Jailbreak Detection Analysis

Comparison of jailed and jailbroken system

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1 Introduction

iOS jailbreaking is a process of removing the restriction imposed by iOS on the system and apps. It's achieved by exploiting the kernel vulnerabilities, so as to gain root level access on the iOS devices. This basically gives more control over the device such as installing applications from app stores other than Apple's, tweaking the apps behaviour as desired etc..

To jailbreak iOS, various protection mechanisms are needed to be compromised. Such as:

- 1. Code signing mechanism.
- 2. Memory page protection (w+x).
- 3. Disk partition protection (/dev/disk0s1s1).
- 4. Sandbox enforcement.

Many of the developers and enterprises do not recommended to run their apps on jailbroken devices. But, their detection methods are usually very weak and trivial to bypass. An attempt has been made to analyse various ways by which the apps can detect the state of the iOS device in better and improved way.

The following sections contains various detection methods.

Note:

Structure model status behaviour of the path, files etc. not marked as (9.21), (9.33) or (10.02) explicitly in the below tables, are same across the different versions and devices.

2 Spawning processes

Jailed system contains some of the binaries/calls which are impossible to execute on the jailed device, whereas they can easily be executed on the jailbroken device. Checking whether it's possible to invoke them or not. App store submission may incur some problem. But if not, then this can be consider as one of the way for detecting the jailbroken devices.

Binaries	Possible o	eall cmd
-	Jailed	JB
-	-	1
/bin/df		
	No	Yes
/bin/ps		
	No	Yes
/usr/bin/taskinfo		
	No	Yes
$/{ m usr/bin/vm_stat}$		
	No	Yes
/usr/sbin/ipconfig		
	No	Yes
/usr/sbin/syslogd		
	No	Yes
/usr/sbin/mDNSResponder		
	No	Yes
fork()		
	No	Yes

3 Checking dynamically loaded libraries

After the jailbreak many different kind of tweaks can be installed from app stores like cydia. These tweaks are nothing but the dynamic libraries which can be loaded with the legitimate apple store apps and can be used to change the behaviour of the apps at runtime.

- 1. getenv("DYLD_INSERT_LIBRARIES"):
 - (a) Jailed: returns NULL.
 - (b) Jailbroken: may return NULL or "MobileSubstrate.dylib" etc. depending on the availability of the library file in the device.
- 2. _dyld_get_image_name(int arg):
 - (a) Jailed: returns various loaded libraries.
 - (b) Jailbroken: may return additional libraries such as "MobileSubstrate.dylib" etc. along with the one already loaded on the jailed device.

Some others libraries which could be also checked are: "AppList.dylib", "CustomWidgetIcons.dylib", "MobileSafety.dylib", "OpenSiri.dylib", "PreferenceLoader.dylib", "RocketBootstrap.dylib", "SSLKillSwitch.dylib", "SSLKillSwitch2.dylib", "WeeLoader.dylib", "patcyh.dylib" etc.

Note:

These libraries will only be loaded if the user has installed and enabled them on the device. i.e., their presence in the process memory can only be possible on the jailbroken devices, but their absence can not be considered that the device is jailed.

4 Creating files outside sandbox

In iOS all the non-native apps are run under the sandbox. This is nothing but a set of policies enforced on the apps by the iOS.

Due to this there's nothing much an app can do outside it's own space. One such restriction is to not allow the apps to write outside it's sandbox (some relaxation are there for iCloud and extensions etc.).

Jailbreaking removes (depends from version to version) some of the sandbox restrictions, like allowing the apps to create a file in some of those locations which are not possible in jailed system. Successful creation and deletion of files on these locations can be considered as a very good way of detecting the state of the device.

Path	Possible to	create a file
-	Jailed	JB
-	-	-
/tmp/test.txt		
	No	Yes
/var/mobile/Containers/Data/Application/test.txt	.,	
	No	Yes
/private/var/mobile/test.txt	No	Yes
/var/mobile/Containers/Bundle/Application/test.txt(9.21)		
	No	Yes
$/\mathrm{private/var/mobile/Library/Caches/test.txt}$		
	No	Yes
/ private/var/mobile/Library/test.txt	No	Yes
/private/var/tmp/test.txt	110	103
//private/ var/ varp/ sessions	No	Yes
/private/var/mobile/Containers/test.txt		
	No	Yes
/private/var/mobile/Downloads/test.txt		
	No	Yes
/test.txt	No	No
/Applications/test.txt	No	No
/private/test.txt	No	No
/private/var/test.txt	No	No
/private/var/root/test.txt	No	No
/Developer/test.txt	No	No

Path	Possible to	create a file
-	Jailed	JB
-	-	-
/Library/test.txt	No	No
/System/test.txt	No	No
/bin/test.txt	No	No
/cores/test.txt	No	No
/dev/test.txt	No	No
/sbin/test.txt	No	No
/usr/test.txt	No	No
/var/test.txt	No	No
$\boxed{/\text{var/containers/Bundle/Application/test.txt}}$	No	No
/private/var/keybags/test.txt	No	No
/ Library/Keychains/test.txt	No	No
/private/var/Keychains/test.txt	No	No
/Library/Ringtones/test.txt	No	No
/Library/Wallpaper/test.txt	No	No
/usr/libexec/test.txt	No	No
/usr/share/test.txt	No	No

5 Comparing folder size

Jailbreaking the system introduces many new binaries/files in the device. This increases the size of the folders such as /bin, /sbin, /usr/bin, /usr/sbin, /usr/libexec etc..

It's better to pre-calculate the size of these folders for all the jailed iOS version separately on different jailed devices and then compare their sizes. If size is bigger than the pre-calculated value then it could consider that the device is jailbroken.

Tables present in the following sections can show the increase in size of the /bin, /sbin folders.

6 Checking file permissions - I

Generally jailbreaking introduces many new files, binaries etc. on the system (such as ls, cp etc.), and also changes the permission model for some of the existing files and folders on the jailed system.

Tables below shows the exhaustive list comparing files, binaries and folder etc., this list is not limited and can be extended to other files and folders too.

Checking for the presence of new files and permission models of the existing files can be considered as a better way to detect the state of the device.

Note:

Files marked as (*) are optional, and might not be available even on the jailbroken device. Again, absence of these optional files can not guarantee that the device is jailed.

File	Ex	ists	Oper	nable	Read	dable	Writ	able	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
/Applications(9.21)	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
/Applications(9.33)	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
/Applications(10.02)	Yes	-	No	-	No	-	No	-	Yes	-
/Developer	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
/Library	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/System	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/User(*)	No	Yes	-	Yes	-	Yes	-	Yes	-	Yes
/bin	Yes	Yes					No	No	Yes	Yes
/ bin	ies	ies	No	Yes	No	Yes	140	No	res	ies
/boot			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/cores	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/dev	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/etc	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Yes
/lib			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/mnt			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	lable	Writ	table	Exect	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/private	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/sbin	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/tmp	Yes	Yes							Yes	Yes
			No	Yes	No	Yes	No	Yes		
/usr	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/var	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/var/mobile/Containers/Data/Application	Yes	Yes							Yes	Yes
			No	Yes	No	Yes	No	Yes		
/var/mobile/Containers/Data/Application/Other-App	Yes	Yes				.,	.,	.,	Yes	Yes
			No	Yes	No	Yes	No	Yes		
/var/mobile/Containers/Bundle/Application (9.21)	Yes	Yes	N.	V	N.	W.	NT.		Yes	Yes
			No	Yes	No	Yes	No	Yes		
/var/mobile/containers/Bundle/Application/Other-App (9.21)	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes
			140	res	140	ies				
ho var/containers/Bundle/Application (9.33)	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Yes
			110	103	110	103				
/var/containers/Bundle/Application/Other-App (9.33)	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Yes
(V.						N.		V	
/var/containers/Bundle/Application(10.02)	Yes	-	No	-	No	-	No	-	Yes	-
/ var/containers/Bundle/Application/Other-App (10.02)	Yes	-	No	-	No	-	No	-	Yes	-
/private/var/keybags	Yes	Yes	No	No	No	No	No	No	No	No
/Library/Keychains	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				

File	Ex	ists	Ope	nable	Read	dable	Writ	able	Exect	ıtable
-	Jailed	ЈВ	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/private/var/Keychains	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/private/var/Keychains/keychain-2.db	Yes	Yes	No	No	No	No	No	No	No	No
/private/var/Keychains/TrustStore.sqlite3	Yes	Yes	No	No	No	No	No	No	No	No
/private/var	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/dev/disk0s1s1	Yes	Yes	No	No	No	No	No	No	No	No
/dev/disk0s1s2	Yes	Yes	No	No	No	No	No	No	No	No
/dev/disk4(9.21)	No	No	-	-	-	-	-	-	-	-
$/{ m dev/disk4}(9.33)$	Yes	Yes	No	No	No	No	No	No	No	No
$/{ m dev/disk4}(10.02)$	Yes	-	No	-	No	-	No	-	No	-
/etc/fstab	Yes	Yes					No	No	No	No
			No	Yes	No	Yes				
/usr/bin	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/usr/sbin	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/Library/Ringtones	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
/Library/Wallpaper	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/usr/libexec	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				

File	Ex	ists	Ope	nable	Read	dable	Wri	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/share	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
/bin/df	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/bin/ps	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/sbin/fsck	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/sbin/fsck_exfat	Yes	Yes	Yes	Yes	Yes	Yes	No	No		
									No	Yes
/sbin/fsck_hfs	Yes	Yes	Yes	Yes	Yes	Yes	No	No		
									No	Yes
/sbin/fsck_msdos	Yes	Yes	Yes	Yes	Yes	Yes	No	No		
									No	Yes
/sbin/fstyp	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/sbin/fstyp_hfs	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/sbin/launchd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/sbin/mount	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/sbin/mount_hfs	Yes	Yes	Yes	Yes	Yes	Yes	No	No		
									No	Yes
/sbin/newfs_hfs	Yes	Yes	Yes	Yes	Yes	Yes	No	No		
									No	Yes
/sbin/pfctl	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/bin/brctl	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes

File	Ex	ists	Ope	nable	Rea	dable	Wri	table	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/ usr/bin/powerlogHelperd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/bin/powerlogd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/bin/simulate crash	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/bin/sysdiagnose	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/bin/taskinfo	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/usr/bin/vm_stat$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/bin/zprint}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/sbin/absd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\bf usr/sbin/addNetworkInterface}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\rm usr/sbin/aslmanager}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/sbin/BTAvrcp}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/sbin/BTLEServer	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/sbin/BTMap}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/sbin/BTPbap	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/sbin/BTServer	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes

File	Ex	ists	Oper	nable	Read	dable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
$/{\bf usr/sbin/BlueTool}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\rm usr/sbin/cfprefsd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/sbin/distnoted	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/sbin/file coordination d	Yes	Yes		**	27	**	No	No		77
			No	Yes	No	Yes			No	Yes
/usr/sbin/ipconfig	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/ / / DVGD /	37	37	110	100	110	100	N.		110	100
/ usr/sbin/mDNSResponder	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
$/{ m usr/sbin/mDNSResponderHelper}$	Yes	Yes					No	No		
/ usi/ssm/ mb Noteesponderrespor	100	105	No	Yes	No	Yes		110	No	Yes
/usr/sbin/mediaserverd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/sbin/notifyd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/sbin/nvram}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/sbin/pppd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/sbin/racoon	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/sbin/rtadvd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{ m usr/sbin/scselect}$	Yes	Yes	No	Voc	No	Voc	No	No	No	Vo-
, , ,			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/sbin/scutil}$	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes

