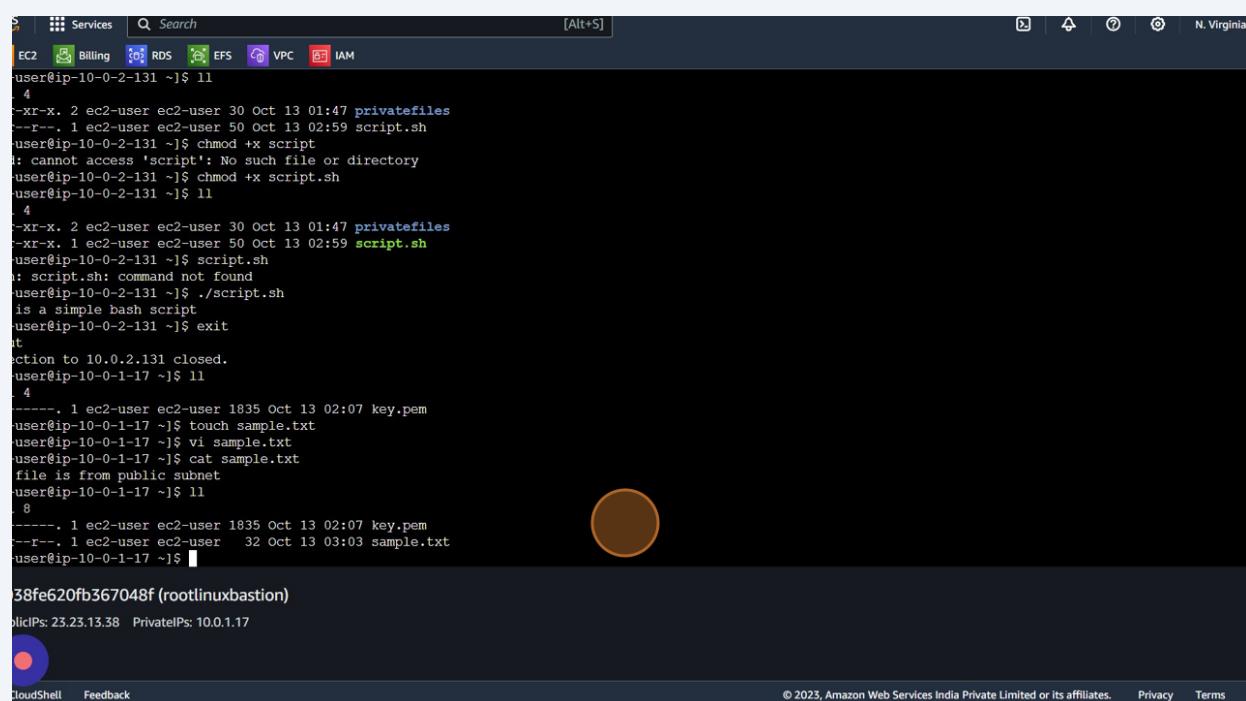


Copying a File from Public to Private Instance in AWS EC2

1 SSH into public instance



The screenshot shows a terminal session in AWS CloudShell. The user has logged in to an EC2 instance with the command `ssh -i /path/to/key.pem ec2-user@`. The terminal window title is "CloudShell". The user has run several commands to demonstrate file operations between public and private file systems:

```
user@ip-10-0-2-131 ~]$ ll
.
.
.
4
-rw-r-- 2 ec2-user ec2-user 30 Oct 13 01:47 privatefiles
-rw-r-- 1 ec2-user ec2-user 50 Oct 13 02:59 script.sh
user@ip-10-0-2-131 ~]$ chmod +x script.sh
: cannot access 'script': No such file or directory
user@ip-10-0-2-131 ~]$ chmod +x script.sh
user@ip-10-0-2-131 ~]$ ll
.
.
.
4
-rw-r-- 2 ec2-user ec2-user 30 Oct 13 01:47 privatefiles
-rw-r-- 1 ec2-user ec2-user 50 Oct 13 02:59 script.sh
user@ip-10-0-2-131 ~]$ script.sh
: script.sh: command not found
user@ip-10-0-2-131 ~]$ ./script.sh
is a simple bash script
user@ip-10-0-2-131 ~]$ exit
Connection to 10.0.2.131 closed.
user@ip-10-0-1-17 ~]$ ll
.
.
.
4
-rw-r-- 1 ec2-user ec2-user 1835 Oct 13 02:07 key.pem
user@ip-10-0-1-17 ~]$ touch sample.txt
user@ip-10-0-1-17 ~]$ vi sample.txt
user@ip-10-0-1-17 ~]$ cat sample.txt
file is from public subnet
user@ip-10-0-1-17 ~]$ ll
.
.
.
8
-rw-r-- 1 ec2-user ec2-user 1835 Oct 13 02:07 key.pem
-rw-r-- 1 ec2-user ec2-user 32 Oct 13 03:03 sample.txt
user@ip-10-0-1-17 ~]$
```

At the bottom of the terminal, the session ID is shown as `38fe620fb367048f (rootlinuxbastion)`, and the public IP is listed as `23.23.13.38`.

