

Testing PV Gateways

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Production PV Gateways

A list of the various LCLS, LCLS-II, FACET, and Test Facilities gateways managed by EED Systems Group.

Name	Purpose	PVs served	Host	CAS port	Beacon Port	Beacon sent to	Document/Comment	Upgrade Status
LCLS								
gwEbeamServe	Serving LCLS PVs (Ebeam) to Photon	Readonly Write for selected PVs	lcls-daemon3	5080	5081	172.21.40.63 (Photon Gateway Subnet)	Design Admin Allow all Deny OTRS:DMP1:695:.*	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
gwEbeamServeWF	Serving LCLS PVs (Ebeam) to Photon	Readonly Write for selected PVs	lcls-daemon3	5079	5081	172.21.40.63 (Photon Gateway Subnet)	Deny all Allow OTRS:DMP1:695:.* (dedicated to serve XTCAV OTRDMP camera image PV)	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
gwLCLS4FACET	Serving LCLS PVs to FACET	Readonly	lcls-daemon10	5070	5069	172.27.75.255 (FACETCA)	Design Admin	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
gwLCLS4LCLSII	Serving LCLS PVs to LCLS-II	Read and Write	lcls-daemon10	5060	5069	172.27.131.255 (LCLS2IOC) and 172.27.11.255 (MCCSRV)		<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
gwLCLSPUB	Serving LCLS PVs to public	Readonly	lcls-prod01	5068	5069	134.79.151.255 (DMZ)	Admin	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
gwLCLSARCH0	Serving LCLS and LCLS-II PVs to Archiver on DMZ	Readonly	lcls-prod01	5076	5069	134.79.151.255 (DMZ)	.* ALLOW (default) Deny a list refer gwLCLSARCH*.dat	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
gwLCLSARCH1	Serving LCLS and LCLS-II PVs to Archiver on DMZ	Readonly	lcls-prod01	5077	5069	134.79.151.255 (DMZ)	.* DENY Allow portion in the list refer gwLCLSARCH*.dat	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
gwLCLSARCH2	Serving LCLS and LCLS-II PVs to Archiver on DMZ	Readonly	lcls-prod01	5078	5069	134.79.151.255 (DMZ)	.* DENY Allow portion in the list refer gwLCLSARCH*.dat	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019

gwLCLS ARCH3	Serving LCLS and LCLS-II PVs to Archiver on DMZ	Readonly	lcls- prod01	5079	5069	134.79.151.255 (DMZ)	. * DENY Allow portion in the list refer gwLCLSARCH*.dat	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
LCLS-II								
gwLCLSI I4LCLS	Serving LCLS-II PVs to LCLS	Read and Write	lcls2- daemo n10	5060	5069	172.27.3.255 (LCLSIOC) and 172.27.11.255 (MCCSRV)		<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
FACET								
gwFACE T4LCLS	Serving FACET PVs to LCLS	Readonly	facet- daemo n1	5070	5069	172.27.11.255 (LCLSCA)	Design Admin	<input type="checkbox"/> Upgrade to 64-bit EPICS7
gwFACE TPUB	Serving FACET PVs to public	Readonly	lcls- prod01	5063	5069	134.79.151.255 (DMZ)	Design	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
gwEXP2 FACET	Serving Fedora based PCOEdge Camera PVs in B244 to FACET controls	Readonly Write allowed from facet-srv20 to slac-dev-fed	lcls- prod01	5062	5069	facet-srv*: 172.27.72.28 172.27.72.22 172.27.72.23	Not in use currently	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7
gwFACE TARCH	Serving FACET PVs to Archiver on DMZ	Readonly	lcls- prod01	5075	5069	134.79.151.255 (DMZ)	Allow all	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019
Test Facilities								
gwACCT ESTPUB	Serving Test Facilities PV to public	Readonly	testfac- daemo n2	5048	5049	134.79.219.255 (LCLSDEV)	doc	<input type="checkbox"/> Upgrade to 64-bit EPICS7
Cryo								
gwCRY O4LCLS	Serving Cryo PVs to LCLS	Read and Write	cryo- daemo n1	5061	5069	172.27.43.255 172.27.11.255 134.79.151.21	. * ALLOW . * ALLOW CANWRITE	<input checked="" type="checkbox"/> Upgrade to 64-bit EPICS7 22 Aug 2019

LCLS Gateway Test Procedures

lcls-daemon3

gwEbeamServe:

1. Change `/etc/init.d/st.gwEbeamServe` on `lcls-daemon3` to use `CMDPATH=/usr/local/lcls/tools/gateway/script/st.gwEbeamServe64`
2. Restart gateway:

```
[laci@lcls-daemon3]$ /etc/init.d/st.gwEbeamServe restart
```

