

GO Version S3 Linux Environment Manual

1. Description

The test environment must be deployed before the test. Please refer to the "Go Version s3 Linux Environment Deployment Manual" for the deployment of the test environment.

1. Upload Files

You can upload any file, and here we randomly generate a 4GB file to upload

```
[root@VM_32_2_centos ~]# dd if=/dev/urandom of=4000M_20201214test.txt bs=10M count=1024
1024+0 records in
1024+0 records out
10737418240 bytes (11 GB) copied, 80.8011 s, 133 MB/s
[root@VM_32_2_centos ~]# █
```

The md5 value of the uploaded file is as follows:

```
[root@VM_32_2_centos ~]# md5sum 4000M_20201214test.txt
440805f38540162114f0ca61c529b75a 4000M_20201214test.txt
[root@VM_32_2_centos ~]# █
```

Execute "s3cmd put 4000M_20201214test.txt s3://polly"

```
[root@VM_32_2_centos ~]# s3cmd put 4000M_20201214test.txt s3://polly
upload: '4000M_20201214test.txt' -> 's3://polly/4000M_20201214test.txt' [part 1 of 205, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 164.87 MB/s done
upload: '4000M_20201214test.txt' -> 's3://polly/4000M_20201214test.txt' [part 2 of 205, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 170.50 MB/s done
upload: '4000M_20201214test.txt' -> 's3://polly/4000M_20201214test.txt' [part 3 of 205, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 171.06 MB/s done
upload: '4000M_20201214test.txt' -> 's3://polly/4000M_20201214test.txt' [part 4 of 205, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 172.09 MB/s done
upload: '4000M_20201214test.txt' -> 's3://polly/4000M_20201214test.txt' [part 5 of 205, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 171.17 MB/s done
upload: '4000M_20201214test.txt' -> 's3://polly/4000M_20201214test.txt' [part 6 of 205, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 168.22 MB/s done
upload: '4000M_20201214test.txt' -> 's3://polly/4000M_20201214test.txt' [part 7 of 205, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 171.69 MB/s done
upload: '4000M_20201214test.txt' -> 's3://polly/4000M_20201214test.txt' [part 8 of 205, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 170.47 MB/s done
upload: '4000M_20201214test.txt' -> 's3://polly/4000M_20201214test.txt' [part 9 of 205, 50MB] [1 of 1]
```

Check the log, start the initial upload, the upload time is "11:31:29"

```
[11:31:29.400][Infos][AyncUpload]Cache size 0
[11:31:29.091][Infos]GET BUCKET LOCATION[11:31:29.096][Infos]initiate multipart upload
[11:31:40.488][Infos][AyncUpload]Cache size 0
```

Check the log, the upload was successful, and the upload completed time "11:40:25"

```
[11:40:22.715][Infos][UploadBlock][5fd6dd3c09f5864e2ece3ff2][5119]Write shardmetas OK,take times 99 ms.
[11:40:22.790][Infos][UploadObject][5fd6dd3c09f5864e2ece3ff2]Upload object OK.
[11:40:22.825][Infos][CreateObject][151]polly/4000M_20201214test.txt OK.
[11:40:25.563][Infos][AyncUpload]Cache size 0
```

According to the upload time, we can calculate that the file upload speed is about 7.4MB/s=60mb/s

2. Download File

Download the file which was just uploaded and execute "s3cmd get s3://polly/4000M_20201214test.txt /home/"

```
[root@VM_32_2_centos ~]# s3cmd get s3://polly/4000M_20201214test.txt /home/
download: 's3://polly/4000M_20201214test.txt' -> '/home/4000M_20201214test.txt' [1 of 1]
16777216 of 10737418240 0% in 5s 2.74 MB/s
```