- 2 We have a file called sample.txt at public instance
We will now copy this file to private instance

The screenshot shows a terminal window with the following session history:

```
2-131 ~]$ ll
user ec2-user 30 Oct 13 01:47 privatefiles
user ec2-user 50 Oct 13 02:59 script.sh
2-131 ~]$ chmod +x script
ss 'script': No such file or directory
2-131 ~]$ chmod +x script.sh
2-131 ~]$ ll
user ec2-user 30 Oct 13 01:47 privatefiles
user ec2-user 50 Oct 13 02:59 script.sh
2-131 ~]$ script.sh
command not found
2-131 ~]$ ./script.sh
ash script
2-131 ~]$ exit
.2.131 closed.
1-17 ~]$ ll
user ec2-user 1835 Oct 13 02:07 key.pem
1-17 ~]$ touch sample.txt
1-17 ~]$ vi sample.txt
1-17 ~]$ cat sample.txt
public subnet
1-17 ~]$ ll
user ec2-user 1835 Oct 13 02:07 key.pem
user ec2-user 32 Oct 13 03:03 sample.txt
1-17 ~]$ we have a file cled sample.txt at public instance and we will copy it from public to private instance at location /usr/ec2-user/
```

At the bottom of the terminal, there is a message: "we have a file cled sample.txt at public instance and we will copy it from public to private instance at location /usr/ec2-user/".

- 3 Pre-request- The pem key should be available , in order to copy the file

we will use 'scp' command to copy the file securely
command:

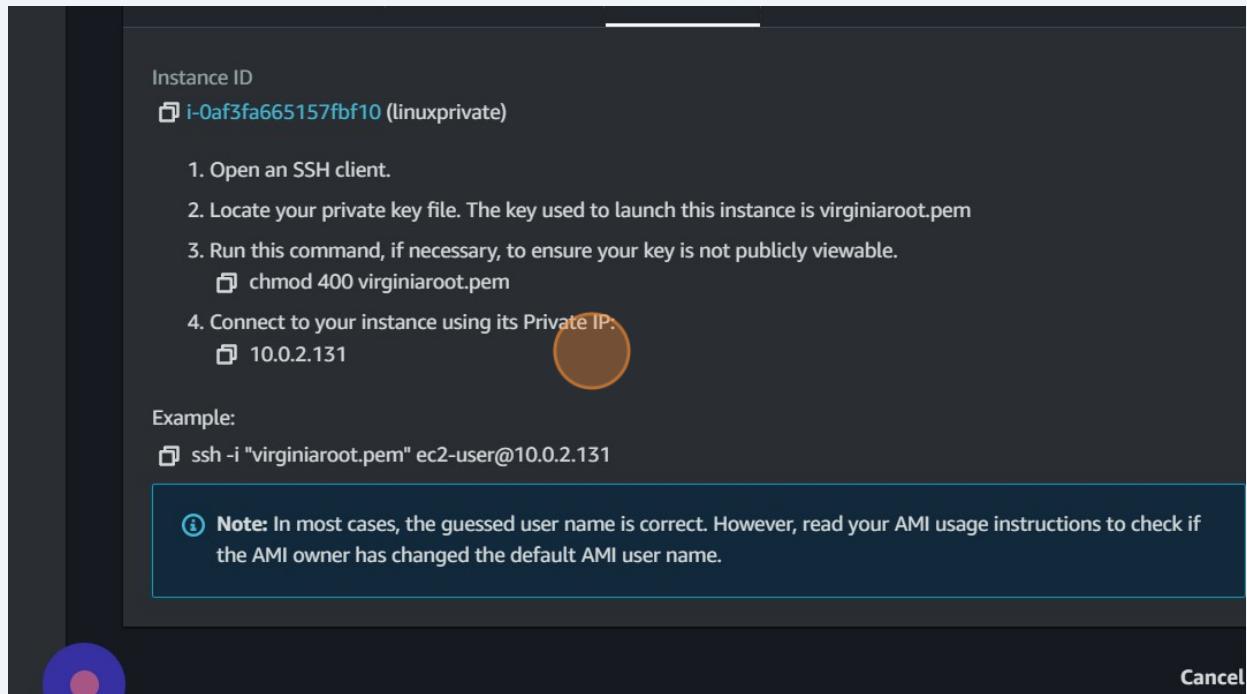
scp -i <pem keyname><filename which needs to copy> ec2-user@<provide the private ip of private instance>:<location where you want to copy the file>