3. Verify that all LCLSIOC subnet PVs **except** for `OTRS:DMP1:695:*` PVs can be seen from Photon/PCDS subnet clients.
4. Verify that the `lclshome->Network (Global)->PV Gateway Diag->Ebeam Serve` display is repopulated after the restart.
5. Check `/u1/lcls/tools/gateway/gwEbeamServe.log` for errors.

gwEbeamServeWF:

1. Change `/etc/init.d/st.gwEbeamServeWF` on `lcls-daemon3` to use `CMDPATH=/usr/local/lcls/tools/gateway/script/st.gwEbeamServeWF64`
2. Restart gateway:

```
[laci@lcls-daemon3]$ /etc/init.d/st.gwEbeamServeWF restart
```

3. Verify that **only** OTRS:DMP1:695:* PVs can be seen from Photon/PCDS subnet clients.
4. Verify that the lclshome->Network (Global)->PV Gateway Diag->Ebeam Serve WF display is repopulated after the restart.
5. Check /u1/lcls/tools/gateway/gwEbeamServeWF.log for errors.

lcls-daemon10

gwLCLS4FACET:

1. Change /etc/init.d/st.gwLCLS4FACET on lcls-daemon10 to use CMDPATH=/usr/local/lcls/tools/gateway/script/st.gwLCLS4FACET64
2. Restart gateway:

```
[laci@lcls-daemon10]$ /etc/init.d/st.gwLCLS4FACET restart
```

3. Verify that LCLSIOC subnet PVs can be seen from FACETCA subnet clients.
4. Verify that the lclshome->Network (Global)->PV Gateway Diag->LCLS 4 FACET display is repopulated after the restart.
5. Check /u1/lcls/tools/gateway/gwLCLS4FACET.log for errors.

gwLCLS4LCLSII:

1. Change /etc/init.d/st.gwLCLS4LCLSII on lcls-daemon10 to use CMDPATH=/usr/local/lcls/tools/gateway/script/st.gwLCLS4LCLSII_64
2. Restart gateway:

```
[laci@lcls-daemon10]$ /etc/init.d/st.gwLCLS4LCLSII restart
```

3. Verify that LCLSIOC subnet PVs can be seen from LCLS2IOC subnet clients.
4. Check /u1/lcls/tools/gateway/gwLCLS4LCLSII.log for errors.

lcls-prod01

gwLCLSPUB:

1. Change /etc/init.d/st.gwLCLSPUB on lcls-prod01 to use CMDPATH=/afs/slac/g/lcls/tools/gateway/script/st.gwLCLSPUB64
2. Restart gateway:

```
[laci@lcls-prod01]$ /etc/init.d/st.gwLCLSPUB restart
```

3. Verify that LCLS production PVs can be seen when running lclshome on LCLSDEV/LCLSDMZ nodes (e.g., mcclogin).
4. Verify that the lclshome->Network (Global)->PV Gateway Diag->LCLS PUB display is repopulated after the restart.
5. Check /nfs/slac/g/lcls/tools/gateway/gwLCLSPUB.log for errors.

gwLCLSARCH0:



Archiver Gateways

Archiver Gateways should be stopped and restarted one at a time to independently verify that ACLs are working properly.

1. Change /etc/init.d/st.gwLCLSARCH0 on lcls-prod01 to use CMDPATH=/afs/slac/g/lcls/tools/gateway/script/st.gwLCLSARCH0_64
2. Restart gateway:

```
[laci@lcls-prod01]$ /etc/init.d/st.gwLCLSARCH0 restart
```

3. Verify that the lclshome->Network (Global)->PV Gateway Diag->LCLS ARCH0 display is repopulated after the restart.

4. Check /nfs/slac/g/lcls/tools/gateway/gwLCLSARCH0.log for errors.

gwLCLSARCH1:



Archiver Gateways

Archiver Gateways should be stopped and restarted one at a time to independently verify that ACLs are working properly.

1. Change /etc/init.d/st.gwLCLSARCH1 on lcls-prod01 to use CMDPATH=/afs/slac/g/lcls/tools/gateway/script/st.gwLCLSARCH1_64
2. Restart gateway:

```
[laci@lcls-prod01]$ /etc/init.d/st.gwLCLSARCH1 restart
```

3. Verify that the lclshome->Network (Global)->PV Gateway Diag->LCLS ARCH1 display is repopulated after the restart.
4. Check /nfs/slac/g/lcls/tools/gateway/gwLCLSARCH1.log for errors.

gwLCLSARCH2:



Archiver Gateways

Archiver Gateways should be stopped and restarted one at a time to independently verify that ACLs are working properly.

