

TeleNav Settings for RIM BlackBerry Enterprise Server

Original: March 28, 2007 Revision 1: May 30, 2007 Revision 2: July 15, 2007 Revision 3: October 10, 2007 (revised statement on allowing 3rd party downloads) Revision 4: November 20, 2007 (added technique for white-listing TeleNav) Revision 5: August 1, 2008 (updated network hunting order, changed references from v12 to v24 of the reference, and added v24 features such as IDLE_TIMER control) Prepared by TeleNav Engineering Revisions by TeleNav Customer Care

Reference: BlackBerry Enterprise Server Policy Reference Guide Version 24 (or later)

Objective

This document is intended to provide guidance to BES administrators who are involved in the management of BlackBerries that host TeleNav GPS Navigator. Many modern BlackBerries include a GPS receiver. However, most older models beginning with a seven (except 7100i) and the 8700 and 8707 require an external Bluetooth-linked GPS receiver.

Other IT Policy Rules apply for the management of telephony and network access.

We suggest following the discussion in the Reference Guide in parallel to reading the following to make sure that the policies you establish are appropriate for your enterprise. Those policy groups that are relevant to the use of TeleNav, or sound like they could be, are discussed in the following subsections.

Notice

TeleNav, Inc. is not responsible for any errors or omissions your enterprise makes in applying the BES policies.

TeleNav's Network Usage Priority

On GPRS or EDGE networks, TeleNav GPS Navigator prefers to use BlackBerry Internet Services (BIS) over BlackBerry Enterprise Server (BES) Mobile Data Services (MDS). If neither is available, TeleNav will use TCP/IP via a carrier Access Point. TeleNav's servers maintain a list of Access Point Names (APNs), but the user may have to enter a new/different APN if the carrier gateway is abruptly changed. For GPS Telcel, no TCP path is open. On CDMA networks, TeleNav GPS Navigator prefers to use TCP since the APN is part of the RIM handheld code, and does not need to be user managed.

Configuring BES Policies for use with TeleNav

Reference: BlackBerry Enterprise Server Policy Reference Guide Version 24 (or later). This guide is available from www.blackberry.com.

Location Based Services policy group, page 56

While TeleNav is a location-based service, this group is not relevant to TeleNav. The default setting of FALSE for "Enable Enterprise Location Tracking" is not relevant for TeleNav.

Bluetooth Policy Group, page 12

The following table addresses only those policies that could have an effect on TeleNav on BlackBerries using an external Bluetooth GPS receiver:

Rule	Setting
Disable Bluetooth	Leave as FALSE so that data from an external
	GPS receiver will be accessible
Disable Discoverable Mode	Not currently relevant, but in future versions of
	TeleNav, this option should be set to TRUE to
	allow TeleNav to "discover" an external
	Bluetooth GPS receiver.
Disable Pairing	Leave as FALSE, or the GPS receiver cannot
	be paired with the BlackBerry.
Disable Serial Port Profile	Leave as FALSE or the data from the GPS
	receiver will not be accessible.
Require encryption	Leave as FALSE or the GPS receiver will not
	be able to pass location data.
Require Password for Enabling Bluetooth	Setting this to TRUE will require the user to
Support	know the password to manage the Bluetooth
	settings. Generally this is best left as FALSE.
Require Password for Discoverable Mode	Passwords on GPS devices are of relatively
	little value due to the type of data being passed
	since if the Bluetooth link is within range, the
	BlackBerry is nearby, but this is not the case
	with other types of peripheral devices.

Browser Policy Group, page 28

Rule	Setting
Allow IBS Browser	Leave as TRUE. However, to suppress BIS
	network access, set to FALSE. TeleNav will
	then try MDS over BES as its preferred
	network connection method, and fail over to
	TCP/IP if MDS is not available.

Device Only Items, page 45

Rule	Setting
Enable long term timeout	Setting this form of security lock will lock down
	the BlackBerry regardless of user activity. The
	user will then need to enter the password to
	restore functionality. TeleNav has no means of
	circumventing this security feature.

Maximum security time out	If this inactivity timer is set to lock the device after a brief period of inactivity, users on long trips may be impacted by having to enter their password. Setting the TeleNav Preferences for Backlight ALWAYS ON should prevent this timer from locking down the BlackBerry.
User can change time out	Users may want to know the maximum security time out so that a device setting is not locking the device more frequently.

Global Items, page 54

Rule	Setting
Allow Browser	This should be set as TRUE to allow over-the-
	air downloads. ¹
Allow Phone	Set to TRUE since setting to FALSE will
	prohibit dialing business or the automatic voice
	recognition system for address input system.