The screenshot shows a terminal window with the following session history:

```
~]$ ll
ec2-user 1835 Oct 13 02:07 key.pem
ec2-user 32 Oct 13 03:03 sample.txt
~]$ scp -i key.pem sample.txt ec2-user@
```

The command "scp -i key.pem sample.txt ec2-user@" is partially typed in the terminal.

4 Go to your private instance and copy private ip



5 in this case: scp -i key.pem sample.txt ec2-user@10.0.2.131:~/home/ec2-user

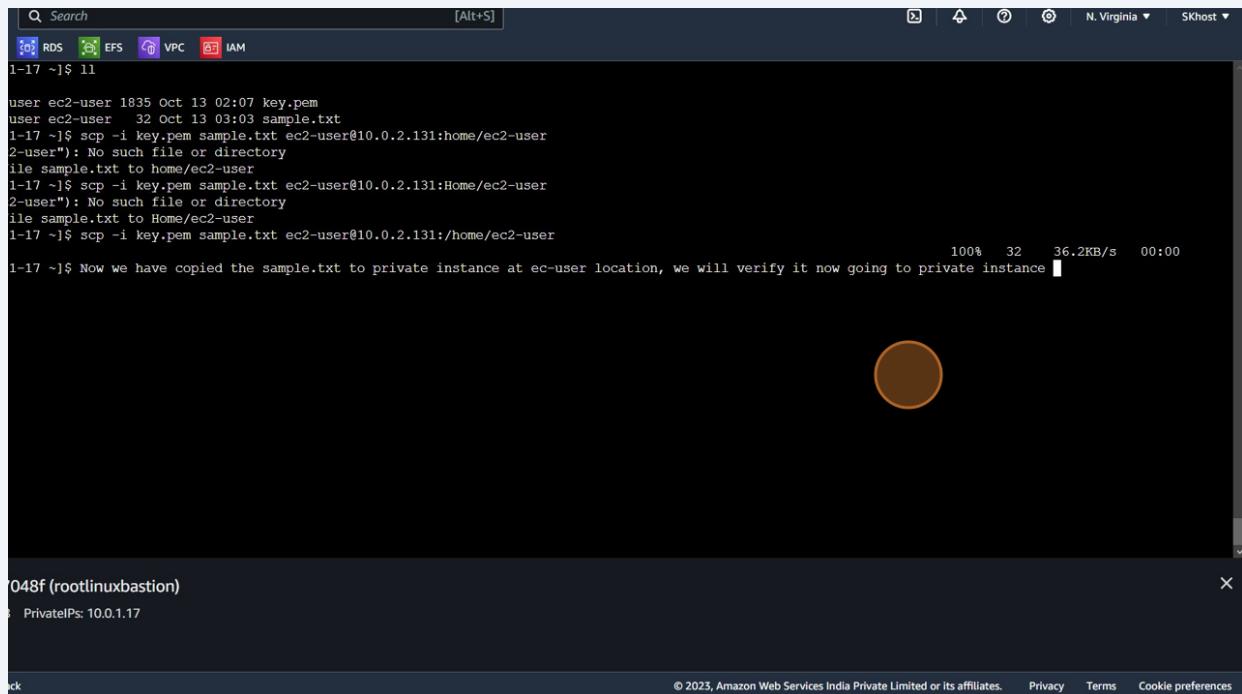
```
[ec2-user@ip-10-0-1-17 ~]$ ll
total 8
-r-----. 1 ec2-user ec2-user 1835 Oct 13 02:07 key.pem
-rw-r--r--. 1 ec2-user ec2-user    32 Oct 13 03:03 sample.txt
[ec2-user@ip-10-0-1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:~/home/ec2-user
dest open("home/ec2-user"): No such file or directory
failed to upload file sample.txt to home/ec2-user
[ec2-user@ip-10-0-1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:~/home/ec2-user
dest open("Home/ec2-user"): No such file or directory
failed to upload file sample.txt to Home/ec2-user
[ec2-user@ip-10-0-1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:~/home/ec2-user
sample.txt
[ec2-user@ip-10-0-1-17 ~]$
```

