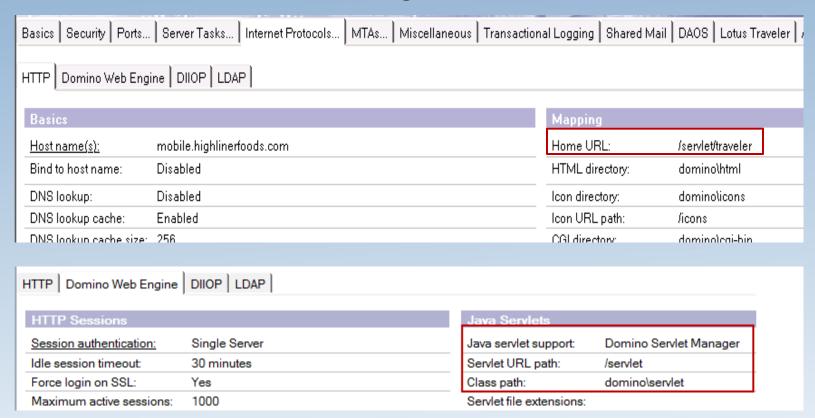
Installing Traveler



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Installing Traveler

Traveler data and server changes



servlets.properties file automatically updated via the install



Starting the Server:

HTTP Server: Using Web Configuration View
JVM: Java Virtual Machine initialized.
HTTP Server: Java Virtual Machine loaded
Lotus Traveler: Server starting...
HTTP Server: DSAPI Domino Off-Line Services HTTP extension
Loaded successfully
Servlet engine initialization was successful
HTTP JVM: com.lotus.sync.servlet.TravelerServlet: init
HTTP JVM: Traveler 8.5.2.3 Build 201107280608
Starting replication with server MyServer/KimGreene
Pulling customers.nsf from MyServer/KimGreene customers.nsf
Lotus Traveler: Server started.



Basics Security Ports Server Tasks Inte	ernet Protocols MTAs Miscellaneous Transactiona	Logging S	hared Mail DAOS Lotus Traveler		
Basics					
Maximum Memory Size:	512 MB				
IPC Socket Ports:	50125 50126				
External Server URL:	https://traveler.kimgreene.com/servlet/traveler				
Lotus Traveler Access					
ccess server: users listed in all trusted directories		Sei	rver Document		
Not access server:	Terminations	Ch	Changes		
Remote user commands:	Disabled		langes		
User managed security:	Enabled				
		1.	Set External		
Log Settings					
Logging Level:	Informational		URL		
Obsolete as of Domino 8.5.2	Off				
SyncML Logging:		[—] 2.	Define user		
	ackage Log Filter: *		Define user		
Maximum File Size:	50 MB		access		
Maximum Number of Activity Log Files:	10				
Fields Logged - Privacy:	Subject; Location; Address; Phone Number				
		_			
Auto Sync Settings					
Monitor Polling Interval:	3 seconds				
Port for TCP Connections:	8642				
Heartbeat Algorithm:	Indefinite Detection				



Setting Device Security

Configure device security:

- Open Domino Administrator
- Messaging → Mail Tab
- IBM Lotus Traveler → Device Settings

Note: Only 1 default document for the Traveler server

Prohibit devices incapable of security enablement

Basics Preferences Assignment
Sync Filter Settings Device Settings Security Settings
Windows Mobile Nokia Apple Android
Device Security
Require device password
Storage card encryption

Lotus Traveler Device Settings : Default

asics Preferences Assignment	
Sync Filter Settings Device Settin	gs Security Settings
Mail Filters:	
Email Body Truncation:	✓ Enabled 『5K』
Maximum Email Attachment Size Allowed - Administrator	[™] 4000 _□ KB
Email Attachments:	☐ Enabled
Email Attachment Size:	「100』 ▼ KB
Email Date Filter:	✓ Enabled 「5 Days」▼
Email Importance:	☐ High Importance Only
Other Filters	
Calendar Date Filter:	
Past Events:	▼ Enabled 『1 Week』▼
Future Events:	▼ Enabled 『3 Months』▼
Journal Date Filter:	▼ Enabled 『1 Week』
ToDo Status:	✓ Incomplete Status Only



