IPU_WEB_SERVER新增功能与权限梳理

目录

权限

用户信息

功能	ADMIN	CIDI
登录	1	1
注册	1	1
删除	1	0
修改密码	1	0

录像与日志拷贝

功能	ADMIN	CIDI
录像查询	1	1
录像拷贝usrdisk	./bag/ ./camera/full ./camera/key	./camera/full ./camera/key
录像拷贝Internaldisk	./bag/ ./camera/full ./camera/key	0
日志拷贝usrdisk	/ips/ /lte/	/ips/ /lte/
日志拷贝Internaldisk	/ips/ /lte/	0

用户管理

Handle

- 识别客户端类型：ADMIN CIDI
- 获取会话令牌：session_token
- 验证会话令牌：
  - 如果令牌无效，检查是否注册，如果未注册且不是注册指令，返回提示注册
  - 如果用户未注册是注册指令，调用Register进行注册
  - 如果用户已注册是登录指令，调用Login进行登录
- 根据客户端类型调用相应的PickHandle函数处理指令。（此处都是同一个PickHandle函数，如果后续进行权限控制，可以从这修改）

```
//处理命令
if(CLIENT_UNKNOWN == type) {
 AINFO << "Handling as CLIENT_UNKNOWN.";
 code = PickHandle(cmd, map, out_msg);
} else if(CLIENT_ADMIN == type) {
 AINFO << "Handling as CLIENT_ADMIN.";
 //TODO
 code = PickHandle(cmd, map, out_msg);
} else if(CLIENT_CIDI == type) {
 AINFO << "Handling as CLIENT_CIDI.";
 //TODO
 code = PickHandle(cmd, map, out_msg);
}
```

IdentifyClient

- 内置admin 为 CLIENT_ADMIN，新注册的用户默认设置为 CLIENT_CIDI

Login

```
curl -d '{ "cmd_type": "login", "username": "cidi", "password":
"c4ca4238a0b923820dcc509a6f75849b"}' http://172.16.133.63:8081/apiserver/cmd

{"data_map":
{"role":"CLIENT_CIDI","session_token":"7038u795szC9R2IWF9dCC7487V5jDy4S","stream_url":"ws://svm.pingtai.cidiserver.com:41001"},"result_code":0,"result_msg":"Login successful."}
```

Register

```
curl -d '{ "cmd_type": "register", "username": "new_uesr", "password":
"7096574cebeb85403bd77a8f6cbe151f","email":"test@qq.com"}'
http://172.16.133.63:8081/apiserver/cmd

{"data_map":"{}","result_code":0,"result_msg":"Registration successful."}
```