- 6 Type "Now we have copied the sample.txt to private instance at ec-user location, we will verify it now going to private instance"

- 7 ssh into private instance

command

ssh -i pem.key ec2-user@10.0.2.131



The screenshot shows a terminal window in the AWS CloudShell interface. The user has run the command `ssh -i pem.key ec2-user@10.0.2.131`. The terminal output shows the file transfer process:

```
user ec2-user 1835 Oct 13 02:07 key.pem
user ec2-user 32 Oct 13 03:03 sample.txt
1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:/home/ec2-user
2-user": No such file or directory
file sample.txt to /home/ec2-user
1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:/home/ec2-user
2-user": No such file or directory
file sample.txt to /home/ec2-user
1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:/home/ec2-user
100% 32 36.2KB/s 00:00
1-17 ~]$ Now we have copied the sample.txt to private instance at ec-user location, we will verify it now going to private instance
```

The terminal window has a dark theme. A brown circle is drawn over the status bar at the bottom right. The status bar also displays the session ID (7048f), private IP (10.0.1.17), and the AWS footer with copyright information.

- 8 The file successfully copied at desired location

9 Now we will copy the script file from private instance to public instance

```
user ec2-user 1835 Oct 13 02:07 key.pem
user ec2-user 32 Oct 13 03:03 sample.txt
1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:/home/ec2-user
2-user": No such file or directory
file sample.txt to home/ec2-user
1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:/home/ec2-user
2-user": No such file or directory
file sample.txt to Home/ec2-user
1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:/home/ec2-user
100% 32 36.2KB/s 00:00

Amazon Linux 2023

https://aws.amazon.com/linux/amazon-linux-2023
>

t 13 02:09:11 2023 from 10.0.1.17
2-131 ~]$ ll

user ec2-user 30 Oct 13 01:47 privatefiles
user ec2-user 32 Oct 13 03:19 sample.txt
user ec2-user 50 Oct 13 02:59 script.sh
2-131 ~]$ cat sample.txt
public subnet
2-131 ~]$ Now we will copy the script file from private instance to public instance [REDACTED]
```

048f (rootlinuxbastion)

PrivateIPs: 10.0.1.17

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10 verify the content using below command

```
cat sample.txt
```

```
^_\_ #####_      Amazon Linux 2023
~~ \_\####\_
~~ \###|
~~   \#/      https://aws.amazon.com/linux/amazon-linux-2023
~~     V~' '-->
~~~ /
~~.*. / /
~~/_/ / /
~/m/'