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Violation Action

Report Report

Enforce

Restricting Device Types by customizing NTSConfig.xml

- AS_PROTOCOL_VERSIONS: specifies the ActiveSync Protocol versions that the server supports (choices are 2.5, 12.0, 12.1).
 - For example, to prohibit Apple 2.x devices specify
 <PROPERTY NAME="AS_PROTOCOL_VERSIONS" VALUE= "12.0,12.1"/>
- AS_PROVISION_EXEMPT_USER_AGENT_REGEX: devices that are exempt from using the ActiveSync Provision command
 - Provision command required to enforce security and allow remote wipe (Default is that none are exempt)
- ALLOWED_USER_AGENT_REGEX: The User-Agent HTTP headers that are allowed to sync data
 - For example, to allow only Apple and Android specify:

<PROPERTY NAME="ALLOWED_USER_AGENT_REGEX" VALUE=" (Lotus Traveler Android) | (Apple)"/>

http://www-10.lotus.com/ldd/dominowiki.nsf/dx/Restricting_access_by_device_category_LNT8521



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Set Exceptions via Traveler Policy

Basics Preferences Comments	Administration				
Sync Filter Settings Device Settings Security Settings					
Mail Filters:		How to apply this setting:	Inherit from parent policy:	Enforce in child policies:	
Email Body Truncation:	☑ Enabled 5K	Don't set value	▼	☐ Enforce	
Maximum Email Attachment Size Allowed - Administrator	4000 KB	☐ Don't set value	☐ Inherit	Enforce	
Email Attachments:	☐ Enabled	Don't set value	☐ Inherit	☐ Enforce	
Email Attachment Size:	100 KB	Don't set value	☐ Inherit	☐ Enforce	
Email Date Filter:	▼ Enabled 1 Week	Don't set value	☐ Inherit	☐ Enforce	
Email Importance:	☐ High Importance Only	Don't set value	☐ Inherit	☐ Enforce	
Other Filters		How to apply this setting:	Inherit from parent policy:	Enforce in child policies:	
Calendar Date Filter:					
Past Events:	▼ Enabled 1 Week	Don't set value	☐ Inherit	☐ Enforce	
Future Events:	▼ Enabled 3 Months	Don't set value	☐ Inherit	☐ Enforce	
Journal Date Filter:	▼ Enabled 1 Week	Don't set value	☐ Inherit	☐ Enforce	
ToDo Status:	✓ Incomplete Status Only	Don't set value	☐ Inherit	Enforce	



Check device settings if prior to 8.5.2

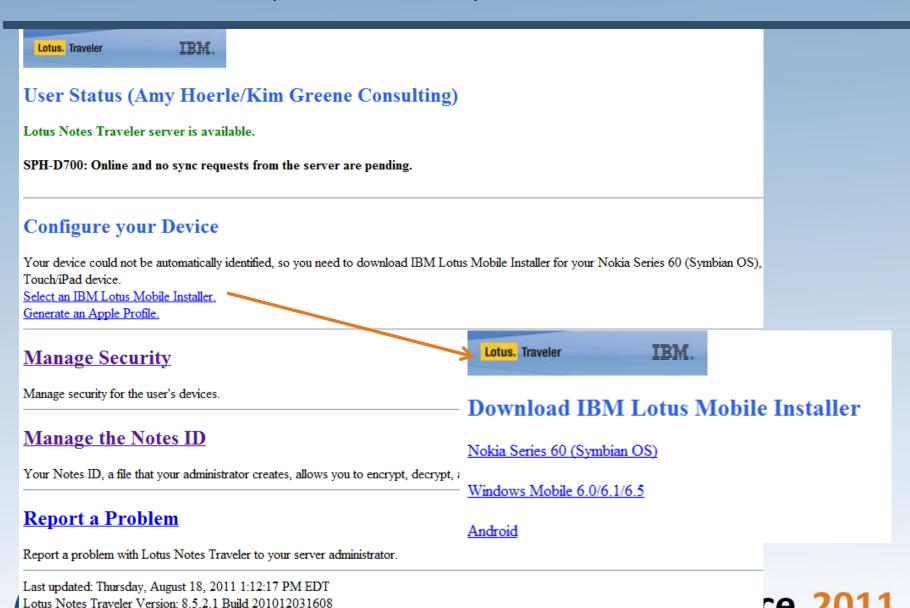
Lotus Traveler Settings : Lotus Traveler Server Settings