File	Ex	ists	Ope.	nable	Read	dable	Writ	able	Exec	ntable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
$/{\rm usr/sbin/spindump}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{usr/sbin/syslogd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/sbin/wifid}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/sbin/wirelessproxd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/sbin/Wireless Radio Managerd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/BackupAgent	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/BackupAgent2	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/CrashHousekeeping	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/DuetHeuristic-BM	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/FSTaskScheduler	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/FinishRestoreFromBackup	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/MobileGestaltHelper	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/NANDTaskScheduler	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/OTAPKIAssetTool	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/OTATasking Agent	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/libexec/PreboardService	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/ProxiedCrashCopier	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/PurpleReverseProxy	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/SafariCloudHistoryPushAgent	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/SyncAgent	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/UserEventAgent	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
			INO	ies	INO	res			NO	ies
/usr/libexec/adid	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
((())			110	100	110	100			110	100
/usr/libexec/afcd	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/usr/libexec/aitd	Yes	Yes					No	No		
/ usi/ libexec/ and	163	Tes	No	Yes	No	Yes	110	110	No	Yes
/usr/libexec/amfid	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/assertiond	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/atc	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/atwakeup	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/backboardd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/biometrickitd (TouchID)	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes

File	Ex	ists	Ope	nable	Read	dable	Wri	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/libexec/bootpd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/bubbled (9.21)	No	No	-	-	-	-	-	-	-	-
$/{ m usr/libexec/bubbled(9.33)}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{ m usr/libexec/bubbled(10.02)}$	Yes	-	No	-	No	-	No	-	No	-
$/usr/libexec/cc_fips_test$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/checkpointd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/ usr/libexec/companion_proxy$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/configd	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/ / / / · · · · · · · · · · · · · · · ·	37	v	110	Tes	110	Tes	N.	N	110	Tes
/usr/libexec/corecaptured	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/usr/libexec/coreduetd	Yes	Yes					No	No		
, ,			No	Yes	No	Yes			No	Yes
/usr/libexec/crash_mover	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\rm usr/libexec/demod}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{usr/libexec/demod_helper}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/dhcpd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/diagnosticd	Yes	Yes	N-	V	N-	V	No	No	NI.	V
			No	Yes	No	Yes			No	Yes

File	Ex	ists	Oper	nable	Read	lable	Writ	table	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/libexec/duetexpertd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/findmydeviced	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/fmfd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/libexec/fseventsd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/ftp-proxy	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/gamecontrollerd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/gamed	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/hangreporter (9.21)	No	No	-	-	-	-	-	-	-	-
$/{ m usr/libexec/hangreporter} (9.33)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\rm usr/libexec/hangreporter} (10.02)$	Yes	-	No	-	No	-	No	-	No	-
/usr/libexec/hangtracerd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/hostapd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/idamd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/ifccd(9.21)	No	No	-	-	-	-	-	-	-	-
/usr/libexec/ifccd(9.33)	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes

File	Ex	ists	Ope	nable	Read	dable	Wri	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
m /usr/libexec/ifccd(10.02)	Yes	-	No	-	No	-	No	-	No	-
$/usr/libexec/init_data_protection$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/installd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/ioupsd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/keybagd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/lib exec/language as set d	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
			110	165	110	165			110	165
/ usr/libexec/limit adtracking d	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/usr/libexec/locationd	Yes	Yes					No	No		
y asi, ilserce, realistic	105	100	No	Yes	No	Yes	110	1.0	No	Yes
/usr/libexec/lockbot	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/lockdownd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/logd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/lsd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/lskdd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/lskdmsed	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/libexec/mailq}(9.21)$	No	No	-	-	-	-	-	-	-	-

File	Ex	ists	Ope	nable	Read	lable	Writ	able	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
$/{ m usr/libexec/mailq(9.33)}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{ m usr/libexec/mailq(10.02)}$	Yes	-	No	-	No	-	No	-	No	-
$/usr/libexec/mc_mobile_tunnel$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\rm usr/libexec/misagent}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\rm usr/libexec/misd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/mmaintenanced	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/usr/libexec/mobile_assertion_agent$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/usr/libexec/mobile_diagnostics_relay$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/usr/libexec/mobile_file_relay$	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
			140	Tes	No	Tes			140	Tes
$/usr/libexec/mobile_house_arrest$	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/ /n / 12 · / 12 ·	V	V					N.	D.		
$/usr/libexec/mobile_installation_proxy$	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/usr/libexec/mobile_obliterator	Yes	Yes					No	No		
,,sece, messac_oblice aco	203		No	Yes	No	Yes	1.0	1.0	No	Yes
/usr/libexec/mobile_storage_proxy	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/mobile activation d (9.21)	No	No	-	-	-	-	-	-	-	-
/usr/libexec/mobileactivationd(9.33)	Yes	Yes					No	No		
. ,			No	Yes	No	Yes			No	Yes

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/ usr/libexec/mobile activationd (10.02)	Yes	-	No	-	No	-	No	-	No	-
/ usr/libexec/mobile as setd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/mtmergeprops	Yes	Yes		V		V	No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/neagent	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
$/{ m usr/libexec/nehelper}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/nesession manager	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/usr/libexec/nfcd \ (TouchID)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/nlcd	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/usr/libexec/notification_proxy	Yes	Yes					No	No		
_1 3			No	Yes	No	Yes			No	Yes
/usr/libexec/nsurlsessiond	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/nsurlstoraged	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/online-auth-agent	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/usr/libexec/oscard	Yes	Yes					No	No		
, , , ,			No	Yes	No	Yes			No	Yes
$/{\bf usr/libexec/pcapd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{ m usr/libexec/pfd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes

File	Ex	ists	Ope	nable	Read	dable	Wri	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
$/{\rm usr/libexec/pipelined}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/pkd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/pkreporter	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/ptpd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/replayd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/rolld	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/routined	Yes	Yes	N	V	N	V	No	No	N	V
			No	Yes	No	Yes			No	Yes
/ usr/libexec/rtcreportingd	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
			110	165	110	165			110	Tes
/usr/libexec/securityd	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
((((((((((((((((((((110	100	110	100			1.0	100
/usr/libexec/seld (TouchID)	Yes	Yes	No	Yes	No	Yes	No	No	No	Yes
/usr/libexec/seputil	Yes	Yes					No	No		
/ usi/indexec/seputii	ies	ies	No	Yes	No	Yes	110	110	No	Yes
/usr/libexec/sharingd	Yes	Yes					No	No		
, , , , , , , , , , , , , , , , , , , 			No	Yes	No	Yes			No	Yes
/usr/libexec/splashboardd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/springboardservicesrelay	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/ usr/libexec/streaming_zip_conduit$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes

File	Ex	ists	Оре	nable	Read	lable	Wri	table	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
$/\mathrm{usr/libexec/swcd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/libexec/symptomsd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/symptomsd-helper	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/usr/libexec/syslog_relay	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/libexec/sysstatuscheck}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/libexec/timed}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/tipsd	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\bf usr/libexec/transitd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/libexec/tzd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/libexec/tzinit}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/libexec/tzlinkd}$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{ m usr/libexec/wapic}$	Yes	Yes	27		27	***	No	No	27	37
			No	Yes	No	Yes			No	Yes
/ usr/libexec/we bin spectord	Yes	Yes	NT.	V	NT -	V	No	No	NT.	V o o
			No	Yes	No	Yes			No	Yes
/usr/libexec/wifiFirmware Loader	Yes	Yes	No	Voc	No	Voc	No	No	No	Vo-
			No	Yes	No	Yes			No	Yes
/ usr/libexec/xpcproxy	Yes	Yes	NI-	V	N-	V	No	No	N-	V
			No	Yes	No	Yes			No	Yes

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/lib	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
/Library/LaunchAgents	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/System/Library/LaunchDaemons	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes
$/{\rm usr/libexec/aosnotifyd} (9.21)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{ m usr/libexec/aosnotifyd} (9.33)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\rm usr/libexec/aosnotifyd(10.02)}$	No	-	-	-	-	-	-	-	-	-
$/{\rm usr/libexec/find mydeviced-nano-support} (9.21)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/findmydeviced-nano-support (9.33)	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
/ usr/libexec/findmydeviced-nano-support (10.02)	No	-	-	-	-	-	-	-	-	-
/usr/libexec/ios_diagnostics_relay(9.21)	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/ usr/libexec/ios_diagnostics_relay (9.33)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/ usr/libexec/ios_diagnostics_relay(10.02)$	No	-	-	-	-	-	-	-	-	-

File	Ex	ists	Ope	nable	Read	dable	Wri	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
$/{ m usr/libexec/networkd}(9.21)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/\mathrm{usr/libexec/networkd}(9.33)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{ m usr/libexec/networkd} (10.02)$	No	-	-	-	-	-	-	-	-	-
$/ usr/libexec/networkd_privileged (9.21)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/ usr/libexec/networkd_privileged (9.33)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/ usr/libexec/networkd_privileged (10.02)$	No	-	-	-	-	-	-	-	-	-
$/{ m usr/libexec/uuidpathd} (9.21)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{ m usr/libexec/uuidpathd} (9.33)$	Yes	Yes					No	No		
			No	Yes	No	Yes			No	Yes
$/{\rm usr/libexec/uuidpathd} (10.02)$	No	-	-	-	-	-	-	-	-	-
$/\mathrm{private/var/root}$	Yes	Yes					No	No	Yes	Yes
			No	Yes	No	Yes				
/private/var/mobile	Yes	Yes							Yes	Yes
			No	Yes	No	Yes	No	Yes		
/private/var/mobile/Library	Yes	Yes							Yes	Yes
			No	Yes	No	Yes	No	Yes		
/private/var/mobile/Library/Caches	Yes	Yes							Yes	Yes
			No	Yes	No	Yes	No	Yes		

File	Ex	ists	Ope	nable	Reac	lable	Writ	able	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/private/var/stash(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/private/var/lib/cydia			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/private/var/tmp/cydia.log(*)			-	Yes	-	Yes	-	Yes	-	No
	No	Yes								
$/\mathrm{private/var/tmp/pgloader}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/private/var/mobile/Library/Caches/com.saurik.Cydia	NT.	Ver	-	Yes	-	Yes	-	Yes	-	Yes
	No	Yes								
/private/var/mobile/Library/Cydia(*)	No	Yes	-	Yes	-	Yes	-	Yes	-	Yes
		103								
/private/var/mobile/Library/SBSettings(*)	No	Yes	-	Yes	-	Yes	-	Yes	-	Yes
/private/var/mobile/Library/SBSettings/Themes(*)			_	Yes	_	Yes	_	Yes	_	Yes
	No	Yes								
$/\mathrm{var/tmp/pgloader}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/var/log/syslog(*)	No	-	-	-	-	-	-	-	-	-
/var/lib/cydia			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/var/cache/apt	·		-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/private/var/lib/apt			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/User/Applications(*)	No	-	-	-	-	-	-	-	-	-
$/{\rm usr/arm\text{-}apple\text{-}darwin9(*)}$	No	-	-	-	-	-	-	-	-	-

File	Ex	ists	Ope	nable	Read	dable	Wri	table	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/include			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/etc/apt			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/etc/ssh/sshd_config(*)	No	Yes	-	Yes	-	Yes	-	No	-	No
/usr/libexec/ssh-keysign(*)			_	No	_	No	_	No	_	Yes
/ usi/mbexec/ssn-acysign()	No	Yes	-	NO	-	140	-	No	-	ies
/var/tmp/cydia.log(*)			-	Yes	-	Yes	-	Yes	-	No
	No	Yes								
/usr/lib/libpatcyh.dylib			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/lib/librocketbootstrap.dylib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/lib/libapplist.dylib(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/Library/MobileSubstrate/DynamicLibraries			_	Yes	_	Yes	_	No	_	Yes
/ List at y/ Noones destrate/ Dynamic List ares	No	Yes	-	ies	-	res	-	140	-	ies
/Library/MobileSubstrate/DynamicLibraries/AppList.dylib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/App List.plist(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/Custom Widget I cons. dylib (*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/Custom Widget I cons.plist (*)	No	Yes	-	Yes	-	Yes	-	No	-	No
/Library/MobileSubstrate/DynamicLibraries/MobileSafety.dylib(*)			_	Yes	_	Yes	_	No	_	Yes
/ Lima w.y. Anomes most rate/ Dynamic Libraries/ Mobile Salety. dynfb(*)	No	Yes		ies	_	ies	-	110	-	ies
/Library/Mobile Substrate/Dynamic Libraries/Mobile Safety.plist (*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								

