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How to easily add an SSH fingerprint to your known_hosts file in Linux



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in



by **Jack Wallen** in **Networking** on February 8, 2018, 9:00 AM PST

If your Linux shell scripts are getting tripped up by SSH fingerprints, Jack Wallen has an easy solution to avoid the problem.

File Searching		Editing Text Files	
grep pattern file	Search for pattern in file	nano	Text editor
grep -v	Inverted	Shortcuts	
grep -r	Recursive	Ctrl-o	Save file
grep -e patt -e patt	Multiple	Ctrl-x	Close file
locate file	Quick	Ctrl-r	Open file
which cmd	Find location	Ctrl-k	Cut line of text
find dir -name pattern	Find file in dir	Ctrl-u	Paste line of text
Standard IO Streams		Ctrl-d	Delete character
stdin	Input typed on terminal	Ctrl-w	Search for text
stdout	Output on the terminal	Text File Operations	
stderr	Errors output	wc	Line character
echo string	Write to stdout	sort file	Sort
		uniq file	Display lines
Redirection		sed 's/abc/def/g' file	Replacement of all instances of abc to def in file
cmd > file	Redirect output to file	cut -d " " -f N file	Display space
cmd < file	Redirect input from file	cut -d "," -f M-N file	Display column
cmd >> file	Append output to file	GUI applications via Command	
cmd 2> file	Redirect stderr to file	gedit	Text editor
cmd &> file	Redirect stdout and stderr to file	wireshark	Packet capture and analysis
Pipes and Filters		eog	Image viewer
cmd1 cmd2	Pipe output of cmd1 into cmd2	vince	PDF viewer
		nautilus	File explorer
SSH Fingerprinting		Administrator Privileges	
ssh-keygen	Generate SSH keys	sudo cmd	Execute cmd with superuser privileges
ssh-keygen -t rsa	Generate RSA keys	su username	Switch to user username



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Let's say you've written a bash script that scans all of your Linux servers in your data center for uptime. Such a file could contain the following contents:

```
ssh $1 "uptime"
```

When you run your script, it may get foiled by an issue where it is stopped by a server that has yet to have its SSH key fingerprint added to the `known_hosts` file. When this happens, your script is rendered useless.

SSH key fingerprint

What is an SSH key fingerprint? Simple: It is the fingerprint of a key that is verified when you try to login to a remote computer using SSH. When you log into an SSH server for the first time, you'll see something like that shown in **Figure A**.

Figure A

You have to accept the fingerprint before the SSH connection can be made.





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If you don't accept the fingerprint, the connection will be immediately broken. So what happens when you're working with a bash script that cannot accept input, in order to okay the addition of the remote SSH fingerprint?

Fortunately, the developers of SSH thought of this, and have added a command that allows you to easily add SSH fingerprints to the `known_hosts` file.

Adding the fingerprint

I'll demonstrate adding the fingerprint from a remote server to a local machine. Let's say the remote server is at 192.168.1.162. To add that fingerprint, the command would be:

```
ssh-keyscan -H 192.168.1.162 >> ~/.ssh/known_hosts
```

The command will run and add the remote SSH fingerprint to the local machine, without your input (**Figure B**).

Figure B



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```
ssh-keyscan $1 >> ~/.ssh/known_hosts
```

The above addition would take the argument from the command (say, for example, `./script 192.168.1.118`) and add the fingerprint to `~/.ssh/known_hosts` before it then moves to the next line--thereby avoiding the missing SSH fingerprint issue. Of course the above would only work properly if you have ssh key authentication setup. Otherwise, you'd have to enter the remote machine's password.

The simple things

Sometimes it's the simple things that trip up our bash scripts. If that key fingerprint issue has been causing you headaches with your scripts, you now have the means of avoiding the issue.



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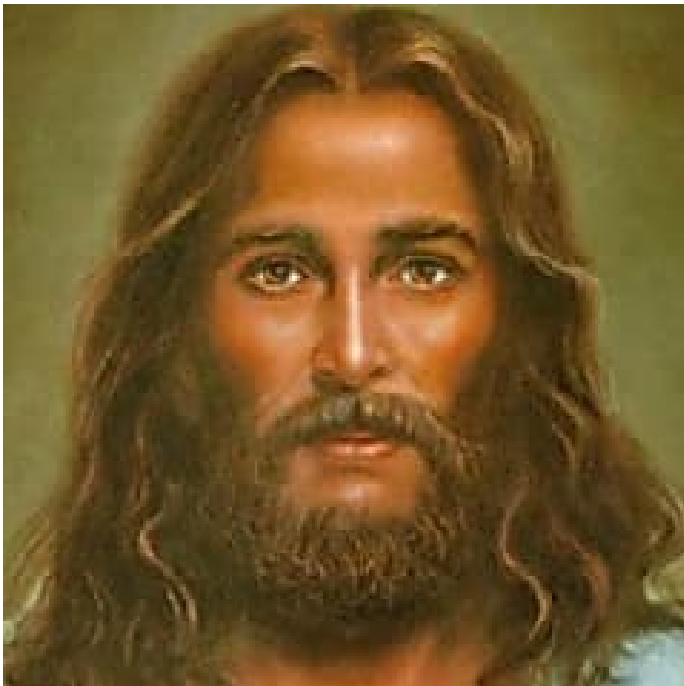
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