Sync Filter Settings Device Settings Security Settings Logging Settings Device Logging: Off	How to apply this setting: Don't set value		Enforce in child policies:
		parent policy:	
Device Logging:	Don't set value		
	2 311 1 311 1 311 1		□ Enforce
Maximum Device Log File	Don't set value	▼ ☐ Inherit	☐ Enforce
Advanced Settings The following settings are obsolete as of Domino 8.5.2. They are used for compatibility with prior versions only:			
Auto Sync Network: TCP Network	Don't set value		□ Enforce
Low Battery Threshold: 20 percent	Don't set value	▼ □ Inherit	□ Enforce



The Traveler Servlet (From a browser)

Refresh



User Security Options



Manage Security (Amy Hoerle/Kim Greene Consulting)

Device: SPH-D700 (Android_57a7a27d46bdaf84)

Status

No security actions are pending.

Request Security Action

Wipe Device and Storage Card - Resets the device to the factory default state (erases everything on the device), erases e Wipe Application and Storage Card - Erases all Lotus Notes Traveler client software and data from the device, erases e Wipe Device - Resets the device to the factory default state (erases everything on the device) and prevents the device from Wipe Application - Erases all Lotus Notes Traveler client software and data from the device and prevents the device from Wipe Storage Card - Erases everything on the storage card and prevents the device from synchronizing with the server.

Deny Access - Prevents the device from synchronizing with the server.

Last updated: Thursday, August 18, 2011 1:14:22 PM EDT Lotus Notes Traveler Version: 8.5.2.1 Build 201012031608 (mail.sga.com) Refresh

Lotus Notes Traveler User Home Page



Configuring the Device / Installing Traveler

Tip: Upgrade the firmware of the device before you start

Installing on an Apple Device:

http://www-10.lotus.com/ldd/dominowiki.nsf/dx/ Demo_Installing_Lotus_Notes_Traveler_on_Apple_devices

Installing on an Android Device:

http://www-10.lotus.com/ldd/dominowiki.nsf/dx/ Video_Installing_IBM_Lotus_Notes_Traveler_on_your_Android_device

Installing on a Windows Mobile Device:

http://www-10.lotus.com/ldd/dominowiki.nsf/dx/ installing-lotus-notes-traveler-on-a-windows-mobile-device

Installing on a Nokia Device:

http://www.youtube.com/watch?v=YQnpmZHzn5k



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Managing the Traveler Server: Phase 4

- Invoking Traveler command help
 - tell traveler help
- Starting the Traveler server
 - Load traveler
- Stopping the Lotus Traveler server
 - tell traveler shutdown
 - Waits for any pending syncs to complete
 - tell traveler quit
 - Ends immediately
- Restarting the Traveler server
 - restart task traveler



Managing the Traveler Server: Phase 4

- View information for a specific user
 - Tell traveler show firstname lastname
- Display users currently synchronizing with the server
 - tell traveler showActive
- Show number and list of registered users
 - tell traveler showUsers
- Show Lotus Traveler server statistics
 - Tell traveler stat show
- Display status of all users and devices
 - tell traveler security allstatus



Examples

tell traveler show HTC Thunderbolt

Lotus Traveler has validated that it can access the database mail/hthunder.nsf.

