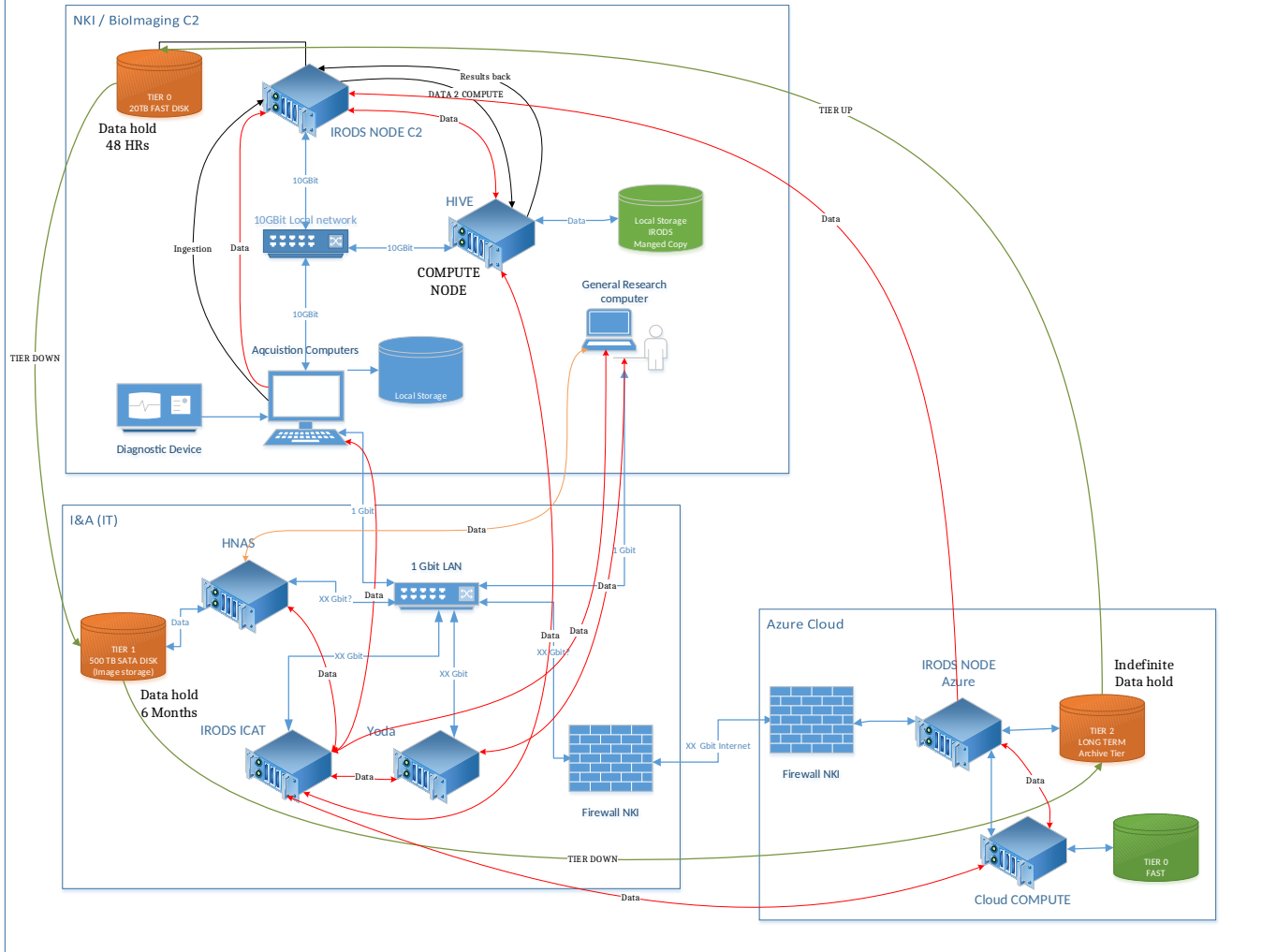
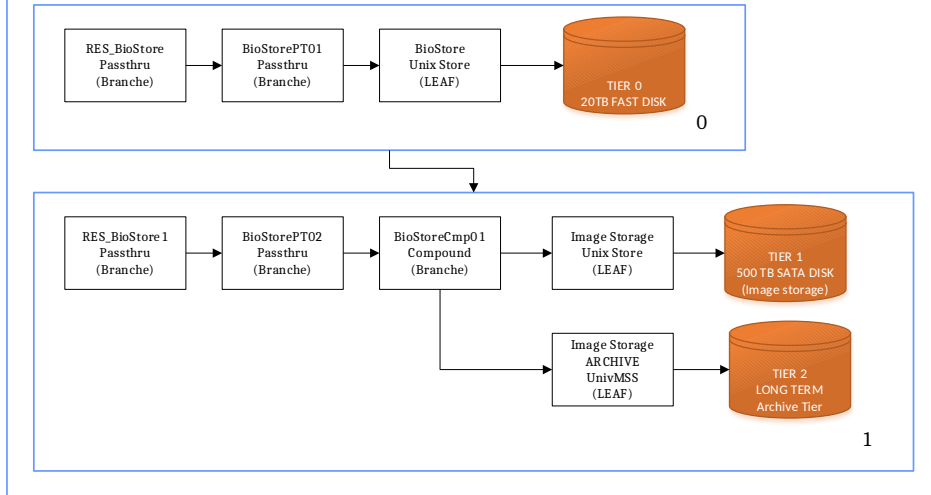