File	Ex	ists	Ope	nable	Read	lable	Wri	table	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	ЈВ
-	-	-	-	-	-	-	-	-	-	-
/Library/Mobile Substrate/Dynamic Libraries/Open Siri. dylib (*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/Open Siri.plist (*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/Preference Loader. dylib (*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/Preference Loader.plist (*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/Rocket Bootstrap. dylib (*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/Rocket Bootstrap.plist (*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/SSLKill Switch 2. dylib (*)			-	Yes	-	Yes	-	Yes	-	Yes
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/SSLKill Switch 2.plist (*)			-	Yes	-	Yes	-	Yes	-	No
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/Wee Loader. dylib (*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/Wee Loader.plist (*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/patcyh.dylib			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/Mobile Substrate/Dynamic Libraries/patcyh.plist			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/Library/MobileSubstrate/MobileSubstrate.dylib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/Frameworks/Cydia Substrate. framework (*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/Frameworks/CydiaSubstrate.framework/Libraries/SubstrateInjection.dylib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/Library/Mobile Substrate/Dynamic Libraries/Veency.plist(*)	No	-	-	-	-	-	-	-	-	-
/Library/Mobile Substrate/Dynamic Libraries/Live Clock.plist(*)	No	-	-	-	-	-	-	-	-	-
/ System/Library/LaunchDaemons/com.ikey.bbot.plist(*)	No	-	-	-	-	-	-	-	-	-
/System/Library/LaunchDaemons/com.saurik.Cydia.Startup.plist(*)	No	-	-	-	-	-	-	-	-	-
/var/lib/apt			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/libexec/sftp-server(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Applications/Cydia.app(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/ Applications/Rock App.app(*)	No	-	-	-	-	-	-	-	-	-
/Applications/Icy.app(*)	No	-	-	-	-	-	-	-	-	-
/Applications/WinterBoard.app(*)	No	-	-	-	-	-	-	-	-	-
/Applications/SBSettings.app(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Applications/MxTube.app(*)	No	-	-	-	-	-	-	-	-	-
/Applications/IntelliScreen.app(*)	No	-	-	-	-	-	-	-	-	-
/Applications/FakeCarrier.app(*)	No	-	-	-	-	-	-	-	-	-
/Applications/blackra1n.app(*)	No	-	-	-	-	-	-	-	-	-

File	Ex	ists	Ope	nable	Read	lable	Wri	table	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/bin/bash			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/bunzip2			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/bzcat			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/bzip2			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/bzip2recover	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	- 110	100		v		v		N		v
/bin/cat	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/chgrp			_	Yes	_	Yes	_	No	_	Yes
7 7 81	No	Yes								
/bin/chmod			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/chown			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/cp			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/date			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/dd	No	Voc	-	Yes	-	Yes	-	No	-	Yes
0. (7	No	Yes								
/bin/dir	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/echo			-	Yes	_	Yes	_	No	_	Yes
,, co	No	Yes		103		103				103
/bin/egrep			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	lable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/bin/false			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/fgrep			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{bin/grep}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/gzexe			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/gzip			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/kill			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/launchetl			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/ln			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/ls			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/mkdir			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/mknod			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/mktemp			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/more(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/mv			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/ping(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	lable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/bin/ping6(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/pwd			-	Yes	-	Yes	-	No	-	Yes
/bin/readlink	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/rm	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/rmdir	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/run-parts			-	Yes	-	Yes	-	No	-	Yes
/bin/sed	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/sh	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/sleep	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/stty	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/su			-	Yes	-	Yes	-	No	-	Yes
/bin/sync	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/tar	No	Yes	-	Yes	-	Yes	-	No	_	Yes
, , , , , , ,	No	Yes					-	110		203
/bin/touch	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/true	No	Yes	-	Yes	-	Yes	-	No	-	Yes

/bin/uname /bin/uncompress /bin/vdir /bin/zcat /bin/zcat /bin/zcmp /bin/zdiff /bin/zdiff	- No No	JB - Yes	Jailed - -	JB - Yes	Jailed - -	JB -	Jailed -	JB -	Jailed -	JB
/bin/uname /bin/uncompress /bin/vdir /bin/zcat /bin/zcat /bin/zdiff /bin/zdiff	No No	Yes	-			-	-	-		
/bin/uncompress /bin/vdir /bin/zcat /bin/zcmp /bin/zdiff /bin/zegrep	No			Yes	-				- !	-
/bin/uncompress /bin/vdir /bin/zcat /bin/zcmp N /bin/zcmp N /bin/zdiff N /bin/zegrep	No					Yes	-	No	-	Yes
/bin/vdir /bin/zcat /bin/zcmp /bin/zcmf /bin/zdiff /bin/zegrep		Yes								
/bin/vdir /bin/zcat /bin/zcmp /bin/zdiff /bin/zegrep		Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/zcat /bin/zcmp /bin/zdiff /bin/zegrep	No									
/bin/zcat /bin/zcmp /bin/zdiff /bin/zdiff /bin/zegrep	No		-	Yes	-	Yes	-	No	-	Yes
/bin/zcmp /bin/zdiff /bin/zegrep		Yes								
/bin/zcmp /bin/zdiff /bin/zegrep			-	Yes	-	Yes	-	No	-	Yes
/bin/zdiff /bin/zegrep	No	Yes								
/bin/zdiff N /bin/zegrep	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/bin/zegrep	140	Tes								
/bin/zegrep	No	Yes	-	Yes	-	Yes	-	No	-	Yes
N			_	Yes		Yes	_	No		Yes
/bin/zfgrep	No	Yes	-	ies	-	ies	-	110	-	les
			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/bin/zforce			-	Yes	-	Yes	-	No	-	Yes
N	No	Yes								
/bin/zgrep			-	Yes	-	Yes	-	No	-	Yes
N	No	Yes								
/bin/zless			-	Yes	-	Yes	-	No	-	Yes
N	No	Yes								
/bin/zmore			-	Yes	-	Yes	-	No	-	Yes
N	No	Yes								
/bin/znew			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/clri(*)		V	-	Yes	-	Yes	-	No	-	Yes
	.	Yes								
/sbin/dmesg	No			Yes		Yes		No		Yes

File	Ex	ists	Ope:	nable	Read	lable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/sbin/dump(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/dumpfs(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/dynamic_pager	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/fstyp_msdos(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/fstyp_ntfs(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/fstyp_udf(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/fstyp_ufs(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/halt	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/ifconfig(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/ip6fw(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/ipfw(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/mount_cd9660(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/mount_devfs(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
$/{ m sbin/mount_fdesc(*)}$	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/mount_kernfs(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes

File	Ex	ists	Ope	nable	Read	lable	Writ	able	Executable	
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
	-	-	-	-	-	-	-	-	-	-
/sbin/mount_null(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/mount_procfs(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/mount_synthfs(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/mount_union(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/netstat(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/newfs(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/nologin			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/ping(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/ping6(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/quotacheck(*)	NT-	V	-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/sbin/reboot	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	110	163								
/sbin/restore(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
(1. / / /		255								
/sbin/route(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/shin /nonts d/*\				V		V		NT -		V
/sbin/routed(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/sbin/rtsol(*)			_	Yes	_	Yes	_	No	_	Yes
, SDIII/ I tSUI()	No	Yes	_	res	-	ies	_	140	-	ies

File	Ex	ists	Оре	nable	Read	dable	Writ	table	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/sbin/slattach(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{ m sbin}/{ m tunefs}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{ m sbin/umount}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/2html(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/2xml(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/7z(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/7za(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/Clutch(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/Clutch2(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/FileDP(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/ObjectDump(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/[(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/appsearch(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/ usr/bin/apr-1-config(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/apt-cache(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Оре	nable	Read	dable	Wri	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
$/\mathrm{usr/bin/apt\text{-}cdrom(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/apt\text{-}config(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/apt\text{-}extracttemplates(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/apt\text{-}ftparchive(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/apt\text{-}get(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/apt-key}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/apt\text{-}mark(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{usr/bin/apt-sortpkgs(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/apu-1-config(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/ar(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/arch			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/as(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{ m usr/bin/autopoint(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/awk(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/base64(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Writ	able	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/basename(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/bashbug	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/bitcode_strip(*)			-	Yes	-	Yes	-	No	-	Yes
/usr/bin/c_rehash(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/captoinfo	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/cfversion	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/chcon(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/checksyms(*)	No	Yes	_	Yes	_	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/chflags(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/chfn(*)	No	-	-	-	-	-	-	-	-	-
/usr/bin/chown(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/chsh(*)	No	-	-	-	-	-	-	-	-	-
/usr/bin/cksum(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/class-dump(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/class-dump-z(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes

File	Ex	ists	Ope	nable	Read	dable	Writ	able	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/classdump-dyld(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/clear			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/cmp	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usy/kin/ss deging allocate(*)		100	_	Yes	_	Yes	-	No	_	Yes
/usr/bin/codesign_allocate(*)	No	Yes	-	ies	-	ies	-	No	-	ies
/usr/bin/comm(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/compress(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/csplit(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/csv2(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/ctags(*)			_	Yes	-	Yes	-	No	_	Yes
,,,	No	Yes								
/usr/bin/curl(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/curl-config(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/cut(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/cycc(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/cycript(*)			_	Yes	_	Yes	_	No	-	Yes
,,, -500-600	No	Yes		100		100		1.0		100
/usr/bin/cynject(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Оре	nable	Read	dable	Wri	table	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/db_archive(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/ usr/bin/db_checkpoint(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/db_codegen(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/db_deadlock(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/db_dump(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/ usr/bin/db_hotbackup(*)$	No	Voc	-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/db_load(*)}$	No	Yes	-	Yes	-	Yes	-	No	-	Yes
((() () () () () () () () ()	110	100		N.		37		N		37
$/\mathrm{usr/bin/db_printlog(*)}$	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/db_recover(*)			_	Yes	_	Yes	_	No	_	Yes
/ usi/ siii/ us_recerei()	No	Yes		100		105		110		100
/usr/bin/db_stat(*)			-	Yes	-	Yes	-	No	-	Yes
–	No	Yes								
/usr/bin/db_upgrade(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/db_verify(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{ m usr/bin/deviceinfo(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{ m usr/bin/df}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/diff}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Oper	nable	Read	lable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/diff3			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/dircolors(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/dirname			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/doNotify(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/dpkg			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/dpkg-deb			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/dpkg-name			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/dpkg-query			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/dpkg-split			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/dpkg ext{-}trigger}$	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	No	ies								
/usr/bin/dselect	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	110	160								
/usr/bin/dsymutil(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/ /1 /1 /4				77				2.		
/usr/bin/du(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/dyldinfo(*)				Yes		Yes		No		Yes
, usi / Diii/ UyiUiffiO(**)	No	Yes	-	ies	-	ies	-	INO	-	ies
/usr/bin/env(*)			-	Yes	_	Yes	_	No	_	Yes
,, 5, 5, ()	No	Yes		205		105		110		105

File	Ex	ists	Ope	nable	Read	dable	Writ	able	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/envsubst(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/error(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/ex(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/expand(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/expr(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/factor(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/faker(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/filan(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/find			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/finger(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/fmt(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/fold(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/fsmon(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/ftp(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/funzip(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/gawk(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/gdb}(*)$			-	Yes	-	Yes	-	Yes	-	Yes
	No	Yes								
/usr/bin/getconf			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/gettext(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/gettext.sh(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/gettextize(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/getty			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/git(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/git-cvsserver(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/git-receive-pack(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/git-shell(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/git-upload-archive(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/git-upload-pack(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/gpg			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/gpg-zip			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/gpgsplit			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/gpgv			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/groups(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/gssc			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/head}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/hexdump(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/hostid(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/hostinfo			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/hostname(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/html2(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/id(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/igawk(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/indr(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/infocmp			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/infotocap			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/install(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/ usr/bin/install_name_tool(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/ usr/bin/installipa(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/ usr/bin/iomfsetgamma			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/ip\text{-}print(*)}$	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	110	165								
$/\mathrm{usr/bin/ip6conf(*)}$	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/ipainstaller(*)			_	Yes	_	Yes	_	No	_	Yes
/ usi/ siii/ ipunistatioi ()	No	Yes		165		105		110		100
/usr/bin/ipcrm(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/ipcs(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/join(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/ usr/bin/keychain_dumper(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/ usr/bin/key chained it or (*)			-	Yes	-	Yes	-	Yes	-	Yes
	No	Yes								
/usr/bin/killall	No	Yes	-	Yes	-	Yes	-	No	-	Yes
((() () () () ()	140	162								
$/\mathrm{usr/bin/last(*)}$	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/ld(*)			_	Yes	_	Yes	_	No	_	Yes
,,()	No	Yes								