1. Change /etc/init.d/st.gwLCLSARCH2 on lcls-prod01 to use CMDPATH=/afs/slac/g/lcls/tools/gateway/script/st.gwLCLSARCH2_64
2. Restart gateway:

```
[laci@lcls-prod01]$ /etc/init.d/st.gwLCLSARCH2 restart
```

3. Verify that the lclshome->Network (Global)->PV Gateway Diag->LCLS ARCH2 display is repopulated after the restart.
4. Check /nfs/slac/g/lcls/tools/gateway/gwLCLSARCH2.log for errors.

gwLCLSARCH3:



Archiver Gateways

Archiver Gateways should be stopped and restarted one at a time to independently verify that ACLs are working properly.

1. Change /etc/init.d/st.gwLCLSARCH3 on lcls-daemon10 to use CMDPATH=/afs/slac/g/lcls/tools/gateway/script/st.gwLCLSARCH3_64
2. Restart gateway:

```
[laci@lcls-prod01]$ /etc/init.d/st.gwLCLSARCH3 restart
```

3. Verify that the lclshome->Network (Global)->PV Gateway Diag->LCLS ARCH3 display is repopulated after the restart.
4. Check /nfs/slac/g/lcls/tools/gateway/gwLCLSARCH3.log for errors.

lcls2-daemon10

gwLCLSII4LCLS:

1. Change /etc/init.d/st.gwLCLSII4LCLS on lcls2-daemon10 to use CMDPATH=/usr/local/lcls/tools/gateway/script/st.gwLCLSII4LCLS64
2. Restart gateway:

```
[laci@lcls2-daemon10]$ /etc/init.d/st.gwLCLSII4LCLS restart
```

3. Verify that LCLS2IOC subnet PVs are readable and writable from LCLSIOC subnet clients.
4. Check /u1/lcls/tools/gateway/gwLCLSI4LCLS.log for errors.

FACET Gateway Test Procedures

facet-daemon1

gwFACET4LCLS:

1. Change /etc/init.d/st.gwFACET4LCLS on facet-daemon1 to use CMDPATH=/usr/local/facet/tools/gateway/script/st.gwFACET4LCLS64
2. Restart gateway:

```
[flaci@facet-daemon1]$ /etc/init.d/st.gwFACET4LCLS restart
```

3. Verify that FACETCA subnet PVs can be seen from LCLSIOC subnet clients.

lcls-prod01

gwFACETPUB:

1. Change /etc/init.d/st.gwFACETPUB on lcls-prod01 to use CMDPATH=/afs/slac/g/lcls/tools/gateway/script/st.gwFACETPUB64
2. Restart gateway:

```
[laci@lcls-prod01]$ /etc/init.d/st.gwFACETPUB restart
```

3. Verify that FACETCA subnet PVs can be seen when running facethome on LCLSDEV/LCLSDMZ nodes (e.g., mcclogin).

gwEXP2FACET:

1. Change /etc/init.d/st.gwEXP2FACET on lcls-prod01 to use CMDPATH=/usr/local/lcls/tools/gateway/script/st.gwEXP2FACET64
2. Restart gateway:

```
[laci@lcls-prod01]$ /etc/init.d/st.gwEXP2FACET restart
```



gwEXP2FACET Note

gwEXP2FACET not currently in use.

gwFACETARCH:

1. Change /etc/init.d/st.gwFACETARCH on lcls-daemon10 to use CMDPATH=/usr/local/lcls/tools/gateway/script/st.gwFACETARCH64
2. Restart gateway:

```
[laci@lcls-prod01]$ /etc/init.d/st.gwFACETARCH restart
```

3. Verify that the following PV patterns are archived in the FACET Archiver according to the permissions below:

```
[laci@lcls-prod01]$ cat $TOOLS/gateway/config/gwFACETARCH.dat
...
# support the gateway internal statistics
# Serve all FACET PVs
.* ALLOW
```

Test Facilities Gateway Test Procedures

testfac-daemon2

gwACCTESTPUB:

1. Change `/etc/init.d/st.gwACCTESTPUB` on `testfac-daemon2` to use `CMDPATH=/afs/slac/g/acctest/tools/gateway/script/st.gwACCTESTPUB64`
2. Restart gateway:

```
[acctf@testfac-daemon2]$ /etc/init.d/st.gwACCTESTPUB restart
```

3. Verify that ACCTESTFAC subnet PVs can be seen when running `xtahome` on LCLSDEV/LCLS DMZ nodes (e.g., `mcclogin`).
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Cryo Gateway Test Procedures

cryo-daemon1

gwCRYO4LCLS:

1. Change `/etc/init.d/st.gwCRYO4LCLS` on `cryo-daemon1` to use `CMDPATH=/usr/local/lcls/tools/gateway/script/st.gwCRYO4LCLS64`
2. Restart gateway:

```
[laci@cryo-daemon1]$ /etc/init.d/st.gwCRYO4LCLS restart
```

3. Verify that CRYOSRV subnet PVs can be seen from LCLSIOC and LCLS2IOC subnet clients.

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- [Testing EPICS Extensions](#)