Last login: Fri Oct 13 02:09:11 2023 from 10.0.1.17
[ec2-user@ip-10-0-2-131 ~]$ ll
total 8
drwxr-xr-x. 2 ec2-user ec2-user 30 Oct 13 01:47 privatefiles
-rw-r--r--. 1 ec2-user ec2-user 32 Oct 13 03:19 sample.txt
-rwxr-xr-x. 1 ec2-user ec2-user 50 Oct 13 02:59 script.sh
[ec2-user@ip-10-0-2-131 ~]$ cat sample.txt
this file is from public subnet
[ec2-user@ip-10-0-2-131 ~]$ [REDACTED]
```

i-038fe620fb367048f (rootlinuxbastion)

PublicIPs: 23.23.13.38 PrivateIPs: 10.0.1.17



CloudShell Feedback

11

Since we don't have the private key in private instance , we will copy private from public instance to private ec2-user location first

The screenshot shows a terminal window in the AWS CloudShell interface. The user is attempting to copy a file from a public instance to a private instance using SCP:

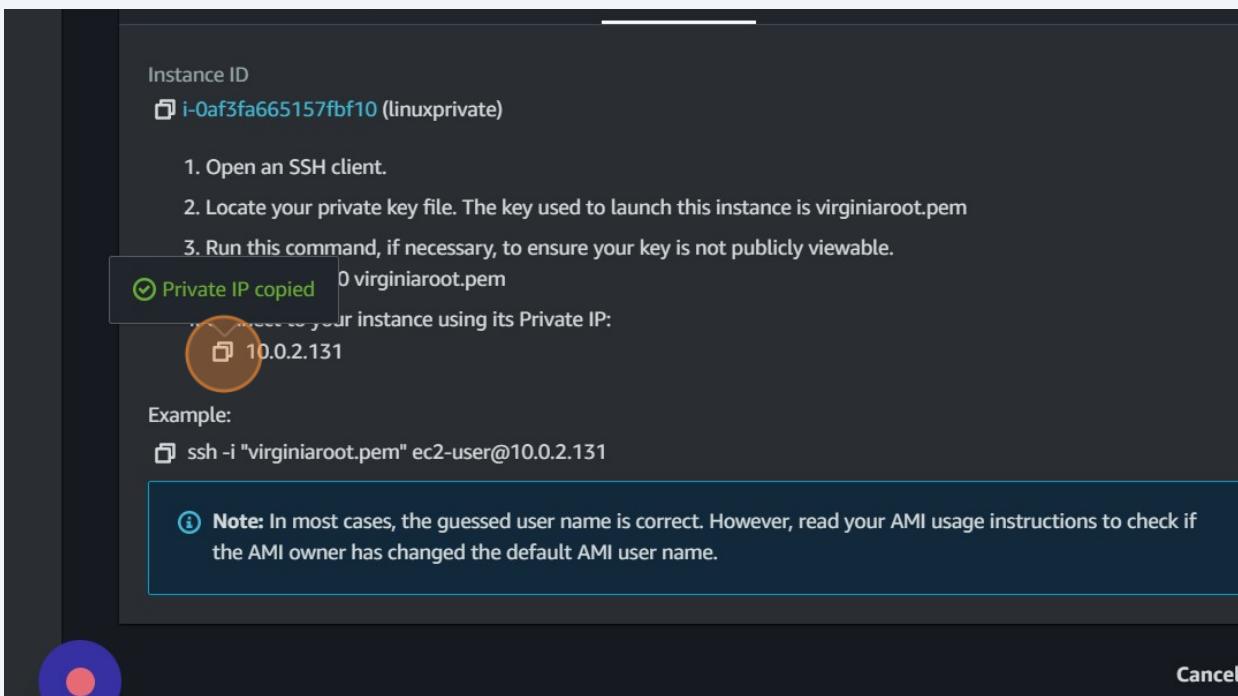
```
1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:Home/ec2-user
2-user": No such file or directory
file sample.txt to Home/ec2-user
1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:/home/ec2-user
1-17 ~]$ ssh -i key.pem ec2-user@10.0.2.131
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
>

t 13 02:09:11 2023 from 10.0.1.17
2-131 ~]$ ll
user ec2-user 30 Oct 13 01:47 privatefiles
user ec2-user 32 Oct 13 03:19 sample.txt
user ec2-user 50 Oct 13 02:59 script.sh
2-131 ~]$ cat sample.txt
public subnet
2-131 ~]$ ll
user ec2-user 30 Oct 13 01:47 privatefiles
user ec2-user 32 Oct 13 03:19 sample.txt
user ec2-user 50 Oct 13 02:59 script.sh
2-131 ~]$ we dont have the private key in private instance , we will copy private from public instance to private ec2-user location first
```

The terminal shows the user's path: /home/ec2-user. A message at the bottom indicates they don't have the private key in the private instance and need to copy it from the public instance.

12

exit from private instance and go to public instance in linux terminal
Copy the private instance ip



13

We need to copy the pem key like we copied the sample text file to private instance
in this case:
scp -i key.pem key.pem ec2-user@10.0.2.131:/home/ec2-user

```
user ec2-user 30 Oct 13 02:59 script.sh
2-131 ~]$ cat sample.txt
public subnet
2-131 ~]$ ll

user ec2-user 30 Oct 13 01:47 privatefiles
user ec2-user 32 Oct 13 03:19 sample.txt
user ec2-user 50 Oct 13 02:59 script.sh
2-131 ~]$ exit

.2.131 closed.
1-17 ~]$ ll

user ec2-user 1835 Oct 13 02:07 key.pem
user ec2-user 32 Oct 13 03:03 sample.txt
1-17 ~]$ scp -i key.pem key.pem ec2-user@10.0.2.131:/home/ec2-user
1-17 ~]$ ssh -i key.pem ec2-user@https://www.scribehow.com
048f (rootlinuxbastion)