File	Ex	ists	Ope.	nable	Read	lable	Writ	able	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/ldid			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/ldrestart			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/less(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lessecho(*)	NT.		-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lesskey(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/libtool(*)			-	Yes	_	Yes	-	No	_	Yes
/ usi/ biii/ iibtooi()	No	Yes	_	163	_	165	_	110	_	Tes
/usr/bin/link(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lipo(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/locale(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/locate			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/logger(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	110	165								
/usr/bin/login	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/logname(*)			-	Yes	-	Yes	_	No	-	Yes
,,, g ()	No	Yes						- 10		
/usr/bin/lsof(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lsvfs(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Writ	able	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/lzcat			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzcmp			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzdiff			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzegrep			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzfgrep			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzgrep			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzless			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzma			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzmadec			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzmainfo			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/lzmore			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/machocheck(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/make(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/md(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/md5sum(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Reac	lable	Writ	able	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
	-	-	-	-	-	-	-	-	-	-
/usr/bin/mesg(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/mig(*)}$	NT-	V	-	Yes	-	Yes	-	No	-	No
	No	Yes								
/usr/bin/mkfifo(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/mktemp(*)			_	Yes	_	Yes	-	No	_	Yes
1(7)	No	Yes								
/usr/bin/more(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msgattrib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msgcat(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/msgcmp(*)		103		Yes		Yes		No		Yes
/ usr/bin/ msgcmp(*)	No	Yes	-	ies	-	ies	-	No	-	ies
/usr/bin/msgcomm(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msgconv(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msgen(*)	NT -	V	-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msgexec(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/msgfilter(*)			-	Yes	_	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msgfmt(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msggrep(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Оре	nable	Read	dable	Wri	able	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/msginit(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msgmerge(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msgunfmt(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/msguniq(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/nano(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	NO	Tes								
/usr/bin/ncurses5-config	No	Yes	-	Yes	-	Yes	-	No	-	Yes
				Yes		Yes		No		Yes
/usr/bin/ncursesw5-config	No	Yes	-	res	-	res	-	No	-	res
/usr/bin/neon-config(*)			_	Yes	-	Yes	_	No	_	Yes
///8()	No	Yes								
/usr/bin/ngettext(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/nice(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/nl(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/nm(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/nmedit(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/nohup(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/notificationWatcher(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Exi	sts	Oper	nable	Read	lable	Writ	table	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/nproc(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/ondeviceconsole(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/open(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/openURL(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/openssl(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
((1 /) (4)	110	Tes								
/usr/bin/otool(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/pagesize			_	Yes	_	Yes	_	No	_	Yes
// F-G	No	Yes								
/usr/bin/pagestuff(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/passwd			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/paste(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/patch(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/pathchk(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/pax(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/pbcopy(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	110	162								
/usr/bin/pbpaste(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes

File	Ex	ists	Ope	nable	Read	lable	Writ	able	Exect	ıtable
-	Jailed	ЈВ	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/pbwatcher(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/pcap-config(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/pcre-config(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/pcregrep(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/pcretest(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/pincrush(*)			-	Yes	-	Yes	-	Yes	-	Yes
	No	Yes								
/usr/bin/ping(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	110	Tes								
/usr/bin/pinky(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	110	165								
/usr/bin/play(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
//l:/-l4:1(*)				V		V		NI-		V
/usr/bin/plutil(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/pr(*)			_	Yes	_	Yes	_	No	_	Yes
,, o, pr()	No	Yes		163		165	_	110	_	165
/usr/bin/printenv(*)			_	Yes	-	Yes	-	No	_	Yes
, , , ,	No	Yes								
/usr/bin/printf(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/procan(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/ps(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Oper	nable	Read	dable	Wri	table	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/ptx(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/quota(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/ranlib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/rcp(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	NO	ies								
/usr/bin/recode-sr-latin(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/redo_prebinding(*)			_	Yes	_	Yes	_	No	_	Yes
///F (No	Yes								
/usr/bin/renice			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/reset			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/restart(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/rlogin(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/rnano(*)	NT -	V	-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/rpcgen(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/rsh(*)			_	Yes	_	Yes	_	No	_	Yes
/ wi/ bii/ ioi()	No	Yes	-	162	_	162		110		162
/usr/bin/rsync(*)			-	Yes	-	Yes	-	Yes	-	Yes
	No	Yes								
/usr/bin/runcon(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exect	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/rview(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/rvim(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/say(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/sbdidlaunch			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/sbreload	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	NO	Tes								
/usr/bin/scp(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/script			_	Yes	_	Yes	_	No	_	Yes
/ usi/ bin/ script	No	Yes	-	Tes	-	165	-	110	-	165
/usr/bin/sdiff			_	Yes	_	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/seg_addr_table(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/seg_hack(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/segedit(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/seq(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/sftp(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/sha1sum(*)	NT -	V	-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/sha224sum(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	110	1 es								

File	Ex	rists	Ope	nable	Read	dable	Writ	table	Exec	utable
-	Jailed	JB								
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/sha256sum(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/sha384sum(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/sha512sum(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/shred(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/shuf(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/size(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/slogin(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/socat(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
$/{ m usr/bin/sort(*)}$	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/split(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
m /usr/bin/sqlite3(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/ssh(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/ssh-add(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/ssh-agent(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/ssh-keygen(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	ЈВ
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/ssh-keyscan(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/stat(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/strings(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/strip(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/sudo(*)	No	Yes	-	No	-	No	-	No	-	Yes
/usr/bin/sudoedit(*)	No	Yes	-	No	-	No	-	No	-	Yes
/usr/bin/sum(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/svn(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/svnadmin(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/svndumpfilter(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/svnlook(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/svnserve(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/svnsync(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/svnversion(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/sw_vers	No	Yes	-	Yes	-	Yes	-	No	-	Yes

File	Ex	ists	Oper	nable	Read	lable	Writ	able	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/syslogoff(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/syslogon(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/tabs(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/tac(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/1101 /hin /hoil/*)	1,0	100	_	Yes	_	Yes		No		Yes
/usr/bin/tail(*)	No	Yes	-	ies	-	ies	-	No	-	ies
/usr/bin/talk(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/tar			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/tee(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/telnet(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/test(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/tftp(*)	- 10			Yes		Yes		No		Yes
/ asi / min/ titp(")	No	Yes	-	ies	-	ies	-	INO	-	ies
/usr/bin/tic			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/time			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{ m usr/bin/timeout(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/toe			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Wri	table	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	ЈВ
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/top(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/tput			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/tr(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/truncate(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/tset			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/tsort(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/tty(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/uicache			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/uiduid			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/uiopen			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/unexpand(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/unifdef(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/uniq(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/unlink(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/unlzma			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Оре	nable	Read	lable	Writ	table	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/unrar(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/unwinddump(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/unzip(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/unzipsfx(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/updatedb			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/uptime(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/urlclip(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/users(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/uudecode(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/uuencode(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/uuid}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/uuid-config(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/view}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/vim}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{ m usr/bin/vimdiff(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	lable	Writ	able	Exec	ıtable
-	Jailed	ЈВ	Jailed	ЈВ	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/vimtutor(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/wc(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/wget(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/which			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/who(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/whoami(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/whois(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	NO	res								
/usr/bin/write(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
	110	105								
/usr/bin/xar(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/ / ! /						77				77
/usr/bin/xargs	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/bin/xgettext(*)			_	Yes	_	Yes	_	No	_	Yes
,, sm, ageocae()	No	Yes		100		205		110		203
/usr/bin/xml2(*)			-	Yes	-	Yes	-	No	-	Yes
,	No	Yes								
/usr/bin/xml2-config(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/xmlcatalog(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/bin/xmllint(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Writ	able	Executable	
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/bin/xmlwf(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/xxd}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/yes(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/bin/zip}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{usr/bin/zipcloak(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{usr/bin/zipnote(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/ usr/bin/zipsplit(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/sbin/ac}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{usr/sbin/accton}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/sbin/arp(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/sbin/chown}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/sbin/chroot(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/usr/sbin/dev_mkdb(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{usr/sbin/edquota(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{usr/sbin/fdisk(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Ex	ists	Ope	nable	Read	dable	Wri	able	Executable		
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	
-	-	-	-	-	-	-	-	-	-	-	
/usr/sbin/frida-server(*)			-	Yes	-	Yes	-	No	-	Yes	
	No	Yes									
/usr/sbin/ioalloccount(*)			-	Yes	-	Yes	-	No	-	Yes	
	No	Yes									
/ usr/sbin/ioclasscount (*)			-	Yes	-	Yes	-	No	-	Yes	
	No	Yes									
$/{usr/sbin/ioreg(*)}$			-	Yes	-	Yes	-	No	-	Yes	
	No	Yes									
$/\mathrm{usr/sbin/iostat}$			-	Yes	-	Yes	-	No	-	Yes	
	No	Yes									
/usr/sbin/mkfile			-	Yes	-	Yes	-	No	-	Yes	
	No	Yes									
$/\mathrm{usr/sbin/natd}(*)$			-	Yes	-	Yes	-	No	-	Yes	
	No	Yes									
$/\mathrm{usr/sbin/ndp}(*)$			-	Yes	-	Yes	-	No	-	Yes	
	No	Yes									
$/usr/sbin/pwd_mkdb$	NT-	Van	-	Yes	-	Yes	-	No	-	Yes	
	No	Yes									
$/\mathrm{usr/sbin/quot}(*)$	No	Yes	-	Yes	-	Yes	-	No	-	Yes	
	140	165									
$/\mathrm{usr/sbin/quotaon(*)}$	No	Yes	-	Yes	-	Yes	-	No	-	Yes	
/usr/sbin/repquota(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes	
/uon/ohin/ool-1/*\				V		V		NT -		V	
/usr/sbin/sshd(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes	
/usr/sbin/startupfiletool				Yes		Yes		No		Yes	
/ usr/sum/startupmetool	No	Yes	-	ies	-	ies	-	110	-	ies	
/usr/sbin/sysctl			_	Yes	-	Yes	-	No	_	Yes	
/ uor / sum/ systm	No	Yes	_	162	_	162	_	110	_	162	

File	Ex	ists	Oper	nable	Read	lable	Writ	able	Exec	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
$/{ m usr/sbin/tcpdump(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{usr/sbin/traceroute(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/sbin/traceroute6 (*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/sbin/trpt(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/sbin/update			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/sbin/vifs}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/sbin/vipw}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/sbin/visudo}(*)$			-	No	-	No	-	No	-	Yes
	No	Yes								
$/{\rm usr/sbin/vsdbutil(*)}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{\rm usr/sbin/zdump}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/sbin/zic}$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/ usr/libexec/MSUnrestrictProcess(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/\mathrm{usr/libexec/as}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/libexec/awk(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/ usr/libexec/bigram			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