ResetPassword

```
curl -d '{ "cmd_type": "reset_password", "username": "new_user", "password":
"7096574cebeb85403bd77a8f6cbe151f","new_password":"21f3d99c69e2f2fe16d29a04846bc1ed
" ,"email":"test@qq.com","session_token":""}' http://172.16.133.63:8081/apiserver/cmd

{"data_map":"{}","result_code":0,"result_msg":"Password has been reset successfully."}
```
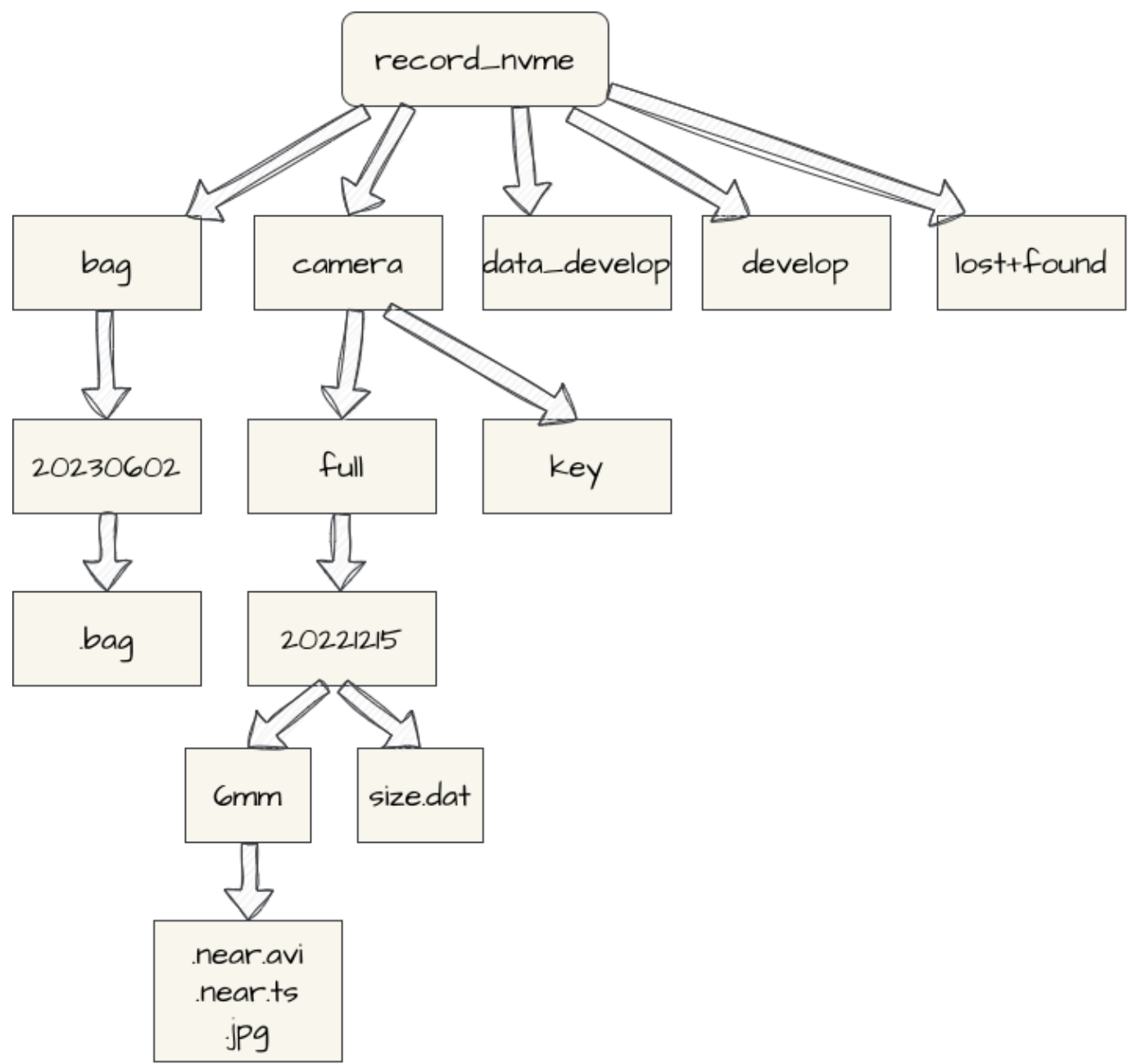
DeleteUser

```
curl -d '{ "cmd_type": "delete", "username": "cidi", "password":
"c4ca4238a0b923820dcc509a6f75849b","delete_username":"new_user"}'
http://172.16.133.63:8081/apiserver/cmd
```

Logout

- 在已登录的基础上删除会话

```
curl -d '{ "cmd_type": "logout", "session_token":""}' http://172.16.133.63:8081/apiserver/cmd

{"data_map":"{}","result_code":0,"result_msg":"Logout successful"}
```

录像日志文件显示

GetRecordDateList 和 GetLogDateList

- 列出有录像或日志文件的日期的列表
- 录像： /bag/ /camera/full/ /camera/key/
- 日志: /ips/ /lte/

```
函数一： 0/1表示flag
RecordLog(type, root_path, size, free_size, vec, 0);
if (CLIENT_ADMIN == client_type) {
  RecordLog(type, root_path, size, free_size, vec, 1);
}

函数二： 0/1表示yy
if(flag == 1){
  GetCopyDateList(root_path + "/bag/", 0, vec);
}
GetCopyDateList(root_path + "/camera/full/", 0, vec);
```

```
GetCopyDateList(root_path + "/camera/key/", 1, vec);

函数三:
if (1 == yy) item.type = "alarm";
else item.type = "time";
```

显示时间范围内的录像文件

- ***ShowRecordDateList*** : 显示某一天的全部录像文件(.avi .jpg)

```
curl -d '{ "cmd_type": "show_record_date_list",
"date":"20230901"}' http://172.16.133.63:8081/apiserver/cmd

{"data_map":{"file_count":4,"file_list":
[{"file":"20230901103724228.res.avi","folder":"20230901//.res"},
{"file":"20230901103724569.near.avi","folder":"20230901//6mm"},
{"file":"20230901103730021.jpg","folder":"20230901//6mm"},
{"file":"20230901103800014.jpg","folder":"20230901//6mm"}]},"result_code":0,"result_ms
g":"Query success"}
```

- ***ShowRecordDateListWithoutJPG*** : 显示某一天的全部录像文件(.avi)