PrivateIPs: 10.0.1.17

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```

14

switch to private instance
ssh -i key.pem ec2-user@<private instance private ip>
in this case: ssh -i key.pem ec2-user@[10.0.2.131](https://www.scribehow.com)

```
Search [Alt+S] | RDS | EFS | VPC | IAM
user ec2-user 32 Oct 13 03:19 sample.txt
user ec2-user 50 Oct 13 02:59 script.sh
2-131 ~]$ exit

.2.131 closed.
1-17 ~]$ ll

user ec2-user 1835 Oct 13 02:07 key.pem
user ec2-user 32 Oct 13 03:03 sample.txt
1-17 ~]$ scp -i key.pem key.pem ec2-user@10.0.2.131:/home/ec2-user
1-17 ~]$ ssh -i key.pem ec2-user@10.0.2.131
100% 1835 2.0MB/s 00:00
Amazon Linux 2023

https://aws.amazon.com/linux/amazon-linux-2023
>

2-131 ~]$ ll

user ec2-user 1835 Oct 13 03:27 key.pem
user ec2-user 30 Oct 13 01:47 privatefiles
user ec2-user 32 Oct 13 03:19 sample.txt
user ec2-user 50 Oct 13 02:59 script.sh
2-131 ~]$ Now we have private key which can be used to copy

048f (rootlinuxbastion)
PrivateIPs: 10.0.1.17

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```

15 take the public instance ip

Screenshot of the AWS EC2 Instances page. The search bar shows 'Search' and the keyboard shortcut '[Alt+S]'. The top navigation bar includes Billing, RDS, EFS, VPC, and IAM. A sidebar on the left lists Experience, View, Instances, and Hosts. The main content area shows 'Instances (2) Info' with a search bar 'Find instance by attribute or tag (case-sensitive)'. Two instances are listed:

	Name	Instance ID	Instance state	Instance type
<input type="checkbox"/>	rootlinuxbastion	i-038fe620fb367048f	Running	t2.micro
<input type="checkbox"/>	linuxprivate	i-0af3fa665157fbf10	Running	t2.micro

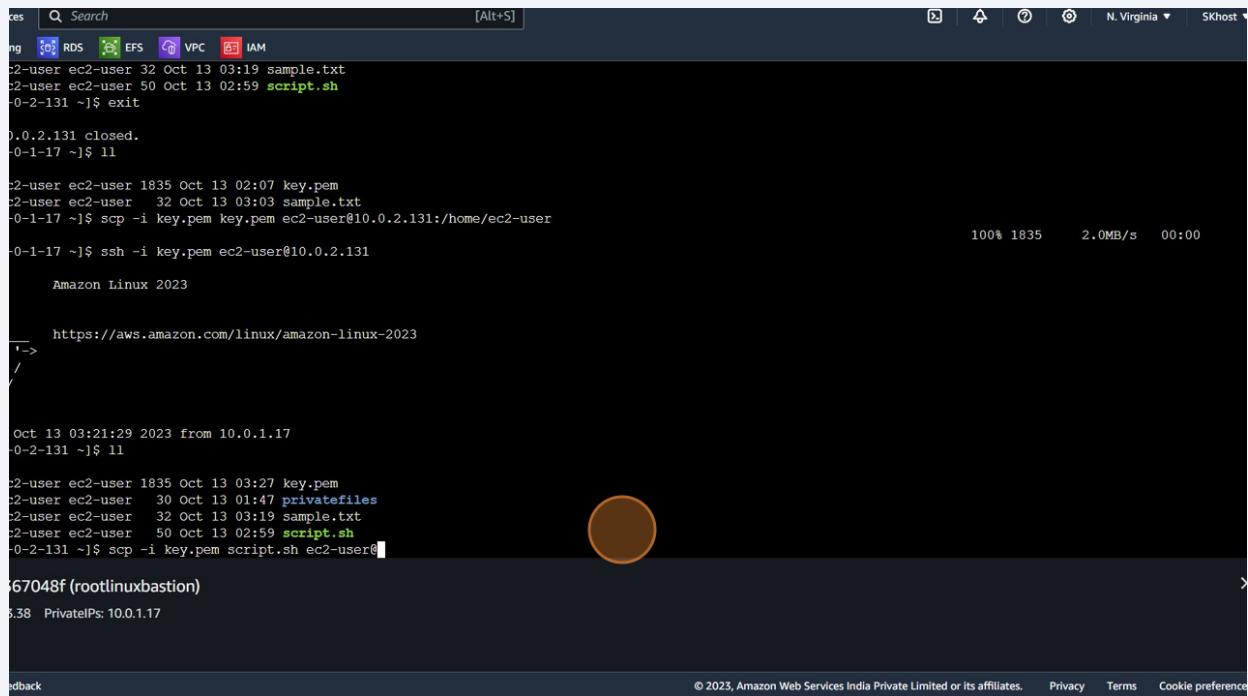
16 copy public ip

Screenshot of the AWS EC2 Instance summary page for instance i-038fe620fb367048f (rootlinuxbastion). The top navigation bar includes EFS, VPC, and IAM. The breadcrumb navigation shows EC2 > Instances > i-038fe620fb367048f. The instance summary table contains the following details:

Instance ID	Public IPv4 address	Private IP address
i-038fe620fb367048f (rootlinuxbastion)	23.23.13.38 open address	172.31.17.10
IPv6 address	Instance state	Public DNS name
-	Running	ec2-23-23-13-38.compute-1.amazonaws.com
Hostname type	Private IP DNS name (IPv4 only)	Elastic IP address
IP name: ip-10-0-1-17.ec2.internal	ip-10-0-1-17.ec2.internal	-
Answer private resource DNS name	Instance type	AWS Lambda function
-	t2.micro	-
Auto-assigned IP address	VPC ID	Region
-	-	us-east-1

17

scp -i <pem key name> <file name> ec2-user@<public instance ip>:<desired location>

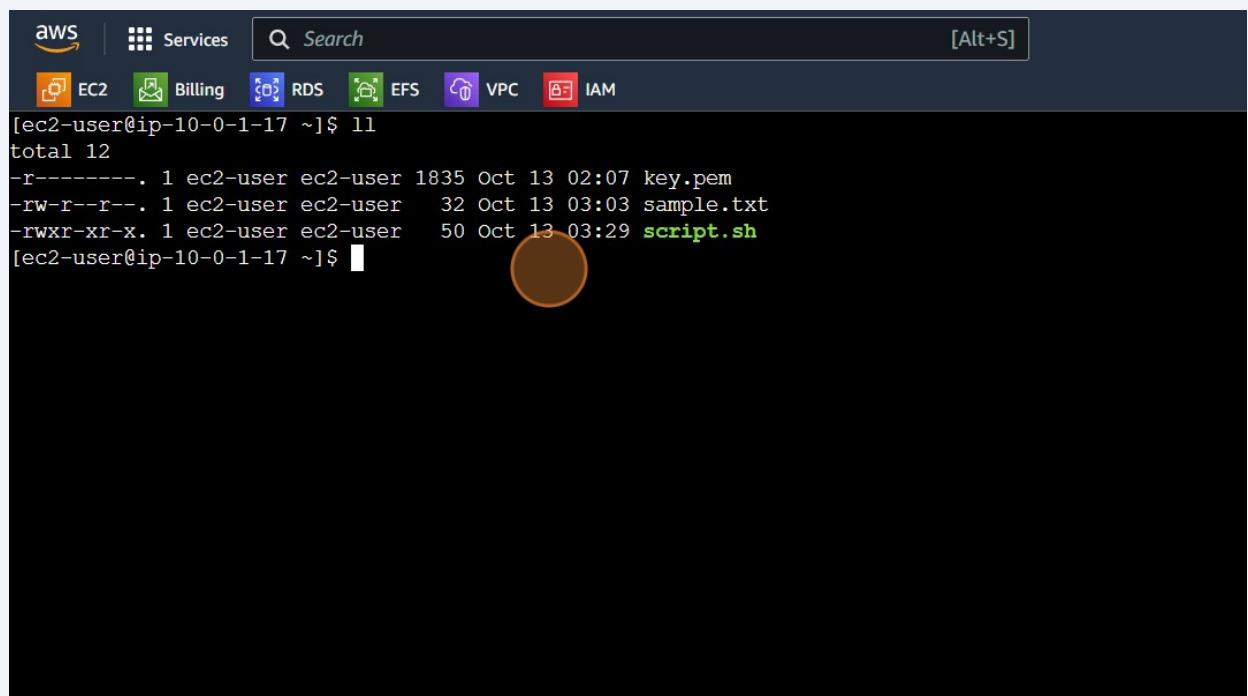