MDS Policy Group, page 56

This rule set is applicable to an BES MDS that is offered to the public at large. This is not applicable to a BES that is inside your corporate firewall, and administered by your IT department.

Rule	Setting
Disable activation with public MDSS	Set to FALSE since setting to TRUE will block access to the public Internet using the BES Mobile Data Services
Disable user-initiated activation with MDSS	Setting to TRUE will block access to the public Internet using the BES Mobile Data Services

Password Policy Group, page 61

Rule	Setting
Periodic challenge time	If this is set to lock the device after a brief period, users on long trips may be impacted by having to enter their password. TeleNav has no means of prohibiting this lock from occurring as scheduled.
Set password time out	If this is set to lock the device after a brief period of inactivity, users on long trips may be impacted by having to enter their password.

Security Policy Group, page 76

Rule	Setting
Allow External Connections	Leave as TRUE or TeleNav will not be able to
	access it servers via the public Internet.
Internal Network Connections	Leave as TRUE or TeleNav will not be able to
	access it servers via the BlackBerry MDS
	connection service.
Allow Resetting of Idle Timer ²	If this policy is FALSE, TeleNav is not able to
	activate the backlight to preclude the inactivity
	timer from locking the device. If this policy is
	TRUE, by setting the Backlight Preference to

¹ Forbidding access to the BlackBerry Internet browser will also block access to the BlackBerry Internet Service (BIS). ² This is a new feature, and may not be present using older BES installations.

	ALWAYS ON, the inactivity timer will not lock the device during Navigation.
Allow Split-Pipe Connections	Earlier versions of TeleNav that employed an external Bluetooth receiver required Split-Pipe connections to be allowed.
Allow Third Party Apps to use Persistent Store	Must be TRUE, or TeleNav will not be able to store graphics and audible files it needs for generating its user experience.
Disallow Third Party Application Downloads	TeleNav is NOT signed by RIM to the level of trust required, so this setting must be set to FALSE while loading from BES, the desktop, or over-the-air. ³ To control the unwanted loading of other applications, this control should be returned to TRUE after TeleNav has been installed.

Service Exclusivity Policy Group, page 102

Rule	Setting
Allow Other Browser Services	Leave as TRUE at least until the application has been loaded over the air. The IBS browser is preferred to carrier-specific services during downloads.

Application Control Policies, page 103

The following table addresses only those policies that could have an effect on TeleNav:

Rule	Setting
External domains	Leave as NULL to allow TeleNav to access its
	servers
Disposition	Leave as OPTIONAL or less restrictive.
Interprocess Communications	ALLOW is mandatory
Internal Network Connections	ALLOW or PROMPT – required for using a
	private BES/MDS for public internet access
External Network Connections	ALLOW or PROMPT – required for using BIS,
	TCP, or a public BES/MDS for public internet
	access
Local Connections	ALLOW
Phone Access	ALLOW or PROMPT – TeleNav does use the
	phone to call businesses, or the automatic
	voice recognition system for address input.
PIM Data Access	ALLOW – TeleNav does register to access the
	PIM, and once TeleNav has registered with the
	BlackBerry, the PIM can be used to launch
	TeleNav
Event Injection	Not required until TeleNav version 5.1.
	TeleNav may use event injection to keep the
	inactivity timer from locking the device.
Bluetooth Serial Profile	ALLOW so that a BlackBerry that needs an
	external GPS receiver can receive data from
	the GPS
Device GPS	On devices with internal GPS receivers, this

³ Prior versions of this guide were incorrect. Although TeleNav is RIM-signed, it is still a third party application.

TeleNav can obtain GPS fixes.

If you have questions, TeleNav Technical Support may be able to offer assistance, but generally interpretation of these policies is the sole responsibility of the BES administrator.

File Size Restrictions

TeleNav requires the BES/MDS to pass large file sizes during its first use. The large files include language and graphical elements used by the application in the chosen spoken language.

- 1. Launch the BlackBerry Manager
- 2. Select the appropriate server name and right-click to edit properties
- 3. Once you are in the "BlackBerry MDS Connection Service" screen, locate the "Flow Control" field in the "General" tab
- 4. Set "Maximum KB/Connection" to at least 400
- 5. Set the "Flow Control Timeout" to: 600000
- 6. Go to the "HTTP" tab and locate the "Connection Timeout" field
- 7. Set the value of "HTTP Device Connection Timeout & HTTP Server Connection Timeout" to: 180000
- 8. Apply accordingly and close "BB MDS Connection Service" Window
- 9. At "Tasks" (under "Edit Properties")- Select "Restart service