	File	Ex	rists	Ope	nable	Read	lable	Writ	able	Executable		
	-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	
No Yes	-	-	-	-	-	-	-	-	-	-	-	
	/usr/libexec/code			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
	/usr/libexec/cydia			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
Vast Vast	/usr/libexec/fingerd(*)			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
Vest Vest	/usr/libexec/frcode			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
Vest Vest	$/\mathrm{usr/libexec/ftpd(*)}$			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
Ves	$/\mathrm{usr/libexec/gdb}(*)$			-	Yes	-	Yes	-	Yes	-	Yes	
No Yes		No	Yes									
	/usr/libexec/git-core(*)			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
/usr/libexec/inetd(*) No Yes - Yes - Yes - No - No - No Yes /usr/libexec/kdumpd(*) No Yes - Yes - Yes - No - No - No - No Yes /usr/libexec/migcom(*) No Yes - Yes - Yes - No - N	$/\mathrm{usr/libexec/gnupg}$			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
/usr/libexec/kdumpd(*)	$/\mathrm{usr/libexec/inetd(*)}$			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
/usr/libexec/migcom(*) No Yes - Yes - Yes - No - /usr/libexec/rexecd(*) No Yes - Yes - Yes - No - /usr/libexec/rexecd(*) No Yes - Yes - No -	$/\mathrm{usr/libexec/kdumpd(*)}$			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
/usr/libexec/rexecd(*) No Yes - Yes - Yes - No - /usr/libexec/rlogind(*) - Yes - Yes - No -	/usr/libexec/migcom(*)			-	Yes	-	Yes	-	No	-	Yes	
No Yes		No	Yes									
/usr/libexec/rlogind(*) - Yes - Yes - No -	$/\mathrm{usr/libexec/rexecd}(*)$			-	Yes	-	Yes	-	No	-	Yes	
		No	Yes									
INO Yes	$/\mathrm{usr/libexec/rlogind(*)}$	X.T	37	-	Yes	-	Yes	-	No	-	Yes	
		No	Yes									
/usr/libexec/rmt	/usr/libexec/rmt			-	Yes	-	Yes	-	No	-	Yes	

File	Ex	ists	Oper	nable	Read	dable	Writ	table	Exec	utable
-	Jailed	JB	Jailed	JB	Jailed	ЈВ	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/libexec/rocketd(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/libexec/rshd(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/libexec/ssh-pkcs11-helper(*)			-	Yes	-	Yes	-	No	-	Yes
/usr/libexec/sshd-keygen-wrapper(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/libexec/substrate(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/libexec/sudo_noexec.dylib(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/libexec/sudo_noexec.la(*)	No	Yes	-	Yes	-	Yes	-	No	-	No
/usr/libexec/telnetd(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/libexec/tftpd(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/libexec/uucpd(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/libexec/vndevice(*)	No No	Yes	-	Yes	-	Yes	-	No	-	Yes
/.cydia_no_stash	No	Yes	-	Yes	-	Yes	-	No	-	No
/etc/ssh(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes
/usr/local/bin(*)	No	Yes	-	Yes	-	Yes	-	No	-	Yes

File	Ex	ists	Ope	nable	Read	dable	Writ	table	Exect	ıtable
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/ usr/local/bin/CSS tashed App Executable (*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/MobileSubstrate			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/LaunchDaemons			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/Library/LaunchDaemons/com.openssh.sshd.plist(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/Library/LaunchDaemons/com.rpetrich.rocketbootstrapd.plist(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/Library/Launch Daemons/com.saurik. Cydia. Startup. plist	No	Yes	-	Yes	-	Yes	-	No	-	No
	110	163								
/Library/Launch Daemons/io.pangu 93.loader.plist	No	Yes	-	Yes	-	Yes	-	No	-	No
/Library/LaunchDaemons/re.frida.server.plist(*)			_	Yes	_	Yes	_	No	_	No
, and y and a second of the se	No	Yes		165		100		110		110
/System/Library/LaunchDaemons/com.bigboss.sbsettingsd.plist(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/usr/bin/chpass(*)	No	-	-	-	-	-	-	-	-	-
/usr/lib/libcycript.0.dylib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/usr/lib/libcycript.cy(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/usr/lib/libcycript.db(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/usr/lib/libcycript.dylib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

File	Exists		Орег	nable	Read	lable	Writable		Executable	
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-	-	-
/usr/lib/libcycript.jar(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/var/stash(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/var/stash/usrbin(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/var/stash/usrlib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/var/stash/usrlib/libcycript.cy(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/var/stash/usrlib/libcycript.db(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/var/stash/usrlib/libcycript.dylib(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
/var/stash/usrlib/libcycript.jar(*)			-	Yes	-	Yes	-	No	-	No
	No	Yes								
/var/db/stash(*)			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								
$/{ m Applications}/{ m Terminal.app}(*)$			-	Yes	-	Yes	-	No	-	Yes
	No	Yes								

7 Checking file permissions - II

Extension to the aforementioned tables/files.

File	Sticky	Link Bit	Mo	ode	Perm	issions	Size		
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB	
-	-	-	-	-	-	-	-	-	
/(9.21)	t	t	41775	41775	drwxrwxr-t	drwxrwxr-t			
							748	884	
/(9.33)	t	t	41775	41775	drwxrwxr-t	drwxrwxr-t			
							748	918	
/(10.02)	No	-	40755	-	drwxr-xr-x	-	748	-	
$/{ m Applications}(9.21\mid 9.33)$	No	No	40775	40775	drwxrwxr-x	drwxrwxr-x	-	-	
$/{ m Applications}(10.02)$	No	-	40775	-	drwxrwxr-x	-	-	-	
/Developer	t	t	41775	41775	drwxrwxr-t	drwxrwxr-t	-	-	
/Library	No	No	40775	40775	drwxrwxr-x	drwxrwxr-x	-	-	
$/\mathrm{System}(9.21\mid 9.33)$	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	102	102	
$/{ m System}(10.02)$	No	-	40755	-	drwxr-xr-x	-	136	-	
$/\mathrm{User}(*)$	-	1	-	120755	-	lrwxr-xr-x	-	11	
/bin	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x			
							136	2006+	
/boot	-	No	-	40755	-	drwxr-xr-x	-	68	
/cores	t	t	41775	41775	drwxrwxr-t	drwxrwxr-t	68	68	
/dev	No	No	40555	40555	dr-xr-xr-x	dr-xr-xr-x	-	-	
/etc	1	1	120755	120755	lrwxr-xr-x	lrwxr-xr-x	11	11	

File	Sticky	Link Bit	Mo	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/lib	-	No	-	40755	-	drwxr-xr-x	-	68
/mnt	-	No	-	40755	-	drwxr-xr-x	-	68
/private(9.21 9.33)	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	136	136
/private(10.02)	No	-	40755	-	drwxr-xr-x	-	170	-
/sbin	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x		
							442	612+
$/{ m tmp}$	1	1	120755	120755	lrwxr-xr-x	lrwxr-xr-x	15	15
/usr	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/var	1	1	120755	120755	lrwxr-xr-x	lrwxr-xr-x	11	11
/var/mobile/Containers/Data/Application	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/var/mobile/Containers/Data/Application/Other-App	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/var/mobile/Containers/Bundle/Application(9.21)	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/var/mobile/Containers/Bundle/Application/Other-App (9.21)	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
$/{ m var/containers/Bundle/Application(9.33)}$	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
$/ {\rm var/containers/Bundle/Application/Other-App} (9.33)$	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/var/containers/Bundle/Application(10.02)	No	-	40755	-	drwxr-xr-x	-	-	-

File	Sticky	Link Bit	М	ode	Perm	issions	Size	
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/ var/containers/Bundle/Application/Other-App (10.02)	No	-	40755	-	drwxr-xr-x	-	-	-
/private/var/keybags	No	No	40700	40700	drwx	drwx	136	136
/Library/Keychains	1	1	120755	120755	lrwxr-xr-x	lrwxr-xr-x	24	24
/private/var/Keychains	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/private/var/Keychains/keychain-2.db (9.21)	No	No						
			1	100600	——х	-rw	24	360448
/private/var/Keychains/keychain-2.db (9.33)	No	No						
			1	100600	——х	-rw	24	1536000
/private/var/Keychains/keychain-2.db (10.02)	No	-	1	-	——х	-	4494204240	-
/private/var/Keychains/TrustStore.sqlite3 (9.21)	No	No						
			1	100600	——х	-rw	24	16384
/private/var/Keychains/TrustStore.sqlite3 (9.33)	No	No						
			1	100600	——х	-rw	24	28672
/private/var/Keychains/TrustStore.sqlite3 (10.02)	No	-	1	-	——х	-	4494204240	-
/private/var	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
$/{\rm dev}/{\rm disk0s1s1} (9.21 \mid 9.33)$	No	No						
			1	60640	——х	-rw-r	24	0
$/\mathrm{dev}/\mathrm{disk0s1s1}(10.02)$	No	-	1	-	——х	-	4494204240	-
$/{\rm dev}/{\rm disk0s1s2} (9.21 \mid 9.33)$	No	No						
			1	60640	——х	-rw-r	24	0
$/\mathrm{dev}/\mathrm{disk0s1s2}(10.02)$	No	-	1	-	x	-	4494204240	-

File	Sticky	Link Bit	М	ode	Permi	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{ m dev/disk4}(9.33)$	No	No						
			1	60640	——х	-rw-r	24	0
$/{ m dev/disk4}(10.02)$	No	-	1	-	x	-	4494204240	-
/etc/fstab(9.21 9.33)	No	No						
			1	100644	x	-rw-r-r-	24	67
$/{ m etc/fstab}(10.02)$	No	-	1	-	x	-	4494204240	-
/usr/bin	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/usr/sbin	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/Library/Ringtones	No	No	40775	40775	drwxrwxr-x	drwxrwxr-x	1836	1836
/Library/Wallpaper(9.21 9.33)	No	No	40775	40775	drwxrwxr-x	drwxrwxr-x	136	136
/Library/Wallpaper(10.02)	No	-	40775	-	drwxrwxr-x	-	170	-
/usr/libexec	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/usr/share	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x		
							442	646+
$/{ m bin/df}(9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	34768
$ ho ext{bin/df}(10.02)$	No	-	1	-	x	-	4494204240	-
/bin/ps(9.21 9.33)	No	No						
			1	104755	——х	-rwxr-xr-x	24	54320
$/\mathrm{bin/ps}(10.02)$	No	-	1	-	x	-	4494204240	-

File	Sticky	Link Bit	Me	ode	Permi	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/\mathrm{sbin}/\mathrm{fsck}(9.21\mid 9.33)$	No	No						
			1	100555	——х	-r-xr-xr-x	24	35440
$/\mathrm{sbin}/\mathrm{fsck}(10.02)$	No	-	1	-	x	-	4494204240	-
/sbin/fsck_exfat	1	1	-	120755	-	lrwxr-xr-x	66	66
/sbin/fsck_hfs	1	1	120755	120755	lrwxr-xr-x	lrwxr-xr-x	62	62
$/\mathrm{sbin}/\mathrm{fsck}_\mathrm{msdos}$	1	1	-	120755	-	lrwxr-xr-x	66	66
$/\mathrm{sbin}/\mathrm{fstyp}(9.21\mid 9.33)$	No	No						
			1	100555	——х	-r-xr-xr-x	24	34048
$/{ m sbin}/{ m fstyp}(10.02)$	No	-	1	-	——х	-	4494204240	-
/sbin/fstyp_hfs(9.21 9.33)	No	No						
			1	100555	—х	-r-xr-xr-x	24	34448
$/{ m sbin/fstyp_hfs(10.02)}$	No	-	1	-	x	-	4494204240	-
$/{ m sbin/launchd}(9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	290448
m /sbin/launchd(9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	307600
m /sbin/launchd(10.02)	No	-	1	-	——х	-	4494204240	-
$/\mathrm{sbin/mount}(9.21\mid 9.33)$	No	No						
			1	100555	——х	-r-xr-xr-x	24	35328
$/{ m sbin/mount}(10.02)$	No	-	1	-	x	-	4494204240	-
$/{\rm sbin/mount_hfs}$	1	1	120755	120755	lrwxr-xr-x	lrwxr-xr-x	63	63

