**HOW TO AUTOMATE BACKUP PROCESSES ON DIFFERENT SERVERS**

The production support team of xFusionCorp Industries is working on developing some bash scripts to automate different day to day tasks. One is to create a bash script for taking websites backup. They have a static website running on App Server 2 in Stratos Datacenter, and they need to create a bash script named official\_backup.sh which should accomplish the following tasks. (Also remember to place the script under /scripts directory on App Server 2).

a. Create a zip archive named xfusioncorp\_official.zip of /var/www/html/official directory.

b. Save the archive in /backup/ on App Server 2. This is a temporary storage, as backups from this location will be clean on weekly basis. Therefore, we also need to save this backup archive on Nautilus Backup Server.

c. Copy the created archive to Nautilus Backup Server server in /backup/ location.

d. Please make sure script won't ask for password while copying the archive file. Additionally, the respective server user (for example, tony in case of App Server 1) must be able to run it.

e. Do not use sudo inside the script.

**Note:**  
The zip package must be installed on given App Server before executing the script. This package is essential for creating the zip archive of the website files. Install it manually outside the script.

SOLUTION: — let’s streamline everything.  
The lab is testing you on creating **backup scripts** for different web apps on different App Servers:

* **App Server 1** → ecommerce\_backup.sh
* **App Server 2** → news\_backup.sh
* **App Server 3** → beta\_backup.sh

All scripts:

* Must live under /scripts on their respective servers.
* Must create a zip of the right website folder under /var/www/html/.
* Must save it to /backup/ locally.
* Must copy it to the Nautilus Backup Server (stbkp01.stratos.xfusioncorp.com) into /backup/ as user clint.
* Must not use sudo inside the script.

**🔧 Step-by-Step Commands**

**1. Prepare passwordless SSH (do once from each App Server to backup server)**

On each App Server (App1, App2, App3), run as its respective user (tony, steve, banner):

ssh-keygen -t rsa

ssh-copy-id clint@stbkp01.stratos.xfusioncorp.com

Now scp will work without password prompts.

**2. App Server 1 (stapp01, user tony)**

ssh tony@stapp01.stratos.xfusioncorp.com

# password: Ir0nM@n

# Create scripts directory

sudo mkdir -p /scripts

sudo chown tony:tony /scripts

# Create ecommerce\_backup.sh

vi /scripts/ecommerce\_backup.sh

Paste:

#!/bin/bash

SRC\_DIR="/var/www/html/ecommerce"

BACKUP\_NAME="xfusioncorp\_ecommerce.zip"

LOCAL\_BACKUP="/backup/${BACKUP\_NAME}"

REMOTE\_USER="clint"

REMOTE\_HOST="stbkp01.stratos.xfusioncorp.com"

REMOTE\_DIR="/backup"

zip -r "$LOCAL\_BACKUP" "$SRC\_DIR"

scp "$LOCAL\_BACKUP" ${REMOTE\_USER}@${REMOTE\_HOST}:${REMOTE\_DIR}/

echo "Ecommerce backup completed."

Save & exit, then:

chmod +x /scripts/ecommerce\_backup.sh

**3. App Server 2 (stapp02, user steve)**

ssh steve@stapp02.stratos.xfusioncorp.com

# password: Am3ric@

sudo mkdir -p /scripts

sudo chown steve:steve /scripts

vi /scripts/news\_backup.sh

Paste:

#!/bin/bash

SRC\_DIR="/var/www/html/news"

BACKUP\_NAME="xfusioncorp\_news.zip"

LOCAL\_BACKUP="/backup/${BACKUP\_NAME}"

REMOTE\_USER="clint"

REMOTE\_HOST="stbkp01.stratos.xfusioncorp.com"

REMOTE\_DIR="/backup"

zip -r "$LOCAL\_BACKUP" "$SRC\_DIR"

scp "$LOCAL\_BACKUP" ${REMOTE\_USER}@${REMOTE\_HOST}:${REMOTE\_DIR}/

echo "News backup completed."

Save & exit, then:

chmod +x /scripts/news\_backup.sh

**4. App Server 3 (stapp03, user banner)**

ssh banner@stapp03.stratos.xfusioncorp.com

# password: BigGr33n

sudo mkdir -p /scripts

sudo chown banner:banner /scripts

vi /scripts/beta\_backup.sh

Paste:

#!/bin/bash

SRC\_DIR="/var/www/html/beta"

BACKUP\_NAME="xfusioncorp\_beta.zip"

LOCAL\_BACKUP="/backup/${BACKUP\_NAME}"

REMOTE\_USER="clint"

REMOTE\_HOST="stbkp01.stratos.xfusioncorp.com"

REMOTE\_DIR="/backup"

zip -r "$LOCAL\_BACKUP" "$SRC\_DIR"

scp "$LOCAL\_BACKUP" ${REMOTE\_USER}@${REMOTE\_HOST}:${REMOTE\_DIR}/

echo "Beta backup completed."

Save & exit, then:

chmod +x /scripts/beta\_backup.sh

**5. Test Each Script**

On each server, run:

/scripts/<scriptname>.sh

Expected:

* Zip created in /backup/ locally.
* File copied to /backup/ on stbkp01 as user clint.
* Success message shown.

✅ That’s the full streamlined solution for **App1 (ecommerce\_backup.sh)**, **App2 (news\_backup.sh)**, and **App3 (beta\_backup.sh)**.