BlackBerry MDS Connection Servic	e	×
Properties General Access Control HTTP Proxy LDAP	Server Name Connection to BlackBerry Server Connection to BlackBerry Server Ports Web Server Listen Port Vieb Server SEL Listen Port	BES40_MDS-CS_1 (1 item) 8080
OCSP TLS/HTTPS Push/PAP RSA Authentication Stats	Flow Control Maximum KB/Connection Flow Control Timeout	400
Cogs	Use Persistent Socket Thread Pool Size Maximum Simultaneous Persistent Sockets Database Admin Configuration Cycle Timer	False 200 2000 5
	Maximum KB/Connection The maximum number of kilobytes that ca for each BlackBerry MDS Connection Ser	n be sent to the BlackBerry device
	ок	Cancel Apply

Pushing Applications from the BES

TeleNav provides application loader extension (ALX) and executable (COD) files for distribution by the BES to the different carrier-provided and device models supported by the company IT group. To obtain these files, call TeleNav support at 888-353-6284.

When you setup the BlackBerry Enterprise Server it installs an application called "BlackBerry Handheld Configuration Tool" this is used to send BlackBerry applications to the handheld wirelessly over the air.

NOTE: MDS *must* be enabled for this to work.

ministrator Authority	
Global Servers User Groups List All Users Role Administration Software Configurations	
Configuration Name Description	Source Path
◎ IM+ ◎ 880088	\\bes40\research in motion \\bes40.telenav.com\research in
BlackBerry.	T Common

- Select a computer that you will use to store the BlackBerry applications you want to send out wirelessly. This computer should have the BlackBerry desktop manager installed on it. It will also work on the actual BES server without the desktop manager
- 2. On this computer go to c:\program files\common files\research in motion\
- Create a new folder in this directory and call it "Shared". Within this directory create another folder and call it "applications". In this applications folder you will create a folder for each BlackBerry application you want to send.
- 4. Now download the program you would like to send to the BlackBerry. Most likely this file will be compressed as a zip file. Extract it to a folder within c:\program files\common files\research in motion\shared\applications\

Once you have done this, you will need to re-index the list of programs.

- 5. From the same computer open a command prompt window.
- 6. Go to c:\program files\common files\research in motion\apploader
- 7. In this directory type "loader /reindex"

	🔤 C:\WINDOW	S\system32\cmd.e	же		l X
I	04/18/2007	05:25 PM	389,203	CE.dll	
I	03/08/2007	11:28 AM	9,043	Device.xml	
I	04/18/2007	05:33 PM	4,843,032	Loader.exe	
ļ	04/18/2007	05:33 PM	411,160	LoaderRes1028.dll	
I	04/18/2007	05:33 PM	452,120	LoaderRes1029.dll	
ł	04/18/2007	05:33 PM	464,408	LoaderRes1031.dll	
Ε	04/18/2007	05:33 PM	468,504	LoaderRes1034.dll	
1	04/18/2007	05:33 PM	468,504	LoaderRes1036.dll	
ŀ	04/18/2007	05:33 PM	456,216	LoaderRes1038.dll	
ł	04/18/2007	05:33 PM	464,408	LoaderRes1040.dll	
;	04/18/2007	05:33 PM	427,544	LoaderRes1041.dll	
ł	04/18/2007	05:33 PM	419,352	LoaderRes1042.dll	
ł	04/18/2007	05:33 PM	460,312	LoaderRes1045.dll	
ł	04/18/2007	05:33 PM	460,312	LoaderRes1046.dll	
I	04/18/2007	05:33 PM	456,216	LoaderRes1049.dll	
	04/18/2007	05:33 PM	452,120	LoaderRes1055.dll	
	04/18/2007	05:33 PM	407,064	LoaderRes2052.dll	
	03/08/2007	11:28 HM	1,226,264	MailServerMHPL.dll	
	03/08/2007	11:28 HM	1,672,728	MailServerNotes.dll	
	04/18/2007	05:33 PM	153,112	rimprogram.dll	
	09/13/2004	11:27 HM	47	Vendor.xm1	
4		ZI FILE(S)	14,561,663	7 Dytes	
		2 D1F(S)	144,185,991,10	be bytes free	
•	C:\Program	Files\Common	Files\Research	In Motion\AppLoader>Loader.exe /reindex_	-

Now that we have a program to send out, go to the BlackBerry Enterprise Server and open "BlackBerry Handheld Configuration Tool" (Blackberry enterprise server 4.1 has this included in the main admin console.