Encrypting, decrypting and signing messages are enabled because the Notes ID is in the mail file or the ID vault.

Canonical Name: CN=HTC Thunderbolt/O=KGCI Internet Address: HThunderbolt@kimgreene.com

Mail Server (Home): CN=Mail1/O=KGCI

Mail File (Home): mail/hthunder.nsf

Mail Server (Current): CN=Mail1/O=KGCI Release 8.5.2FP1

Mail File (Current): mail/hthunder.nsf

Mail File Replicas: [CN=Mail1/O=KGCI, mail/hthunder.nsf]

Notes ID: Mail File does not contain the Notes ID.

Auto Sync User State: Online

Last Prime Synchronization: Wednesday, August 17, 2011 1:55:58 PM EDT

Banned Documents: 0

Devices:

Device ID: Android_d3d8f5322bd41ab8

Device Description: DROID X2:2.3.3:1.0.0.1



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Managing the Traveler Server: Phase 4

- Deleting a Traveler user
 - tell traveler delete * username
 - Tell traveler security delete * username

Lotus Traveler	User Name ◊	User State ♦	Mail Server 🗘	Mail File
	Apple iPad/	Online		mail/aipad.nsf
Device Security	htc droid/	Offline		mail/hdroid.nsf
Device Settings	HTC	Online		MAIL/hthunder.nsf
Devices	Thunderbolt			
Users		Online		mail/ <u>i</u>
O3CI3				

Note: Do not delete documents directly from the traveler database (LotusTraveler.nsf).

Note: Users automatically removed after 30 days without a sync request.



Traveler Performance

Memory

NSF_BUFFER_POOL_SIZE_MB=256

Threads

HTTP threads = # of devices X 1.2

Authentication

- Enable session authentication
 - Prevents authentication for every device to server communication
 - Could cause install problems on the device

www-10.lotus.com/ldd/dominowiki.nsf/dx/Lotus_Notes_Traveler_and_Domino_Session_Authentication

www-10.lotus.com/ldd/dominowiki.nsf/dx/Tuning_performance_of_the_server_LNT8521



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Customer Story - Hyatt Hotel

- "Mobilizing hotel staff with iPad lets them get out from behind the desk and in front of the guests."
 - John Prusnick, Directory of IT Innovation & Strategy
- "You can write up notes during a meeting, automatically make a PDF, and email it. In our office, iPad has already become part and parcel of the way we do business".
 - John Wallis, Global Head, Marketing & Brand Strategy
- "Hyatt is confident that our deployment of iPad meets security requirements. It's fast, It's secure, and its' easy to use".
 - John Prusnick, Director of IT Innovation & Strategy



Customer Story – General Motors

Challenge:

 Employees needing to take technology and use to their advantage without being tied to the desktop

Solution:

Lotus Traveler





References

Lotus Notes Traveler Product Page

http://www.ibm.com/software/lotus/products/notes/traveler.html

Lotus Notes Traveler Support site

https://www-304.ibm.com/support/docview.wss?uid=swg24019529

Lotus Notes Traveler Wiki

 http://www-10.lotus.com/ldd/dominowiki.nsf/xpViewCategories.xsp?lookupNa me=Lotus%20Notes%20Traveler%208.5.2%20Documentation

Restricting access by device category

 http://www-10.lotus.com/ldd/dominowiki.nsf/dx/Restricting_access_by_device_ category_LNT8521



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References

Lotus Traveler console commands

http://publib.boulder.ibm.com/infocenter/domhelp/v8r0/index.jsp?topic=/com.ibm.help.lnt851.doc/Administering_IBM_Lotus_Notes_Traveler_Server.html

Planning device security

 http://www-10.lotus.com/ldd/dominowiki.nsf/dx/Planning_for_security_LNT8521



Thank You!

Questions?





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