The result should be as shown below:

```
[11:46:50.102][Infos][DownloadShard][116][6905950397414162360]Download XCD59cYMs1C7ZySXVRzqRb OK, from 9367
[11:46:50.102][Infos][DownloadShard][116][6905950397414162360]Download BmKAJ5CpjBecjoMsFJeLui OK, from 17119
[11:46:50.103][Infos][DownloadShard][116][6905950397414162360]Download 9wMg4LDbfjZEVmSfgFQAx2 OK, from 14542
[11:46:50.104][Infos][DownloadShard][116][6905950397414162360]Download LsiAKf9Vpe7v4iWrLeZk8v OK, from 13473
[11:46:50.104][Infos][DownloadShard][116][6905950397414162360]Download YD8enaALo9enCE4bhYiuNL OK, from 14676
[11:46:50.104][Infos][DownloadShard][116][6905950397414162360]Download F9MGFYA9BFgeN7bsnxTJYE OK, from 20471
[11:46:50.105][Infos][DownloadShard][116][6905950397414162360]Download 2mgeNu9HqFBjkgQ3Mfgqoh OK, from 16423
[11:46:50.105][Infos][DownloadShard][116][6905950397414162360]Download HvcBWjWeEprwnfpVNS6Jte OK, from 19952
[11:46:50.108][Infos][DownloadShard][116][6905950397414162360]Download 6PGMhKzyfrZ2Ftz3sYv4Wk OK, from 9557
[11:46:50.108][Infos][DownloadShard][116][6905950397414162360]Download KTZtwNS6y46rdiNnqPtJHB OK, from 9218
[11:46:50.108][Infos][DownloadShard][116][6905950397414162360]Download 6nwaQnaMcrVhnx7nB4DYMC OK, from 18655
[11:46:50.111][Infos][DownloadShard][115][6905950397123103017]Download 6pjpX6ka7TOutLEclfvxfz OK, from 16759
[11:46:50.115][Infos][DownloadShard][98][6905950397123102853]Download SghzDp6zWesayGXZD1N5fj OK, from 11411
[11:46:50.116][Infos][DownloadShard][116][6905950397414162360]Download ASZu17EtKm91N2CfNr2erZ OK, from 18282
[11:46:50.116][Infos][DownloadShard][116][6905950397414162360]Download 7ojquwHwocx3mGNpso6dAA OK, from 14253
[11:46:50.116][Infos][DownloadBlock][116][6905950397414162360]Download LRCMode Block OK, take times 56 ms.
[11:46:50.120][Infos][DownloadShard][116][6905950397414162360]Download 6FDEzvHvFvWsohPZFYt1CGu OK, from 14549
[11:46:50.122][Infos][DownloadShard][116][6905950397414162360]Download G2oprc4Ucsv14b5ahF3HK OK, from 9068
[11:46:50.125][Infos][DownloadShard][116][6905950397414162360]Download 41dad0SeGu9fbhnxXdeEq3 OK, from 11773
[11:46:50.128][Infos][DownloadShard][116][6905950397414162360]Download 8nyqjEXSTkob6gxZgkWdZ6 OK, from 13125
[11:46:50.128][Infos][DownloadShard][116][6905950397414162360]Download TZV1xNtWsn3gZRs7ZTnob3 OK, from 7841
[11:46:50.131][Infos][DownloadShard][113][6905950397132202327]Download Cqgjf8pFbZVwoCrqKkv5aJ OK, from 17575
```

The download is now complete

```
[root@VM_32_2_centos ~]# s3cmd get s3://polly/4000M_20201214test.txt /home/
download: 's3://polly/4000M_20201214test.txt' -> '/home/4000M_20201214test.txt' [1 of 1]
10737418240 of 10737418240 100% in 1105s 9.26 MB/s done
[root@VM_32_2_centos ~]#
```

The result should be as shown below:

```
[12:04:47.597][Infos][DownloadBlock][5120][6905951879061640139]Download LRCMode Block OK, take times 99 ms.
[12:04:47.597][Infos][4000M_20201214test.txt] download successful.
```

md5

```
[root@VM_32_2_centos ~]# md5sum /home/4000M_20201214test.txt
440805f38540162114f0ca61c529b75a /home/4000M_20201214test.txt
[root@VM_32_2_centos ~]#
```

You can see that the md5 value of the downloaded file is the same as the md5 value of the uploaded file

4. Offline coding test

1) Offline coding

Modify the configuration file "conf/ytfs.properties"

#cache The parameter is specified as the local nas directory. Specify a common directory in

the test environment, such as: "/mnt/nas/cache=/mnt/nas"