You should replace <scriptname> with the actual script you created on each server:

* On **App Server 1** (stapp01):
* /scripts/ecommerce\_backup.sh
* On **App Server 2** (stapp02):
* /scripts/news\_backup.sh
* On **App Server 3** (stapp03):
* /scripts/beta\_backup.sh

That way, you’re calling the correct script on the correct server. ✅

**NOW THE COMMAND LINE:**

**Last login: Tue Sep 16 11:44:31 UTC 2025 on pts/0**

**thor@jumphost ~$ ssh-keygen -t rsa**

**ssh-copy-id clint@stbkp01.stratos.xfusioncorp.com**

**Generating public/private rsa key pair.**

**Enter file in which to save the key (/home/thor/.ssh/id\_rsa):**

**/home/thor/.ssh/id\_rsa already exists.**

**Overwrite (y/n)?**

**/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/home/thor/.ssh/id\_rsa.pub"**

**/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed**

**/usr/bin/ssh-copy-id: WARNING: All keys were skipped because they already exist on the remote system.**

**(if you think this is a mistake, you may want to use -f option)**

**thor@jumphost ~$ ssh tony@stapp01.stratos.xfusioncorp.com**

**tony@stapp01.stratos.xfusioncorp.com's password:**

**Last login: Tue Sep 16 11:46:43 2025 from 172.17.0.7**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$ sudo mkdir -p /scripts**

**[sudo] password for tony:**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$ sudo chown tony:tony /scripts**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$ vi /scripts/ecommerce\_backup.sh**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$ chmod +x /scripts/ecommerce\_backup.sh**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$ ssh steve@stapp02.stratos.xfusioncorp.com**

**steve@stapp02.stratos.xfusioncorp.com's password:**

**Last login: Tue Sep 16 11:58:25 2025 from 172.17.0.4**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$ sudo mkdir -p /scripts**

**[sudo] password for steve:**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$ sudo chown steve:steve /scripts**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$ vi /scripts/news\_backup.sh**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$ chmod +x /scripts/news\_backup.sh**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$ ssh banner@stapp03.stratos.xfusioncorp.com**

**banner@stapp03.stratos.xfusioncorp.com's password:**

**Last login: Tue Sep 16 11:59:11 2025 from 172.17.0.5**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$ sudo mkdir -p /scripts**

**[sudo] password for banner:**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$ sudo chown banner:banner /scripts**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$ vi /scripts/beta\_backup.sh**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$ chmod +x /scripts/beta\_backup.sh**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$ /scripts/<scriptname>.sh**

**-bash: scriptname: No such file or directory**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$**

**[banner@stapp03 ~]$ /scripts/beta\_backup.sh**

**/scripts/beta\_backup.sh: line 9: zip: command not found**

**The authenticity of host 'stbkp01.stratos.xfusioncorp.com (172.17.0.8)' can't be established.**

**ED25519 key fingerprint is SHA256:7A9m4R27Qt85WP/r4sHBIXkufV/yBrFylbiMFVjp43k.**

**This key is not known by any other names**

**Are you sure you want to continue connecting (yes/no/[fingerprint])? yes**

**Warning: Permanently added 'stbkp01.stratos.xfusioncorp.com' (ED25519) to the list of known hosts.**

**clint@stbkp01.stratos.xfusioncorp.com's password:**

**Permission denied, please try again.**

**clint@stbkp01.stratos.xfusioncorp.com's password:**

**Permission denied, please try again.**

**clint@stbkp01.stratos.xfusioncorp.com's password:**

**stat local "/backup/xfusioncorp\_beta.zip": No such file or directory**

**Beta backup completed.**

**[banner@stapp03 ~]$ exit**

**logout**

**Connection to stapp03.stratos.xfusioncorp.com closed.**

**[steve@stapp02 ~]$ '**

**>**

**>**

**-bash: unexpected EOF while looking for matching `''**

**-bash: syntax error: unexpected end of file**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$ /scripts/news\_backup.sh**

**/scripts/news\_backup.sh: line 9: zip: command not found**

**The authenticity of host 'stbkp01.stratos.xfusioncorp.com (172.17.0.8)' can't be established.**

**ED25519 key fingerprint is SHA256:7A9m4R27Qt85WP/r4sHBIXkufV/yBrFylbiMFVjp43k.**

**This key is not known by any other names**

**Are you sure you want to continue connecting (yes/no/[fingerprint])? yes**

**Warning: Permanently added 'stbkp01.stratos.xfusioncorp.com' (ED25519) to the list of known hosts.**

**clint@stbkp01.stratos.xfusioncorp.com's password:**

**stat local "/backup/xfusioncorp\_news.zip": No such file or directory**

**News backup completed.**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$**

**[steve@stapp02 ~]$ exit**

**logout**

**Connection to stapp02.stratos.xfusioncorp.com closed.**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$ /scripts/ecommerce\_backup.sh**

**/scripts/ecommerce\_backup.sh: line 9: zip: command not found**

**The authenticity of host 'stbkp01.stratos.xfusioncorp.com (172.17.0.8)' can't be established.**

**ED25519 key fingerprint is SHA256:7A9m4R27Qt85WP/r4sHBIXkufV/yBrFylbiMFVjp43k.**

**This key is not known by any other names**

**Are you sure you want to continue connecting (yes/no/[fingerprint])? yes**

**Warning: Permanently added 'stbkp01.stratos.xfusioncorp.com' (ED25519) to the list of known hosts.**

**clint@stbkp01.stratos.xfusioncorp.com's password:**

**stat local "/backup/xfusioncorp\_ecommerce.zip": No such file or directory**

**Ecommerce backup completed.**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$**

**[tony@stapp01 ~]$**