- 1. Click on the "Configuration" tab
- 2. Click on "New Configuration"
- 3. Give the configuration a name and description

Configuration Name	Description	Source Path
₩+ ₩ 880066	Device Software Configuration Configuration Name: APP_NAME Configuration Description: Device Software Location:	\\bes40\research in motion \\hes40\telenav.com\research in motion IX ghange
E BlackBerry.	Application No Device Software Share Location X Enter the UNC path to the device software share location. To create a device software share location, install one or more device system software packages on the host computer, and then share the directory %CommonProgramFiles%Filesearch in Motion %CommonProgramFiles%Filesearch in Motion With read-only permissions. Browse Wes40 Idenav com/Research in Motion OK Cancel	Cancel

After selecting the location, the screen will refresh leaving you with "Application Software" Click the + sign next to it and it should reveal the applications you wish to send.

Configuration Name		Description			Source Path		
🧞 ім+ 🗞 880088	Douico Foftware Configuration				\\bes40\rese	earch in motion nav.com\research in motion	
	Configuration Name: A Configuration Description: Device Software Location: W	PP_NAME	In Motion	Change			
	Application Name	Versi	on Delivery				
	Application Software			<none></none>			
	TeleNav	4	<u>Wireline Only</u>	<none></none>			
		5.0.7	Wireline Only	<u>«none»</u>			-
== BlackBerry.	images_services	1.1	Wreine Only	<none></none>		Common	Ð
		Detels., Mo	nege application control	Policies	SKS	Add New Configuration Manage Application Policies	
			ОК	Cancel			

For each application you wish to send check mark the box and change the delivery option to wireless. Click OK to save.

vice Software Configuration				
Configuration <u>N</u> ame: Configuration <u>Description</u> :	APP_NAME			
Device Software <u>L</u> ocation:	Wes40.telenav.com\Re	esearch in Motion	1	<u>C</u> hange
Application Name		Version	Delivery	
Application Software				<none></none>
TeleNav		4	Wireless 💌	<none></none>
<u>M+</u>		5.0.7	Wireline Only	<none></none>
images_services		1.1	Wireline Only	<none></none>
sounds		1.0.1	Wireline Only	<none></none>
TeleNav GPS Navigator for BlackBerry 8800	Details	Manage app policies	olication control	Policies
			ОК	Cancel

Now select the "Handhelds" tab and select the BlackBerry unit you would like the application installed on. With the unit selected, select "Assign Software Configuration" If you are using Version 4.0 or newer, go to your users list and assign the configuration by right-clicking on the username.

Server	Configuration	Users	Users Pending	Delete										
Name			Email addr	ess		PIN								1-
Status		-	IT Policy		-									
	1													
Entries	per page 500		Page 1	/1 Previou	is Next	Search	Clear							
Name	PIN	Status	Last C 🗸	Active	Applic BlackB	BlackB	BlackB	Config	Config	Creati	Direct	Email	Expire	
🖉 Strait,	32C76E0E	Running	11/7/200	Sprint PCS	8830	True	4.2.2.123			8/17/200		Philips@t	0	
🔊 Wong,	401100C4	Running	11/7/200	NEXTEL	7100	True	4.1.0.136			7/17/200	117*140	Shannph	0	
Depez,	20645741	Running	11/7/200	AT&T	8310	True	4.2.2.162			10/8/200		diegol@t	0	_
🔊 Meza,	30158327	Running	11/7/200	Sprint PCS	8703e	True	4.1.0.359			7/17/200		Lindam@	0	
🔊 Farah,	32C9FC6A	Running	11/7/200	Sprint PCS	8830	True	4.2.2.123			9/19/200		sandraf	0	
S Iamkov	40114379	Running	11/7/200	NEXTEL	7100i	True	4.1.0.136			9/6/2007	116*611	sashai@t	0	
S Palmer	3019F4D5	Running	11/7/200	Sprint PCS	8830	True	4.2.2.123			8/24/200		georgep	0	
Betten	3015922C	Running	11/7/200	Sprint PCS	8703e	True	4.1.0.359			9/27/200		billb@tel	0	
Aube.	32B9D1FB	Running	11/7/200	Sprint PCS	8703e	True	4.1.0.384			10/29/20		timh@tel	0	_
Poul	Edit Broportie		11/2/200	Cont t PCS	8830	True	4.2.2.123			7/17/200		Markp@t	0	
Q G00 _	Luic Propertie	75		t PCS	8830	True	4.2.2.123			8/6/2007		jeffg@tel	0	
Maic	Find User			EL	7520	True	4.1.0.380			7/17/200	116*611	Salm@tel	0	
Norr	Add Users				HTC-Kais	er True	4.0.0.86			10/12/20		Mitchn@t	0	
S Tabi	Move User			EL	7520	True	4.1.0.380			7/17/200	117*174	Cesart@	0	
2 Lami	Delete User				8310	True	4.2.2.138			10/4/200		Giacomol	0	
Char	Reload User			t PCS	8830	True	4.2.2.123			10/5/200		scottc2@	0	Ě
	Clear In-Cradle	Flag											1	4
Name	Assign To Group)		Email A	ddress: Markp@telena	v.com								
PIN: 3	Send Message													
-	Assign Device													
=== Bla	Assign Software	e Configuratio	n	0.014						Folt Properties				
24	Export Asset Su	ımmary Data		B PW						Low Troperties				
1000	Update Configu	ration Check S	Status	uice and	l BlackBerry Collabors	tion Service F	nabled: True		Τ	A				
5.1	Decord IT Delig			n: Enabl	led		indbied. Hae		A	Account			G	_
	Assign IT Policy	, ,							ĸ	Find Liver				
1.	Resend Peer-to	-Peer Key							S	Add Laws				
	Resend Service	Book								Add Users				
	Deploy Applicat	ions		dministra	ative Group/cn=Recipient	s/cn=Markp				Move User				
	Set Password a	nd Lock Handt	held							Delete User				
	500 T 0354010 0	a sour ridriul	1014							N Dalaad Llaar				