File	Sticky	Link Bit	M	ode	Permi	ssions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/sbin/newfs_hfs	1	1	120755	120755	lrwxr-xr-x	lrwxr-xr-x	63	63
/sbin/pfctl(9.21 9.33)	No	No						
			1	100555	x	-r-xr-xr-x	24	203520
/sbin/pfctl(10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/bin/brctl(9.21)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	170736
$/{ m usr/bin/brctl}(9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	187440
/usr/bin/brctl(10.02)	No	-	1	-	x	-	4494204240	-
$/ {\rm usr/bin/powerlogHelperd} (9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	35936
$/ {\rm usr/bin/powerlogHelperd} (9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	36160
$/{ m usr/bin/powerlogHelperd(10.02)}$	No	-	1	-	x	-	4494204240	-
$/{ m usr/bin/powerlogd(9.21)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	36192
$/{ m usr/bin/powerlogd} (9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	36432
$/{ m usr/bin/powerlogd(10.02)}$	No	-	1	-	x	-	4494204240	-
$/ \text{usr/bin/simulatecrash} (9.21 \mid 9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	34288
$/{ m usr/bin/simulatecrash(10.02)}$	No	-	1	-	——х	-	4494204240	-
/ usr/bin/sysdiagnose (9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	342560

File	Sticky	Link Bit	Me	ode	Permissions		Size	
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/usr/bin/sysdiagnose(9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	386160
$/{ m usr/bin/sysdiagnose(10.02)}$	No	-	1	-	x	-	4494204240	-
/usr/bin/taskinfo(9.21 9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	35648
$/{ m usr/bin/taskinfo(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/\mathrm{usr/bin/vm_stat}(9.21\mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	34496
$/\mathrm{usr/bin/vm_stat}(10.02)$	No	-	1	-	——х	-	4494204240	-
$/\mathrm{usr/bin/zprint}(9.21\mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	36816
$/{ m usr/bin/zprint(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/\mathrm{usr/sbin/absd}(9.21\mid 9.33)$	No	No						
			1	100555	——х	-r-xr-xr-x	24	583552
/usr/sbin/absd(10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/sbin/addNetworkInterface} (9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	40160
/ usr/sbin/addNetworkInterface (9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	40176
/ usr/sbin/addNetworkInterface (10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/sbin/aslmanager} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	75904
m /usr/sbin/aslmanager (9.33)	No	No						
			1	100755	x	-rwxr-xr-x	24	75952

File	Sticky	Link Bit	M	ode	Permi	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{ m usr/sbin/aslmanager}(10.02)$	No	-	1	-	x	-	4494204240	-
/usr/sbin/BTAvrcp(9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	133408
/usr/sbin/BTAvrcp(9.33)	No	No						
			1	100755	x	-rwxr-xr-x	24	134368
/usr/sbin/BTAvrcp(10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/sbin/BTLEServer} (9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	291664
$/{ m usr/sbin/BTLEServer} (9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	275168
$/{ m usr/sbin/BTLEServer(10.02)}$	No	-	1	-	x	-	4494204240	-
$/{ m usr/sbin/BTMap} (9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	57328
$/{ m usr/sbin/BTMap}(9.33)$	No	No	_	400				~=000
			1	100755	x	-rwxr-xr-x	24	57280
$/\mathrm{usr/sbin/BTMap}(10.02)$	No	-	1	-	x	-	4494204240	-
$/\mathrm{usr/sbin/BTPbap}(9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	57568
$/{ m usr/sbin/BTPbap} (9.33)$	No	No	1	100755			24	57504
					х	-rwxr-xr-x		
m /usr/sbin/BTPbap(10.02)	No	-	1	-	x	-	4494204240	-
$/{ m usr/sbin/BTServer}(9.21)$	No	No	1	100755		_pu/vp_vp v	24	2455392
			1	100199	х	-rwxr-xr-x	24	2400082
$/{ m usr/sbin/BTServer}(9.33)$	No	No	1	100755	x	-rwxr-xr-x	24	2489632
			1		1	A		

File	Sticky	Link Bit	Мо	ode	Permi	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
ho = - (10.02)	No	-	1	-	x	-	4494204240	-
/usr/sbin/BlueTool(9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	6215888
$/{ m usr/sbin/BlueTool}(9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	6874512
$/{ m usr/sbin/BlueTool(10.02)}$	No	-	1	-	x	-	4494204240	-
m /usr/sbin/cfprefsd(9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	33424
$/{ m usr/sbin/cfprefsd}(9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	33760
m /usr/sbin/cfprefsd(10.02)	No	-	1	-	——х	-	4494204240	-
$ ho = -\sqrt{\mathrm{usr/sbin/distnoted}(9.21 \mid 9.33)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	59280
$/{ m usr/sbin/distnoted} (10.02)$	No	-	1	-	x	-	4494204240	-
	No	No						
			1	100755	x	-rwxr-xr-x	24	53200
$/{ m usr/sbin/file coordinationd (10.02)}$	No	-	1	-	x	-	4494204240	-
$spin/spin/ipconfig(9.21 \mid 9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	78816
/usr/sbin/ipconfig(10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/sbin/mDNSResponder(9.21)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	746048
/ usr/sbin/mDNSResponder (9.33)	No	No						764560
			1	100755	——х	-rwxr-xr-x	24	

File	Sticky	Link Bit	M	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{ m usr/sbin/mDNSResponder(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/ usr/sbin/mDNSResponderHelper (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	60000
$/ {\rm usr/sbin/mDNSResponderHelper} (10.02)$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/sbin/mediaserverd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	148256
$/{ m usr/sbin/mediaserverd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	148928
$/{ m usr/sbin/mediaserverd(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/ usr/sbin/notifyd (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	94176
$/{ m usr/sbin/notifyd(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/\mathrm{usr/sbin/nvram}(9.21\mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	36896
$/{ m usr/sbin/nvram}(10.02)$	No	-	1	-	——х	-	4494204240	-
$/\mathrm{usr/sbin/pppd}(9.21\mid 9.33)$	No	No						
			1	100555	——х	-r-xr-xr-x	24	351328
$/{ m usr/sbin/pppd}(10.02)$	No	-	1	-	x	-	4494204240	-
$/{ m usr/sbin/racoon(9.21)}$	No	No						
			1	100555	x	-r-xr-xr-x	24	845664
$/{ m usr/sbin/racoon(9.33)}$	No	No						
			1	100555	——х	-r-xr-xr-x	24	862352
$/\mathrm{usr/sbin/racoon}(10.02)$	No	-	1	-	——х	_	4494204240	-

File	Sticky	Link Bit	M	ode	Permi	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/usr/sbin/rtadvd(9.21 9.33)	No	No						
			1	100555	x	-r-xr-xr-x	24	72784
m /usr/sbin/rtadvd(10.02)	No	-	1	-	——х	-	4494204240	-
$/\mathrm{usr/sbin/scselect}(9.21\mid 9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	35600
$/{ m usr/sbin/scselect(10.02)}$	No	-	1	-	x	-	4494204240	-
/usr/sbin/scutil(9.21 9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	226560
m /usr/sbin/scutil(10.02)	No	-	1	-	x	-	4494204240	-
/usr/sbin/spindump(9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	218512
$/{ m usr/sbin/spindump} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	218480
$/{ m usr/sbin/spindump} (10.02)$	No	-	1	-	x	-	4494204240	-
m /usr/sbin/syslogd(9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	149792
$/{ m usr/sbin/syslogd}(9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	149856
m /usr/sbin/syslogd(10.02)	No	-	1	-	x	-	4494204240	-
/usr/sbin/wifid(9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	1539968
m /usr/sbin/wifid(9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	1556672
m /usr/sbin/wifid(10.02)	No	-	1	-	x	-	4494204240	-

File	Sticky	Link Bit	Me	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{\rm usr/sbin/wirelessproxd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	347424
$/{ m usr/sbin/wirelessproxd}(9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	397120
$/{ m usr/sbin/wirelessproxd} (10.02)$	No	-	1	-	——х	-	4494204240	-
/ usr/sbin/WirelessRadioManagerd (9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	880192
/ usr/sbin/WirelessRadioManagerd (9.33)	No	No						
			1	100755	х	-rwxr-xr-x	24	949408
/ usr/sbin/WirelessRadioManagerd (10.02)	No	-	1	-	х	-	4494204240	-
/ usr/libexec/BackupAgent (9.21)	No	No						
			1	100755	х	-rwxr-xr-x	24	171968
/ usr/libexec/BackupAgent (9.33)	No	No	1	100755	x	-rwxr-xr-x	24	172048
(F) A (410.00)	3 T							
/usr/libexec/BackupAgent(10.02)	No	-	1	-	x	-	4494204240	-
/usr/libexec/BackupAgent2(9.21)	No	No	1	100755	x	-rwxr-xr-x	24	799728
//lil/D	NI-	N-	_	100100	-	1 1134 34 34		100120
/usr/libexec/BackupAgent2(9.33)	No	No	1	100755	x	-rwxr-xr-x	24	816704
/usr/libexec/BackupAgent2(10.02)	No	-	1	-	x	-	4494204240	-
/usr/libexec/CrashHousekeeping(9.21)	No	No						
, as , notice, crammous excepting (0.21)	110	110	1	100755	x	-rwxr-xr-x	24	38512
/usr/libexec/CrashHousekeeping(9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	38960
/ usr/libexec/CrashHousekeeping (10.02)	No	-	1	-	——х	-	4494204240	-

File	Sticky	Link Bit	M	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/ usr/libexec/DuetHeuristic-BM (9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	128464
ho = ho / usr/libexec/DuetHeuristic-BM(9.33)	No	No						
			1	100755	x	-rwxr-xr-x	24	128592
/ usr/libexec/DuetHeuristic-BM(10.02)	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	——х	-rwxr-xr-x	24	36496
/usr/libexec/FSTaskScheduler(10.02)	No	-	1	-	——х	-	4494204240	-
/ usr/libexec/FinishRestoreFromBackup (9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	55488
$/{\rm usr/libexec/FinishRestoreFromBackup} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	55552
/ usr/libexec/FinishRestoreFromBackup (10.02)	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/MobileGestaltHelper (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	36720
/ usr/libexec/MobileGestaltHelper (10.02)	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	——х	-rwxr-xr-x	24	35552
/ usr/libexec/NANDTaskScheduler (10.02)	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/OTAPKIAssetTool(9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	57776
/ usr/libexec/OTAPKIAssetTool(10.02)	No	-	1	-	——х	-	4494204240	-
$/ {\rm usr/libexec/OTATaskingAgent} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	39200

File	Sticky	Link Bit	М	ode	Perm	issions	Siz	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/ usr/libexec/OTATaskingAgent (9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	39136
/ usr/libexec/OTATaskingAgent (10.02)	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/PreboardService (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	36224
/usr/libexec/PreboardService(10.02)	No	-	1	-	——х	-	4494204240	-
/ usr/libexec/ProxiedCrashCopier (9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	126896
/ usr/libexec/ProxiedCrashCopier (9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	126912
/ usr/libexec/ProxiedCrashCopier (10.02)	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/PurpleReverseProxy(9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	60160
/ usr/libexec/PurpleReverseProxy (10.02)	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	——х	-rwxr-xr-x	24	34048
/ usr/libexec/Safari Cloud History Push Agent (10.02)	No	-	1	-	——х	-	4494204240	-
/ usr/libexec/SyncAgent (9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	61712
/usr/libexec/SyncAgent(9.33)	No	No		100777			0.1	61000
			1	100755	x	-rwxr-xr-x	24	61808
/usr/libexec/SyncAgent(10.02)	No	-	1	-	——х	-	4494204240	-
/ usr/libexec/UserEventAgent (9.21)	No	No		105===				
			1	100755	——х	-rwxr-xr-x	24	42448

File	Sticky	Link Bit	M	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/ usr/libexec/UserEventAgent (9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	42832
/ usr/libexec/UserEventAgent(10.02)	No	-	1	-	——х	-	4494204240	-
/usr/libexec/adid(9.21)	No	No						
			1	100555	——х	-r-xr-xr-x	24	1175360
$/{ m usr/libexec/adid(9.33)}$	No	No						
			1	100555	x	-r-xr-xr-x	24	1176704
$/{ m usr/libexec/adid(10.02)}$	No	-	1	-	——х	-	4494204240	-
m /usr/libexec/afcd(9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	39584
$/{ m usr/libexec/afcd(9.33)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	40336
$/{ m usr/libexec/afcd(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/aitd(9.21 \mid 9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	202032
$/{\rm usr/libexec/aitd}(10.02)$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/amfid (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	37568
$/{ m usr/libexec/amfid(10.02)}$	No	-	1	-	x	-	4494204240	-
/ usr/libexec/assertiond (9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	153712
$/{ m usr/libexec/assertiond} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	170176
$/{ m usr/libexec/assertiond} (10.02)$	No	-	1	-	x	-	4494204240	-