#Back-end driver specified as:

nas

“driver=nas”

```
#cache参数指定为本地nas目录,在测试环境中指定一个普通目录即可,如:/mnt/nas
cache=/mnt/nas
#后端驱动指定为nas
driver=nas
#将本地nas的预编码文件同步到yotta,0不启动 1上传完毕删除NAS对应文件
startSync=0
```

Restart the s3 , log in to the user (refer to the environment deployment document), and execute the upload

```
[root@VM_32_2_centos ~]# s3cmd put 1000M_20201214test.txt s3://polly
upload: '1000M_20201214test.txt' -> 's3://polly/1000M_20201214test.txt' [part 1 of 20, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 167.77 MB/s done
upload: '1000M_20201214test.txt' -> 's3://polly/1000M_20201214test.txt' [part 2 of 20, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 164.16 MB/s done
upload: '1000M_20201214test.txt' -> 's3://polly/1000M_20201214test.txt' [part 3 of 20, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 165.78 MB/s done
upload: '1000M_20201214test.txt' -> 's3://polly/1000M_20201214test.txt' [part 4 of 20, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 163.77 MB/s done
upload: '1000M_20201214test.txt' -> 's3://polly/1000M_20201214test.txt' [part 5 of 20, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 166.35 MB/s done
upload: '1000M_20201214test.txt' -> 's3://polly/1000M_20201214test.txt' [part 6 of 20, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 173.69 MB/s done
upload: '1000M_20201214test.txt' -> 's3://polly/1000M_20201214test.txt' [part 7 of 20, 50MB] [1 of 1]
52428800 of 52428800 100% in 0s 167.40 MB/s done
```

Check the log, you can see that coding has started

```
[16:31:32.529][Infos]complete multipart upload polly 1000M_20201214test.txt 1
[16:31:32.530][Infos]0[16:31:37.474][Infos][UploadMultiPartFile]polly/1000M_20201214test.txt,Insert cache ok
[16:31:37.474][Infos]upload hash etag:"65ac4b7deb1db0b1d05366873bb6e076"
[16:31:37.474][Infos]File upload success,file md5 value : 65ac4b7deb1db0b1d05366873bb6e076
[16:31:42.356][Infos][UploadObjectToDisk][polly/1000M_20201214test.txt]Start encode object...
[16:31:46.282][Infos][AyncUpload]Cache size 1048576000
[16:32:01.283][Infos][AyncUpload]Cache size 1048576000
[16:32:16.283][Infos][AyncUpload]Cache size 1048576000
[16:32:31.293][Infos][AyncUpload]Cache size 1048576000
[16:32:31.459][Infos][PreAllocNode]Return 882 nodes,Excludes 0 nodes
[16:32:42.888][Infos][UploadObjectToDisk][polly/1000M_20201214test.txt]Upload object OK
```

Check that the cache directory has the file written into the cache directory

```
[root@VM_32_2_centos nas]# pwd
/mnt/nas
[root@VM_32_2_centos nas]# ls
BD dbcach s3cach
[root@VM_32_2_centos nas]# cd BD/
[root@VM_32_2_centos BD]# ls
qc
[root@VM_32_2_centos BD]# cd qc/
[root@VM_32_2_centos qc]# ls
BDqcgAPfHiy9uKjQvzdZPyfiVVb4LgLBe1PGfeYXSgntBDqcgAPfHiy9uKjQvzdZPyfiVVb4LgLBe1PGfeYXSgnt
[root@VM_32_2_centos qc]#
```

At this point, you can't see the uploaded file when viewing the bucket

2) Offline upload

Modify the configuration file “conf/ytfs.properties”