Select the configuration you want to use and select ok. This will assign the software configuration to the device and will wirelessly install the applications.

elect a software configuration:	
<none> IM+</none>	ок
8800BB	Cancel

Installation may take up to 4 hours. Check back often on the BlackBerry unit and eventually you will see the new applications.

To check on the status of the configuration, select the unit from the list of handhelds and at the bottom of the unit information box it should display "Application Status"

White-listing Specific Applications

Because TeleNav and its private-labeled derivatives are "third-party applications", setting a BES to disallow third party applications will block the installation of TeleNav and its derivatives. This section of this document describes a way to use software configurations to allow specific applications, while forbidding the installation of others. The fundamental concept is to apply a top-level software configuration that blocks installations of software with lower level configurations that allow specific applications. See page 126 of the referenced guide.

Configuration Name: Telenav8800			
Configuration Description:			
Device Software Location: Vcronus/rim			Change
plication Name	Version	Delivery	
7130e Series Software	4.1.0		
8700 Series Software	4.1.0		
8800 Series Software	4.2.1		
8830 Series Software	4.2.2		
Application Software			Disallowed
BlackBerry MDS Runtime	1.1.2.23	Wireless	Disallowed
BlackBerry Instant Messaging for Microsoft(R) Of	1.1.18	Wireless	Disallowed
☑ TeleNav GPS Navigator	5.1.0.39	<u>Wireless</u>	Telenav
	_		
Details	Manage a policies	application control	Policies

- 2. Set the "Disposition" for this policy to "Disallowed"
- Set other properties according to your organization's needs. Don't worry about TeleNav GPS Navigator – Device Software Configuration will see the child policy you will create as an exception specifically for TeleNav GPS Navigator

Properties	External Domains	
	Browser Filter Domains	
	Disposition	Disallowed
	Interprocess Communication	Allowed
	Internal Network Connections	Prompt User
	External Network Connections	Prompt User
	Local Connections	Allowed
	Phone Access	Prompt User
	Message Access	Allowed
	PIM Data Access	Allowed
	Browser Filters	Allowed
	Event Injection	Allowed
	Bluetooth Serial Profile	Allowed
	BlackBerry Device Keystore	Allowed
	BlackBerry Device Keystore Mediur	n Sec Allowed
	Device GPS	Prompt User
	Theme Data	Allowed
	User Authenticator	Allowed
	Application Control Policy	2 E

Now that you have a parent Application Control Policy, you can create an "exception" policy for TeleNav GPS Navigator.

Create this as a child policy and set the properties as you see in the screenshot below:

oplication Control Policy		
Properties	External Domains	*.telenav.com
	Browser Filter Domains	
	Disposition	Optional
	Interprocess Communication	Allowed
	Internal Network Connections	Allowed
	External Network Connections	Prompt User
	Local Connections	Allowed
	Phone Access	Prompt User
	Message Access	Allowed
	PIM Data Access	Allowed
	Browser Filters	Not Permitted
	Event Injection	Allowed
	Bluetooth Serial Profile	Allowed
	BlackBerry Device Keystore	Allowed
	BlackBerry Device Keystore Medium	n Sec Allowed
	Device GPS	Allowed
	Theme Data	Allowed
	User Authenticator	Allowed -
	Application Control Policy	
		OK Cancel Apply