File	Sticky	Link Bit	M	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JВ
-	-	-	-	-	-	-	-	-
$/ \mathrm{usr/libexec/atc} (9.21 \mid 9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	37632
$/{ m usr/libexec/atc(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/atwakeup (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	39424
$/{ m usr/libexec/atwakeup(10.02)}$	No	-	1	-	x	-	4494204240	-
$/{ m usr/libexec/backboardd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	474384
/ usr/libexec/backboardd (9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	527952
$/{ m usr/libexec/backboardd} (10.02)$	No	-	1	-	——х	-	4494204240	-
/ usr/libexec/biometrickitd (9.21 TouchID)	No	No						
			1	100755	——х	-rwxr-xr-x	24	314512
/ usr/libexec/biometrickitd (9.33 TouchID)	No	No	1	100755	——х	-rwxr-xr-x	24	314928
(1)								
/ usr/libexec/biometrickitd (10.02 TouchID)	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/bootpd (9.21 \mid 9.33)$	No	No	1	100755	——х	-rwxr-xr-x	24	118400
/ /// // // //// /// //// ////	NI							
/usr/libexec/bootpd(10.02)	No	-	1	-	——х	-	4494204240	-
$/\mathrm{usr/libexec/bubbled}(9.33)$	No	No	1	100755	——х	-rwxr-xr-x	24	73584
$/{ m usr/libexec/bubbled(10.02)}$	No	_	1	-	x	_	4494204240	_
			1	-	х	-	74342U424U	-
$/ usr/libexec/cc_fips_test(9.21)$	No	No	1	100755	x	-rwxr-xr-x	24	34352

File	Sticky	Link Bit	Me	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/usr/libexec/cc_fips_test(9.33)	No	No						
			1	100755	x	-rwxr-xr-x	24	34368
/usr/libexec/cc_fips_test(10.02)	No	-	1	-	——х	-	4494204240	-
/usr/libexec/checkpointd(9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	350448
$/ {\rm usr/libexec/checkpointd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	350464
/usr/libexec/checkpointd(10.02)	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	——х	-rwxr-xr-x	24	94320
/usr/libexec/companion_proxy(9.33)	No	No						
			1	100755	x	-rwxr-xr-x	24	94688
/usr/libexec/companion_proxy(10.02)	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	——х	-rwxr-xr-x	24	293456
$/{ m usr/libexec/configd}(10.02)$	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	——х	-rwxr-xr-x	24	33952
$/ {\rm usr/libexec/corecaptured} (10.02)$	No	-	1	-	x	-	4494204240	-
m /usr/libexec/coreduetd (9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	1120944
$/{ m usr/libexec/coreductd}(9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	1138032
$/{ m usr/libexec/coreductd} (10.02)$	No	-	1	-	——х	-	4494204240	-

File	Sticky	Link Bit	Мо	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/usr/libexec/crash_mover(9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	57920
$/ {\rm usr/libexec/crash_mover(9.33)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	58224
$/ usr/libexec/crash_mover(10.02)$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/demod(9.21)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	285312
$/{ m usr/libexec/demod(9.33)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	385888
$/{ m usr/libexec/demod(10.02)}$	No	-	1	-	x	-	4494204240	-
$/{ m usr/libexec/demod_helper(9.21)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	113568
$/{ m usr/libexec/demod_helper(9.33)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	196656
$/ {\rm usr/libexec/demod_helper} (10.02)$	No	-	1	-	x	-	4494204240	-
$/{\rm usr/libexec/dhcpd} (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	603216
$/{ m usr/libexec/dhcpd} (10.02)$	No	-	1	-	x	-	4494204240	-
$/ usr/libexec/diagnosticd (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	79568
$/ {\rm usr/libexec/diagnosticd} (10.02)$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/duetexpertd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	37536
$/{ m usr/libexec/duetexpertd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	37744

File	Sticky	Link Bit	Me	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/ usr/libexec/duet expert d (10.02)	No	-	1	-	x	-	4494204240	-
/usr/libexec/findmydeviced(9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	689472
/ usr/libexec/find mydeviced (9.33)	No	No						
			1	100755	x	-rwxr-xr-x	24	1548976
/usr/libexec/findmydeviced(10.02)	No	-	1	-	x	-	4494204240	-
$/{ m usr/libexec/fmfd}(9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	452800
$/{ m usr/libexec/fmfd}(9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	469280
m /usr/libexec/fmfd(10.02)	No	-	1	-	x	-	4494204240	-
$/{ m usr/libexec/fseventsd} (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	91536
$/{ m usr/libexec/fseventsd(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/ftp-proxy(9.21 \mid 9.33)$	No	No						
			1	100555	——x	-r-xr-xr-x	24	56544
$/{ m usr/libexec/ftp ext{-}proxy(10.02)}$	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	x	-rwxr-xr-x	24	74080
/ usr/libexec/game controllerd (10.02)	No	-	1	-	x	-	4494204240	-
$/{ m usr/libexec/gamed(9.21)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	2442384
$/{ m usr/libexec/gamed}(9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	2442480

File	Sticky	Link Bit	Мо	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{ m usr/libexec/gamed(10.02)}$	No	-	1	-	x	-	4494204240	-
$/ {\rm usr/libexec/hangreporter} (9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	109776
$/ {\rm usr/libexec/hangreporter} (10.02)$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/hangtracerd}(9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	148064
$/{ m usr/libexec/hangtracerd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	149856
/ usr/libexec/hangtracerd (10.02)	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/hostapd (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	377280
$/{ m usr/libexec/hostapd} (10.02)$	No	-	1	-	x	-	4494204240	-
$/ usr/libexec/idamd (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	35808
$ ho = - \sqrt{{ m usr/libexec/idamd(10.02)}}$	No	-	1	-	——х	-	4494204240	-
/usr/libexec/ifccd(9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	1057968
$/{ m usr/libexec/ifccd(10.02)}$	No	-	1	-	х	-	4494204240	-

File	Sticky	Link Bit	Me	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/usr/libexec/init_data_protection	1	1	120755	120755	lrwxr-xr-x	lrwxr-xr-x	7	7
$/{\rm usr/libexec/installd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	901040
$/ {\rm usr/libexec/installd} (9.33)$	No	No						
			1	100755	—х	-rwxr-xr-x	24	885328
/usr/libexec/installd(10.02)	No	-	1	-	——х	-	4494204240	-
$/{\rm usr/libexec/ioupsd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	40784
$/{\rm usr/libexec/ioupsd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	40848
$/ {\rm usr/libexec/ioupsd} (10.02)$	No	-	1	-	——х	-	4494204240	-
$/{\rm usr/libexec/keybagd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	117424
$/{\rm usr/libexec/keybagd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	308240
/ usr/libexec/keybagd (10.02)	No	-	1	-	——х	-	4494204240	-
$/{\rm usr/libexec/languageassetd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	56720
/ usr/libexec/language as setd (9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	56592
/ usr/libexec/language as setd (10.02)	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	——х	-rwxr-xr-x	24	37376
$/ {\rm usr/libexec/limitadtrackingd} (10.02)$	No	-	1	-	——х	-	4494204240	-

File	Sticky	Link Bit	Me	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/usr/libexec/locationd(9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	14865680
$/{ m usr/libexec/locationd} (9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	14977328
$/{ m usr/libexec/locationd} (10.02)$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/lockbot(9.21)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	74416
$/{ m usr/libexec/lockbot(9.33)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	74464
/usr/libexec/lockbot(10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/lockdownd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	685904
$/{ m usr/libexec/lockdownd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	686544
$/{ m usr/libexec/lockdownd} (10.02)$	No	-	1	-	х	-	4494204240	-
/ usr/libexec/logd(9.21 9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	36144
/usr/libexec/logd(10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/lsd(9.21)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	34496
$/{ m usr/libexec/lsd(9.33)}$	No	No						
			1	100755	х	-rwxr-xr-x	24	34896
$/{ m usr/libexec/lsd(10.02)}$	No	-	1	-	——х	-	4494204240	-
m /usr/libexec/lskdd(9.21)	No	No						
			1	100555	x	-r-xr-xr-x	24	7071984

File	Sticky	Link Bit	Mo	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$ ho = - (-1)^{-1} / (-1)^{-1$	No	No						
			1	100555	x	-r-xr-xr-x	24	7055872
$/{\rm usr/libexec/lskdd}(10.02)$	No	-	1	-	x	-	4494204240	-
$ ho = /{ m usr/libexec/lskdmsed(9.21)}$	No	No						
			1	100555	x	-r-xr-xr-x	24	5061136
$/{\rm usr/libexec/lskdmsed(9.33)}$	No	No						
			1	100555	——х	-r-xr-xr-x	24	5045008
/ usr/libexec/lskdmsed (10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/mailq(9.33)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	128064
$/{ m usr/libexec/mailq(10.02)}$	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	——х	-rwxr-xr-x	24	81072
	No	No						
			1	100755	x	-rwxr-xr-x	24	81120
/usr/libexec/mc_mobile_tunnel(10.02)	No	-	1	-	x	-	4494204240	-
$/{\rm usr/libexec/misagent}(9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	41488
$/{\rm usr/libexec/misagent} (9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	41552
$/{ m usr/libexec/misagent(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/misd(9.33)}$	No	No						
			1	100555	x	-r-xr-xr-x	24	206896
$/{ m usr/libexec/misd(10.02)}$	No	-	1	-	x	-	4494204240	-

File	Sticky	Link Bit	M	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{ m usr/libexec/mmaintenanced(9.21)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	61856
$/{ m usr/libexec/mmaintenanced} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	65264
$/{ m usr/libexec/mmaintenanced(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/mobile_assertion_agent(9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	38128
$/ usr/libexec/mobile_assertion_agent (10.02)$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/mobile_diagnostics_relay (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	58368
$/ usr/libexec/mobile_diagnostics_relay(10.02)$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/mobile_file_relay (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	73504
/usr/libexec/mobile_file_relay(10.02)	No	-	1	-	x	-	4494204240	-
$/ usr/libexec/mobile_house_arrest (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	37360
$/ usr/libexec/mobile_house_arrest(9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	37408
/usr/libexec/mobile_house_arrest(10.02)	No	-	1	-	x	-	4494204240	-
$/ usr/libexec/mobile_installation_proxy(9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	56464
$/ usr/libexec/mobile_installation_proxy(9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	56992
$/ usr/libexec/mobile_installation_proxy(10.02)$	No	-	1	-	x	-	4494204240	-

File	Sticky	Link Bit	Me	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JВ	Jailed	JB
-	-	-	-	-	-	-	-	-
/usr/libexec/mobile_obliterator(9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	192192
$/{\rm usr/libexec/mobile_obliterator(9.33)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	192096
/usr/libexec/mobile_obliterator(10.02)	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	——х	-rwxr-xr-x	24	36400
$/ usr/libexec/mobile_storage_proxy(10.02)$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/mobileactivationd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	1429424
/ usr/libexec/mobile activationd (10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/mobileassetd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	343808
$/ {\rm usr/libexec/mobileassetd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	343792
$/ {\rm usr/libexec/mobileassetd} (10.02)$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/mtmergeprops (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	38400
$/ {\rm usr/libexec/mtmergeprops} (10.02)$	No	-	1	-	——х	-	4494204240	-
/usr/libexec/neagent(9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	167184
$/{ m usr/libexec/neagent(9.33)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	167280
$/{ m usr/libexec/neagent(10.02)}$	No	-	1	-	——х	-	4494204240	-