#Synchronize the pre-encoded files of the local nas to yotta,

0 - dont start

1 - After uploading, delete the corresponding NAS file

Check if startSync=1

Then restart s3 service without logging in to the user , check the log and start uploading


```

16:48:08.982][Infos][SyncBlock][5fd726c609f5864e2ece4039][325]Start upload block to sn 14
16:48:09.211][Infos][UploadShard][5fd726c609f5864e2ece4039][13][4]SendShard:RETURN OK 0,XqdGP2ztWvxYgWRlpGbYXX to 14018,Gettoken retr
1 times,take times 949/2249 ms
16:48:09.211][Infos][UploadShard][5fd726c609f5864e2ece4039][15][154]SendShard:RETURN OK 0,X6cvJ4tHUAP3kAMmAGy7On to 13939,Gettoken retr
1 times,take times 943/2157 ms
16:48:09.211][Infos][SyncBlock][5fd726c609f5864e2ece4039][373]Start upload block to sn 5
16:48:09.219][Infos][SyncBlock][5fd726c609f5864e2ece4039][385]Start upload block to sn 0
16:48:09.221][Infos][SyncBlock][5fd726c609f5864e2ece4039][378]Start upload block to sn 16
16:48:09.222][Infos][UploadShard][5fd726c609f5864e2ece4039][2][72]SendShard:RETURN OK 0,4HkXEyRREVCUoRcVa8DXIV to 14355,Gettoken retr
1 times,take times 846/2240 ms
16:48:09.222][Infos][UploadShard][5fd726c609f5864e2ece4039][1][138]SendShard:RETURN OK 0,6c3EsZ91YpetNzGfWJ9QwN to 13262,Gettoken retr
1 times,take times 731/2310 ms
16:48:09.222][Infos][UploadShard][5fd726c609f5864e2ece4039][0][109]SendShard:RETURN OK 0,HmZQrbvtHQBmC9gYcqRGKF to 13262,Gettoken retr
1 times,take times 609/2188 ms
16:48:09.222][Infos][UploadShard][5fd726c609f5864e2ece4039][79][24]SendShard:RETURN OK 0,FDZvU8D5cxn9SudFJdHzhK to 6625,Gettoken retr
1 times,take times 53/113 ms
16:48:09.238][Infos][SyncBlock][5fd726c609f5864e2ece4039][382]Start upload block to sn 18
16:48:09.238][Infos][SyncBlock][5fd726c609f5864e2ece4039][380]Start upload block to sn 16
16:48:09.239][Infos][UploadShard][5fd726c609f5864e2ece4039][17][73]SendShard:RETURN OK 0,D7n2oanbJU2v3bH2ghJ2m1 to 12673,Gettoken retr
1 times,take times 1556/2168 ms
16:48:09.248][Infos][SyncBlock][5fd726c609f5864e2ece4039][383]Start upload block to sn 1
16:48:09.249][Infos][SyncBlock][5fd726c609f5864e2ece4039][379]Start upload block to sn 3
16:48:08.982][Infos][SyncBlock][5fd726c609f5864e2ece4039][328]Start upload block to sn 17

```

After waiting for some time for the file to be uploaded successfully, check the upload success log as shown in the figure below:

```

try 1 times,take times 220/3928 ms
16:50:11.313][Infos][UploadBlock][5fd726c609f5864e2ece4039][397]Upload block OK,shardcount 164/164,take times 9728 m
16:50:11.418][Infos][UploadBlock][5fd726c609f5864e2ece4039][397]Write shardmetas OK,take times 104 ms.
16:50:11.473][Infos][SyncUpload][5fd726c609f5864e2ece4039]Upload object OK.
16:50:11.515][Infos][CreateObject][151]polly/1000M_20201214test.txt OK.
16:50:11.516][Infos][SyncUpload][ObjectID("5fd726c609f5864e2ece4039")]WriteMeta OK,polly/1000M_20201214test.txt

```

2) Verify uploads

Modify the configuration file "conf/ytfs.properties"

#Synchronize the pre-encoded files of the local nas to yotta,

0 - dont start

1 - After uploading, delete the corresponding NAS file

Check if startSync=0

Restart the s3 service, log into the user and check the bucket via "s3cmd ls"

You can see that the file uploaded in offline mode already exists..

```

2020-12-03 11:52 3221225472 s3://polly/tmpfile_polly_1a0591.txt4
2020-12-14 11:40 10737418240 s3://polly/4000M_20201214test.txt
2020-12-14 16:50 1048576000 s3://polly/1000M_20201214test.txt
[root@VM-22-2-centos nas1]#

```

Once the check has been performed, you can download the file to verify whether the file is correct. Refer to the previous download test, and subsequently the offline coding upload test is complete.

5. Multi-user upload test

For multi-user configuration, please refer to "Go version s3 linux environment deployment manual"

User 1