- ***ShowRecordDateListWithTimeFilter*** : 显示某一天一个时间段的全部录像文件(.avi .jpg)

```
curl -d '{ "cmd_type":
"show_record_date_list_range","date":"20221215190000|20221215190200"}'
http://172.16.133.63:8081/apiserver/cmd

{"data_map":{"file_count":6,"file_list":
[{"file":"20221215190029716.near.avi","folder":"20221215//6mm"},
{"file":"20221215190129708.near.avi","folder":"20221215//6mm"},
{"file":"20221215190000031.jpg","folder":"20221215//6mm"},
{"file":"20221215190030028.jpg","folder":"20221215//6mm"},
{"file":"20221215190100026.jpg","folder":"20221215//6mm"},
{"file":"20221215190130024.jpg","folder":"20221215//6mm"}]},"result_code":0,"result_ms
g":"Query success"}
```

- ***ShowRecordDateListWithoutJPGWithTimeFilter*** : 显示某一天一个时间段的全部录像文件(.avi)

- ***ShowLogDateList***:显示某一天的录像文件

```
curl -d '{ "cmd_type": "get_log_date_list"}' http://172.16.133.63:8081/apiserver/cmd

{"data_map":[{"name":"20240715","type":"time"},{"name":"20240716","type":"time"},
{"name":"20240717","type":"time"},{"name":"20240718","type":"time"},
{"name":"20240719","type":"time"},{"name":"20240720","type":"time"},
{"name":"20240721","type":"time"},{"name":"20240722","type":"time"},
```

{"name":"20240723","type":"time"},{"name":"20240724","type":"time"},
{"name":"20240725","type":"time"},{"name":"20240726","type":"time"},
{"name":"20240727","type":"time"},{"name":"20240728","type":"time"},
{"name":"20240729","type":"time"},{"name":"20240730","type":"time"},
{"name":"20240731","type":"time"},{"name":"20240801","type":"time"},
{"name":"20240802","type":"time"},{"name":"20240803","type":"time"},
{"name":"20240804","type":"time"},{"name":"20240805","type":"time"},
{"name":"20240806","type":"time"},{"name":"20240807","type":"time"},
{"name":"mcu_log","type":"time"}],"result_code":0,"result_msg":"successful"}

对应指令

- HANDLE_CMD("get_record_date_list", GetRecordDateList);
- HANDLE_CMD("get_log_date_list", GetLogDateList);
- HANDLE_CMD("show_record_date_list", ShowRecordDateList);
- HANDLE_CMD("show_record_date_list_noJPG"， ShowRecordDateListWithoutJPG);
- HANDLE_CMD("show_record_date_list_range", ShowRecordDateListWithTimeFilter);
  HANDLE_CMD("show_record_date_list_range_noJPG"
  ,ShowRecordDateListWithoutJPGWithTimeFilter);
- HANDLE_CMD("show_log_date_list", ShowLogDateList);

录像日志文件拷贝

- ***RecordDateCopy***

  - 拷贝逻辑
    - 将单线程拷贝修改为多线程按批次拷贝，每个线程拷贝数量由batchsize设置
  - 拷贝权限
    - 修改admin身份和cidi的拷贝权限。且默认只拷贝/6mm/ 和隐藏目录/.res/ 中.avi 和 .mp4 结尾的数据

- ***LogDateCopy***

- ***QueryCopyProgress 和 QueryLogCopyProgress***

  对应指令

  - HANDLE_CMD("record_range_copy", RecordDateCopy);
  - HANDLE_CMD("log_date_copy", LogDateCopy);
  - HANDLE_CMD("get_copy_progress", QueryCopyProgress);
  - HANDLE_CMD("get_log_copy_progress", QueryLogCopyProgress);

```
[I 08/09/24 09:59:14.453 22980 15407 subway_app.cc 1340] total_size: 774108176 usb_free: 474487380

[I 08/09/24 09:59:14.453 22980 15407 subway_app.cc 1365] Copy and sync done, code 3
[I 08/09/24 09:59:14.453 22980 15407 subway_app.cc 1126] CopyHandler exit state 3
[I 08/09/24 09:59:14.453 22980 15407 subway_app.cc 1130] 现在结束 结束时间为1723168754
[I 08/09/24 09:59:14.453 22980 15407 subway_app.cc 1131] 总共耗时: 19秒

[I 08/09/24 09:59:14.864 22980 22991 request_handler.cc 15] ---------incoming------------
[I 08/09/24 09:59:14.864 22980 22991 request_handler.cc 17] key cmd_type value get_copy_progress
[I 08/09/24 09:59:14.864 22980 22991 request_handler.cc 17] key username value admin
[I 08/09/24 09:59:14.864 22980 22991 request_handler.cc 17] key password value c4ca4238a0b923820dcc50
9a6f75849b
[I 08/09/24 09:59:14.864 22980 22991 subway_app.cc 86] Handle enter
[I 08/09/24 09:59:14.864 22980 22991 subway_app.cc 95] type: 0
[I 08/09/24 09:59:14.864 22980 22991 subway_app.cc 99] session_token:
[I 08/09/24 09:59:14.864 22980 22991 subway_app.cc 165] Session token valid.
[I 08/09/24 09:59:14.864 22980 22991 subway_app.cc 1658] QueryRealProgress enter

[I 08/09/24 09:59:14.864 22980 22991 subway_app.cc 170] Command handling result: 3, message: USB空间
不够
[I 08/09/24 09:59:14.864 22980 22991 request_handler.cc 34] ---------Rely-----------
{"data_map":{"percent":100,"seconds":0,"total_size":1},"result_code":3,"result_msg":"USB空间不够"}
/dev/sda1        916G  367G  504G  43% /media/nvidia/539b83f5-49b7-4723-bf7e-dcc202d899ec
```