File	Sticky	Link Bit	М	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{ m usr/libexec/nehelper(9.21)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	167184
/ usr/libexec/nehelper (9.33)	No	No	1	100755	——х	-rwxr-xr-x	24	184640
$/{ m usr/libexec/nehelper(10.02)}$	No	-	1	-	x	-	4494204240	-
/usr/libexec/nesessionmanager(9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	515296
/ usr/libexec/nesession manager (9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	532144
/ usr/libexec/nesession manager (10.02)	No	-	1	-	х	-	4494204240	-
/ usr/libexec/nfcd (9.21 TouchID)	No	No						
			1	100755	——х	-rwxr-xr-x	24	395536
/ usr/libexec/nfcd (9.33 TouchID)	No	No	1	100755	x	-rwxr-xr-x	24	395680
$/{ m usr/libexec/nfcd(10.02 TouchID)}$	No	-	1	-	x		4494204240	-
$/\mathrm{usr/libexec/nlcd}(9.21\mid 9.33)$	No	No						
,,,(<u>-</u>)			1	100755	x	-rwxr-xr-x	24	55440
$/{ m usr/libexec/nlcd(10.02)}$	No	-	1	-	x	-	4494204240	-
$/ usr/libexec/notification_proxy(9.21 \mid 9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	38032
$/ usr/libexec/notification_proxy(10.02)$	No	-	1	-	——х	-	4494204240	-
/ usr/libexec/nsurlsessiond (9.21)	No	No	_					00000
			1	100755	——х	-rwxr-xr-x	24	623808
/ usr/libexec/nsurlsessiond (9.33)	No	No		100===			a :	a
			1	100755	——х	-rwxr-xr-x	24	654240

File	Sticky	Link Bit	Me	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/ usr/libexec/nsurlsessiond (10.02)	No	-	1	-	——х	-	4494204240	-
$/ {\rm usr/libexec/nsurlstoraged} (9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	232912
$/ {\rm usr/libexec/nsurlstoraged} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	233168
/ usr/libexec/nsurlstoraged (10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/online-auth-agent(9.21)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	80128
$/{ m usr/libexec/online-auth-agent(9.33)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	80192
/ usr/libexec/online-auth-agent (10.02)	No	-	1	-	х	-	4494204240	-
$/ \text{usr/libexec/oscard} (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	38912
$/{ m usr/libexec/oscard(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/\mathrm{usr/libexec/pcapd}(9.21\mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	36896
$/{ m usr/libexec/pcapd}(10.02)$	No	-	1	-	x	-	4494204240	-
$ m /usr/libexec/pfd(9.21 \mid 9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	73664
m /usr/libexec/pfd(10.02)	No	-	1	-	x	-	4494204240	-
$/{ m usr/libexec/pipelined(9.21)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	4029952
$/{ m usr/libexec/pipelined(9.33)}$	No	No						
			1	100755	x	-rwxr-xr-x	24	4030000

File	Sticky	Link Bit	M	ode	Perm	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{\rm usr/libexec/pipelined(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/{\rm usr/libexec/pkd} (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	162800
$/{ m usr/libexec/pkd}(10.02)$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/pkreporter (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	35552
/ usr/libexec/pkreporter (10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/ptpd}(9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	196880
$/{ m usr/libexec/ptpd}(9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	197024
$/{ m usr/libexec/ptpd(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/replayd}(9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	130336
$/{ m usr/libexec/replayd}(9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	130352
$/{ m usr/libexec/replayd(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/rolld(9.21)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	97120
$/{ m usr/libexec/rolld(9.33)}$	No	No	1	100755			94	97168
(x	-rwxr-xr-x	24	
/usr/libexec/rolld(10.02)	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/routined (9.21 \mid 9.33)$	No	No	,	100755			94	95944
			1	100755	——x	-rwxr-xr-x	24	35344

File	Sticky	Link Bit	Me	ode	Permi	issions	Si	ze
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{ m usr/libexec/routined(10.02)}$	No	-	1	-	x	-	4494204240	-
$/{ m usr/libexec/rtcreportingd} (9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	143264
$/ {\rm usr/libexec/rtcreportingd} (9.33)$	No	No						
			1	100755	x	-rwxr-xr-x	24	143280
$/{ m usr/libexec/rtcreportingd} (10.02)$	No	-	1	-	x	-	4494204240	-
$/{\rm usr/libexec/securityd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	1121248
$/{\rm usr/libexec/securityd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	1166624
$/{\rm usr/libexec/securityd} (10.02)$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/seld(9.21 TouchID)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	91488
$/{\rm usr/libexec/seld} (9.33 {\rm TouchID})$	No	No						
			1	100755	——х	-rwxr-xr-x	24	91600
$/ {\rm usr/libexec/seld} (10.02 {\rm TouchID})$	No	-	1	-	x	-	4494204240	-
$/{\rm usr/libexec/seputil} (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	56208
$/ {\rm usr/libexec/seputil} (10.02)$	No	-	1	-	x	-	4494204240	-
/usr/libexec/sharingd(9.21)	No	No						
			1	100755	x	-rwxr-xr-x	24	2002592
$/{ m usr/libexec/sharingd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	2048192
$/{ m usr/libexec/sharingd(10.02)}$	No	-	1	-	x	-	4494204240	-

File	Sticky Link Bit		Mode		Permissions		Size	
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/ usr/libexec/splashboardd (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	39424
/usr/libexec/splashboardd(10.02)	No	-	1	-	——х	-	4494204240	-
	No	No						
			1	100755	x	-rwxr-xr-x	24	36832
/ usr/libexec/springboardservices relay (9.33)	No	No						
			1	100755	х	-rwxr-xr-x	24	37024
$\frac{/ usr/libexec/springboardservices relay (10.02)}{}$	No	-	1	-	x	-	4494204240	-
$/usr/libexec/streaming_zip_conduit(9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	39504
$/ usr/libexec/streaming_zip_conduit (9.33)$	No	No	1	100755	x	-rwxr-xr-x	24	39760
/usr/libexec/streaming_zip_conduit(10.02)	No	-	1	_	x	_	4494204240	-
			1				1101201210	
/usr/libexec/swcd(9.21)	No	No	1	100755	х	-rwxr-xr-x	24	35648
/usr/libexec/swcd(9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	35712
/usr/libexec/swcd(10.02)	No	-	1	-	x	-	4494204240	-
$/ {\rm usr/libexec/symptomsd} (9.21)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	36864
$/{\rm usr/libexec/symptomsd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	36960
/ usr/libexec/symptomsd (10.02)	No	-	1	-	——х	-	4494204240	-
/ usr/libexec/symptomsd-helper (9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	36864

File	Sticky Link Bit		Mode		Permissions		Size	
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/ {\rm usr/libexec/symptomsd-helper} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	36960
/ usr/libexec/symptomsd-helper (10.02)	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/syslog_relay(9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	34368
/usr/libexec/syslog_relay(10.02)	No	-	1	-	——х	-	4494204240	-
/ usr/libexec/sysstatuscheck (9.21)	No	No						
			1	100755	——х	-rwxr-xr-x	24	41472
/ usr/libexec/sysstatuscheck (9.33)	No	No						
			1	100755	х	-rwxr-xr-x	24	41824
/usr/libexec/sysstatuscheck(10.02)	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/timed(9.21)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	376704
$/{ m usr/libexec/timed} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	393280
$/{ m usr/libexec/timed(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/tipsd}(9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	109296
/ usr/libexec/tipsd (9.33)	No	No						
			1	100755	——х	-rwxr-xr-x	24	126416
$/{ m usr/libexec/tipsd} (10.02)$	No	-	1	-	——х	-	4494204240	-
$/{ m usr/libexec/transitd(9.21)}$	No	No						
			1	100755	——х	-rwxr-xr-x	24	60112
$/{ m usr/libexec/transitd} (9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	60224

File	Sticky Link Bit		Mode		Permissions		Size	
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
$/{ m usr/libexec/transitd(10.02)}$	No	-	1	-	x	-	4494204240	-
$/ \mathrm{usr/libexec/tzd} (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	145536
$/{ m usr/libexec/tzd(10.02)}$	No	-	1	-	x	-	4494204240	-
$/ usr/libexec/tzinit (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	35280
$/{ m usr/libexec/tzinit(10.02)}$	No	-	1	-	x	-	4494204240	-
$/ usr/libexec/tzlinkd (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	35728
$/{ m usr/libexec/tzlinkd(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/ \text{usr/libexec/wapic} (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	262704
$/{ m usr/libexec/wapic(10.02)}$	No	-	1	-	——х	-	4494204240	-
$/ usr/libexec/webinspectord (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	110400
$/{ m usr/libexec/webinspectord} (10.02)$	No	-	1	-	x	-	4494204240	1
$/ usr/libexec/wifiFirmwareLoader (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	56496
/ usr/libexec/wifiFirmwareLoader (10.02)	No	-	1	-	——х	-	4494204240	-
$/ {\rm usr/libexec/xpcproxy} (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	57808
$/{ m usr/libexec/xpcproxy(10.02)}$	No	-	1	-	x	-	4494204240	-

File	Sticky Link Bit		Mode		Permissions		Size	
-	Jailed	JB	Jailed	JB	Jailed	JB	Jailed	JB
-	-	-	-	-	-	-	-	-
/usr/lib	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/Library/LaunchAgents	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	68	68
/System/Library/LaunchDaemons	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
$/ usr/libexec/aosnotifyd (9.21 \mid 9.33)$	No	No						
			1	100755	——х	-rwxr-xr-x	24	402336
	No	No						
			1	100755	x	-rwxr-xr-x	24	93040
	No	No						
			1	100755	х	-rwxr-xr-x	24	1004848
	No	No		400		-rwxr-xr-x		07.440
			1	100755	——х		24	35440
/ usr/libexec/networkd (9.21)	No	No	1	100755	x	-rwxr-xr-x	24	669728
/usr/libexec/networkd(9.33)	No	No						
/ del/ indexec/ networkd(5.55)	110	140	1	100755	——х	-rwxr-xr-x	24	669920
/usr/libexec/networkd_privileged(9.21 9.33)	No	No						
			1	100755	x	-rwxr-xr-x	24	58304
$/{\rm usr/libexec/uuidpathd} (9.21)$	No	No						
			1	100755	x	-rwxr-xr-x	24	35408
/private/var/root	No	No	40755	40755	drwxr-xr-x	drwxr-xr-x	-	-
/private/var/mobile	No	No	40711	40711	drwx-x-x	drwx-x-x	-	-
/private/var/mobile/Library	No	No	40711	40711	drwx-x-x	drwx-x-x	-	-
/private/var/mobile/Library/Caches	No	No	40700	-	drwx	-	-	-

8 Analysis and Testing

An app was made to confirm the accuracy of the above methods and was able to determine the state of the devices correctly.

Tested successfully on the following devices and iOS versions:

- 1. iPad Mini 1 : 32-bit : 9.2 : Jailed
- 2. iPhone 4S: 32-bit: 9.0: Jailed
- 3. iPod 6 Gen: 64-bit: 9.33: Jailed
- 4. iPad Air 2: 64-bit: 9.35: Jailed
- 5. iPad Air 2: 64-bit: 10.1(b): Jailed
- 6. iPhone 6: 64-bit: 10.1(b): Jailed
- 7. iPhone 6+:64-bit : 10.02: Jailed
- 8. iPhone 6+: 64-bit: 9.33: Jailed
- 9. iPad Pro: 64-bit: 9.21: Jailed
- 10. iPad Pro: 64-bit: 9.21: Jailbroken
- 11. iPad Mini 4 : 64-bit : 9.33 : Jailbroken

9 Conclusion

Methods mentioned above when consolidated can be considered as a strong mechanism for detecting the state of the system.

Note:

This makes it difficult for an user/attacker to bypass these detection methods.

Having said so, being the root of the system an user/attacker will always have more control on the system and if given more time these checks can again be bypass.

Also not to forget the swizzling techniques, which can any time break all the detection by returning wrong values.

10 Future Work

With the release of new iOS and their jailbreaks many things changes on the system.

Old files gets removed.

New files gets introduced.

Permission model and size gets change.

These things also changes based on the devices (iPhone, iPad etc.)

Due to this, consistent and more thorough analysis needs to be done on different versions and different devices, so as to prevent from generating any false positives.