IT architectuur Biomaging Faciliteit iRODS



NKI Zone

BioImage TierGroup01



```
5
6 # set the default resource to eudat
7 acSetRescSchemeForCreate {
8     on ($objPath like "**/irods/archive/*") {
9         msiSetDefaultResc("rootImgResc","preferred");
10    }
11 }
12
13 acSetRescSchemeForRepl {
14     on ($objPath like "**/irods/archive/*") {
15         msiSetDefaultResc("rootImgResc","preferred");
16    }
17 }
18
19 acSetRescSchemeForCreate {msiSetDefaultResc("rootImgResc","pre
20 acSetRescSchemeForRepl {msiSetDefaultResc("rootImgResc","prefe
21
22 # on put action
23 # if the name of the resource group is "rootImgResc" replicate
24 # include destination filepath "imgStoreResc" only. A replicat
25 # imgStoreResc is local disk cache
26 # imgArchiveResc is Azure archive
27 acPostProcForPut {
28     #ON($rescName like "eudat" && $filePath like "/mnt/img
29     ON($filePath like "/mnt/img_storage/*") {
30         # writeln("serverLog","Execute command to re
31         delay("<PLUSET>1m</PLUSET><EF>1h DOUBLE UNTIL
32         #writeln("serverLog","filePath: $fil
33         *CompoundRescName="rootImgResc"
34         *CacheRescName ="*CompoundRescName;i
35         *ArchiveRescName ="*CompoundRescName;i
36         writeln("serverLog","Execute command
37 put");
38     }
39 }
40 }
```

```
#Get meta data
IRODS_FILE=$(echo "/mnt/img_storage/home/adm_ja.d.graaf/test24" | perl -pe 's/mnt[\\/]img_storage/nki/')
#echo "FILE "$IRODS_FILE >> /tmp/output2
#meta ls -d $IRODS_FILE >> /tmp/output2
IRODS_META=$(imeta ls -d $IRODS_FILE | grep -E 'attribute|value' | perl -pe 's/attribute: ([^\n]+\n\/\1/g' | perl -pe 's/value: ([^\n]+\n\/\1/g' )
echo " $(date +"%Y%m%d-%T") META DATA: " $IRODS_META >> /tmp/output2
#echo " $(date +"%Y%m%d-%T") COMMAND: " /usr/bin/azcopy copy $1 https://nkicfmpbwestp01st.blob.core.windows.net/irods$2 --metadata=$IRODS_META >> /tmp/output2
/usr/bin/azcopy copy $1 https://dopathologydatat01st.blob.core.windows.net/irods$2 --metadata=$IRODS_META --put-md5 --block-blob-tier='Archive' >> /tmp/output2
/usr/bin/azcopy copy $1 https://dopathologydatat01st.blob.core.windows.net/irods$2 --metadata=$IRODS_META --put-md5 --block-blob-tier='Cool' >> /tmp/output2
echo " $(date +"%Y%m%d-%T") STOP AZCopy" >> /tmp/output2
return

# function for staging a file $1 from the MSS to file $2 on disk
stageToCache () {
    # <your command to stage from MSS to cache> $1 $2
    # e.g: /usr/local/bin/rfcp rfioServerFoo:$1 $2
    #op=/usr/bin/azcopy copy
    echo " $(date +"%Y%m%d-%T") START AZCopy (dearchive) " $2 $1 > /tmp/output2
    export AZCOPY_AUTO_LOGIN_TYPE=SPN
    export AZCOPY_SPA_CLIENT_SECRET=
    export AZCOPY_SPA_APPLICATION_ID=
    export AZCOPY_TENANT_ID=
    # Set data to HOT tier
    echo " $(date +"%Y%m%d-%T") Dearchive to HOT tier " $2 >> /tmp/output2
    /usr/bin/azcopy set-properties https://dopathologydatat01st.blob.core.windows.net/irods$2 --block-blob-tier=hot >> /tmp/output2
    #Get Current tier
    AZ_TIER=$(/usr/bin/azcopy list https://dopathologydatat01st.blob.core.windows.net/irods$2 --machine-readable --properties BlobAccessTier | grep -E "BlobAccessTier" | ps
    echo " $(date +"%Y%m%d-%T") CURRENT TIER: "$AZ_TIER" : " $2 >> /tmp/output2
    # wait until tier is hot
    while [ "$AZ_TIER" != "Hot" ]
    do
        #Get current tier
        AZ_TIER=$(/usr/bin/azcopy list https://dopathologydatat01st.blob.core.windows.net/irods/$2 --machine-readable --properties BlobAccessTier | grep -E "BlobAccessTier"
        echo " $(date +"%Y%m%d-%T") CURRENT TIER: "$AZ_TIER" : " $2 >> /tmp/output2
        #Wait
        #random between 1-10second
        #sleep $( ( $RANDOM % 10 ) + 1 )s
        echo " $(date +"%Y%m%d-%T") waiting..." >> /tmp/output2
        # wait 30 seconds
        sleep 30s
    done
    AZ_TIER=$(/usr/bin/azcopy list https://dopathologydatat01st.blob.core.windows.net/irods/mnt/imgArch_storage/home/adm_ja.d.graaf/test27 --machine-readable --properties
    echo " $(date +"%Y%m%d-%T") CURRENT TIER: "$AZ_TIER" : " $2 >> /tmp/output2
    # Copy file to local
    echo " $(date +"%Y%m%d-%T") copy to local" >> /tmp/output2
    /usr/bin/azcopy copy https://dopathologydatat01st.blob.core.windows.net/irods$2 $1 >> /tmp/output2
    echo " $(date +"%Y%m%d-%T") DONE AZCopy (dearchive) " $2 $1 >> /tmp/output2
}
```

What do we need?



- Microsoft Azure Blob storage Plugin (like S3)
 - Leveraging parallel file transfers
 - Resumable file transfers
 - Add meta data
 - Leveraging storage tiering