查询拷贝状态

- 已拷贝文件数/总拷贝文件数 来描述进度
- 设置不同的interval值，优化查询时间
- 用完成进度所消耗的时间粗略估计需要拷贝完成的总时间
  - 初始是100ms
  - 大于10s 500ms
  - 大于30s 1000ms
  - 大于60s 2000ms

```
cidi@cidi:~/vscodeWorkspace/ipu_wbserver/ipu_web_server_arm$ curl -d
'{"cmd_type":"get_copy_progress","username":"admin","password":"c4ca4238a0b92382
0dcc509a6f75849b"}' http://172.16.133.63:8081/apiserver/cmd

{"data_map":
 {
   "copied_files":25,
   "estimated_remaining_time":16,
   "interval":500,
   "percent":62,
   "seconds":27,
   "total_files":40
 }
 ,"result_code":0,"result_msg":"正在拷贝"}
```

查询状态

权限没有区别

- 设备状态
- 传感器信息

- 内部接口信息
- 外部接口信息
- 本机版本信息

标定

权限没有区别

更新

权限没有区别

导入

权限没有区别

- 模型导入
- 地图导入
- 参数导入

总结

已解决

- 用户信息登录注册退出等功能实现；
- 重构了录像和日志拷贝代码，拷贝的逻辑，实习的细节，内存空间的查询。在同样的拷贝任务中，（以20221215这天录像为例），拷贝时间提升了1/4;

遗留问题

- admin用户拷贝录像时，有些bag包里面的数据非常大，同时还需要拷贝internaldisk和usrdisk两份，容易出现负载过大导致服务器错误；


```
nvidia@miivii-tegra:~$ top

top - 10:18:53 up 3 days, 23:58,  5 users,  load average: 12.80, 10.64, 9.37
Tasks: 355 total,   2 running, 353 sleeping,   0 stopped,   0 zombie
%Cpu(s):  3.1 us, 13.8 sy,  0.0 ni, 82.5 id,  0.1 wa,  0.5 hi,  0.1 si,  0.0 st
KiB Mem : 32694480 total,   940984 free,  3109272 used, 28644224 buff/cache
KiB Swap: 16347232 total, 15909812 free,   437420 used. 27468680 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU %MEM     TIME+ COMMAND
27270 nvidia    20   0   33800  11644   8816 R 100.0  0.0   0:50.96 vulkaninfo
 9891 root      20   0 36.053g 790476  54308 S  22.8  2.4 3548:47 ips
10623 root      20   0 2807264 426548   4144 S   1.0  1.3 83:09.53 web_server
27852 nvidia    20   0   11012   3768   2936 R   1.0  0.0   0:00.19 top
 2542 root      19  -1  205296 145556 134360 S   0.3  0.4 105:16.74 systemd-journal
 5044 root      20   0    8364   2140   1996 S   0.3  0.0   3:20.24 sync_auto.sh
 5086 root      20   0    8364   2188   2044 S   0.3  0.0   1:24.80 miivii_5G.sh
 8822 root      20   0  300568  52744   2392 S   0.3  0.2  15:09.82 roscore
```

  - load average: 平均负载值非常高，系统在处理大量任务。一般情况下，负载平均值超过系统CPU核心数时可能处于过载状态。
  - CPU：CPU大部分时间空闲，82.5% idle， 可能是很多I/O操作或等待中的进程导致高负载，而不是CPU密集型任务。
- U盘离线升级完成后web页面显示接口超时

1. 提示接口请求超时

上一版本：V1.2.9.20231215_g

当前版本：V1.2.9.20231215_g

下一版本：V9.9.9.20240409_g

系统接口请求超时