```
Search [Alt+S]
[ec2-user@ip-10-0-1-17 ~]$ ls
sample.txt script.sh
[ec2-user@ip-10-0-1-17 ~]$ scp -i key.pem sample.txt ec2-user@10.0.2.131:/home/ec2-user
100% 1835      2.0MB/s   0:00
[ec2-user@ip-10-0-1-17 ~]$ ssh -i key.pem ec2-user@10.0.2.131
Amazon Linux 2023

https://aws.amazon.com/linux/amazon-linux-2023
[ec2-user@ip-10-0-1-17 ~]$ ls
key.pem sample.txt script.sh
[ec2-user@ip-10-0-1-17 ~]$
```

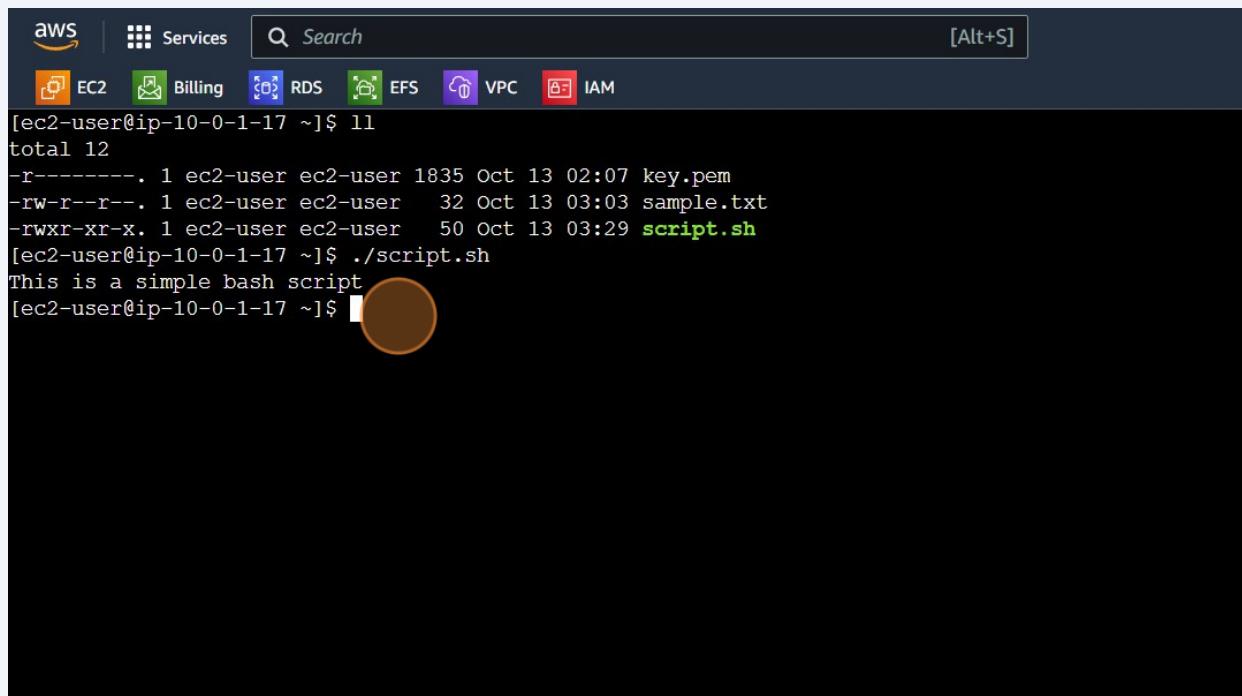
18

Now switch back to public instance and verify if the file is present/copied to the desired location



```
aws Services Search [Alt+S]
[ec2-user@ip-10-0-1-17 ~]$ ls
total 12
-r----- 1 ec2-user ec2-user 1835 Oct 13 02:07 key.pem
-rw-r--r-- 1 ec2-user ec2-user 32 Oct 13 03:03 sample.txt
-rwxr-xr-x 1 ec2-user ec2-user 50 Oct 13 03:29 script.sh
[ec2-user@ip-10-0-1-17 ~]$
```

19 Click here.



The screenshot shows a terminal window within the AWS CloudShell interface. The terminal is running on an EC2 instance with the IP address 10-0-1-17. The user is logged in as 'ec2-user'. The terminal displays the following command and its output:

```
[ec2-user@ip-10-0-1-17 ~]$ ll
total 12
-r-----. 1 ec2-user ec2-user 1835 Oct 13 02:07 key.pem
-rw-r--r--. 1 ec2-user ec2-user    32 Oct 13 03:03 sample.txt
-rwxr-xr-x. 1 ec2-user ec2-user   50 Oct 13 03:29 script.sh
[ec2-user@ip-10-0-1-17 ~]$ ./script.sh
This is a simple bash script
[ec2-user@ip-10-0-1-17 ~]$
```

A large brown circle has been drawn over the terminal window to obscure sensitive information.