

GVTV-distribute file system—data server

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- **Data Server Message**

proxy block upload

Request:

Offset(bytes)	Name	Type	Remark
0	Request length	4 bytes	
4	Request id	4 bytes	
8	Request type	4 bytes	0x0101
12	Encrypt	4 bytes	
16	Block id	12 bytes	File id 8bytes,chunk id 4 bytes
28	Start	4 bytes	Upload start offset
32	End	4 bytes	Upload end offset
36	Data server number	4 bytes	Backup data server number
20+n*20	IP	16 bytes	
36+n*20	port	4 bytes	

Response:

Offset(bytes)	Name	Type	Remark
0	Request length	4 bytes	
4	Request id	4 bytes	
8	Request type	4 bytes	0x0101
12	Encrypt	4 bytes	
16	Return code	4 bytes	

proxy block download

request :

Offset(bytes)	Name	Type	Remark
0	Request length	4 bytes	
4	Request id	4 bytes	
8	Request type	4 bytes	0x0102
12	Encrypt	4 bytes	
16	Block id	12 bytes	File id 8 bytes,chunk id 4 bytes
28	Start	4 bytes	Download start offset

32	End	4 bytes	Download end offset
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response :

Offset(bytes)	Name	Type	Remark
0	Request length	4 bytes	
4	Request id	4 bytes	
8	Request type	4 bytes	0x0102
12	Encrypt	4 bytes	
16	Return code	4 bytes	

data server back up chunk(Internal)

request :

Offset(bytes)	Name	Type	Remark
0	Request length	4 bytes	
4	Request id	4 bytes	
8	Request type	4 bytes	0x0103
12	Encrypt	4 bytes	
16	Block id	12 bytes	File id 8 bytes,chunk id 4 bytes
28	Block Size	4 bytes	

response :

Offset(bytes)	Name	Type	Remark
0	Request length	4 bytes	
4	Request id	4 bytes	
8	Request type	4 bytes	0x0103
12	Encrypt	4 bytes	
16	Return code	4 bytes	

Other Description

return code

value	description
200	success(PUT,GET,PUSH,BACKUP,DELELTE)
400	Invalid argument
404	Not found

500	Internal error
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data server 心跳包权重计算：

参考参数：磁盘容量，cpu 负载，带宽占用

计算方法：

```
avg_rate = (disk_usage_rate + cpu_usage_rate + bandwidth_usage_rate) / 3;
if(disk_usage_rate < 0.8 && cpu_usage_rate < 0.8 && bandwidth_usage_rate < 0.8)
    wight = 100 * avg_rate;
else
    wight = 100 * (0.8 + 0.2 * avg_rate);
```

以下参照 name server 文档 GVFS-NS.doc

data server hear beat——心跳

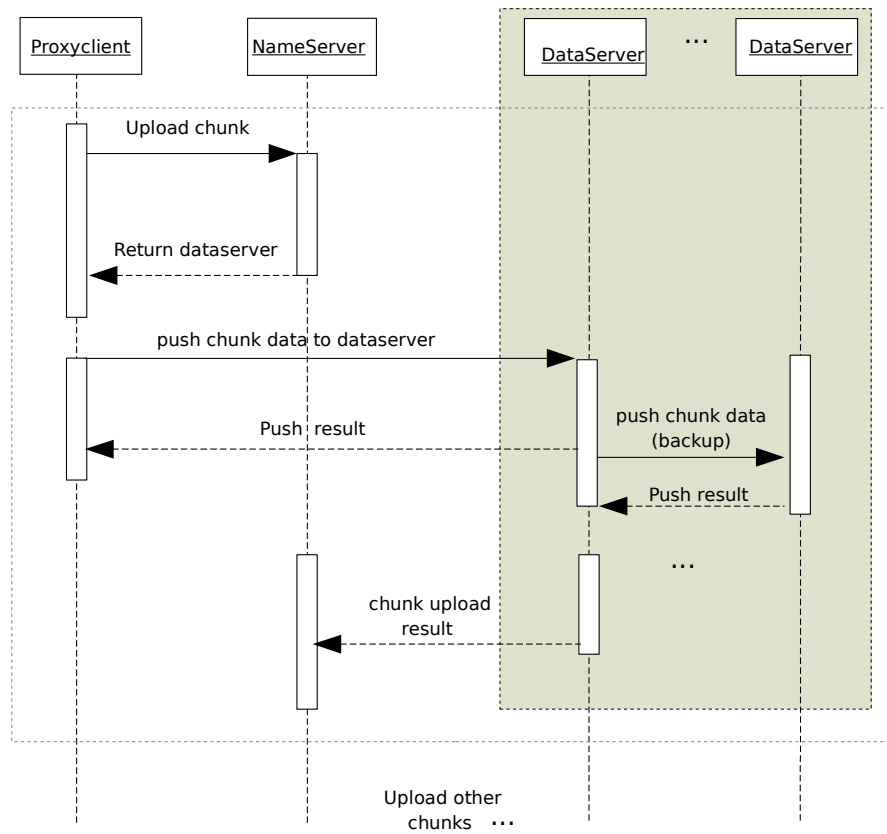
data server register——注册

data server delete chunk——删除指令

data server back up chunk——备份指令

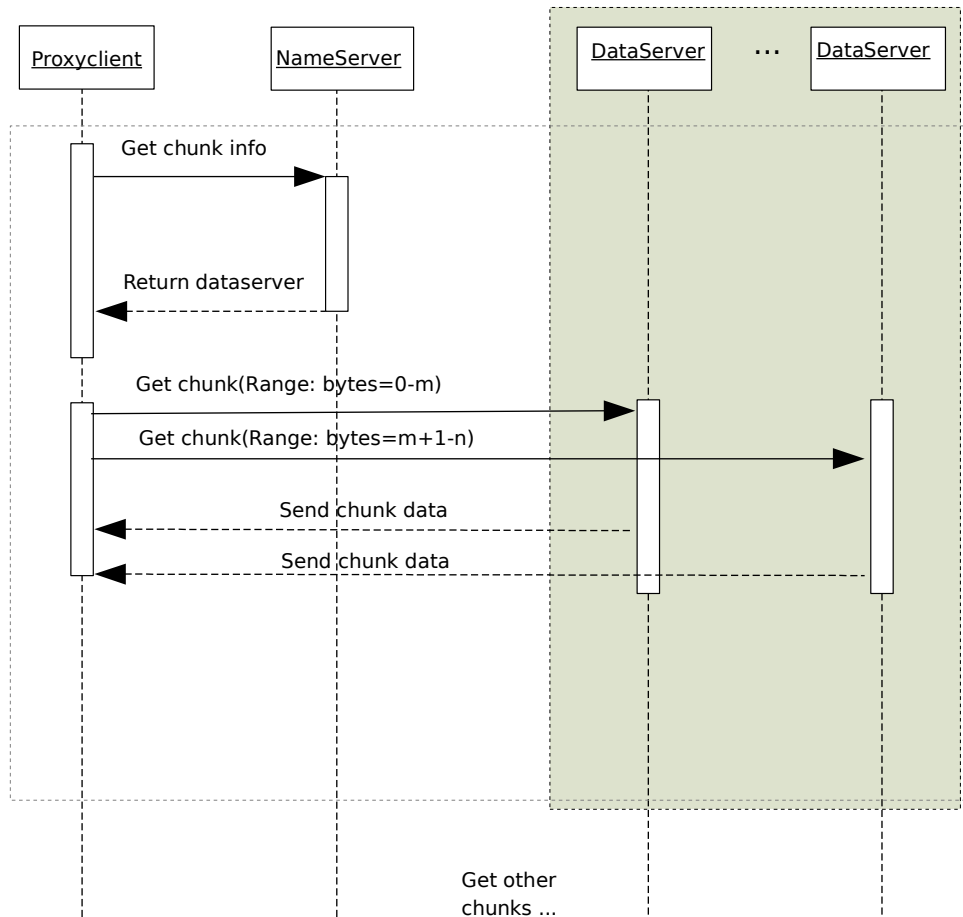
- 相关流程

upload :



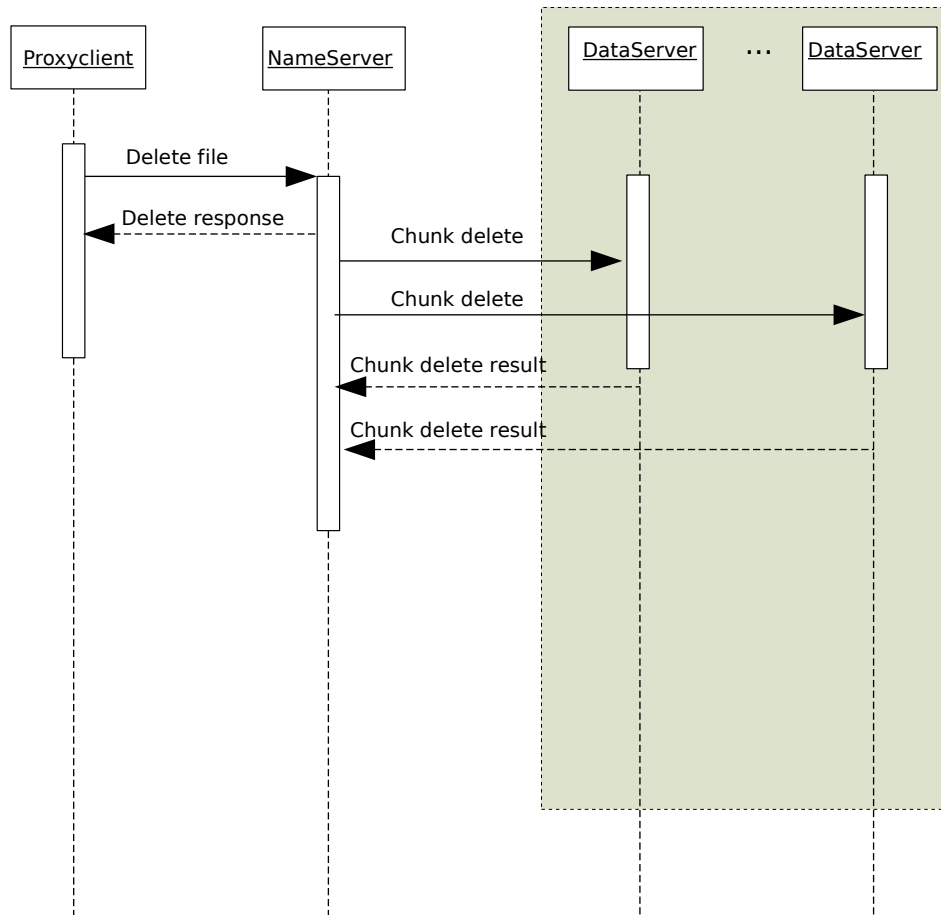
pic1 upload file

download :



pic2 download file

delete :



pic3 delete file