

Aquila Live Stat Mux

Nov 2023

Stat Mux in Aquila Live is pretty much the same from the user perspective as it has been since the inception of Encoding Live / MKSP and nCC (from a user perspective).

There is now a difference in the configuration of Stat Mux, this is mainly because every system deployed used the same multicast addresses between the EL and Mux, this is okay if you only have one system, but problematic if you have multiple systems.

The Multiplexer installer has also changed to allow the specification of stat mux parameters during the installation phase.

Multiplexer Installation

One of the steps, when installing the Multiplexer is to specify what Stat Mux multicast address(s) to use, this is done from the command line when doing the install.

```
./installer-multiplexer-el8-20.4.0-6421.sh compact --configure --serverID Mux01 --localIP 192.168.1.213  
--controllerIP 192.168.1.225 --muxAnnouncer 239.225.0.1 --statmuxAnnouncer 239.225.0.1 --  
simulcryptAnnouncer 239.225.0.1 --bisscaAnnouncer 239.225.0.1 --licenseServerIP 192.168.1.225
```

The important part from the stat mux perspective is the announcer address

```
--muxAnnouncer 239.225.0.1 --statmuxAnnouncer 239.225.0.1 --simulcryptAnnouncer 239.225.0.1 --bisscaAnnouncer 239.225.0.1
```

The address in the above example has been used for all announcers, each announcer uses a unique port.

Finding Announcer Address

If you performed the installation, then great, you probably know the announcer address, however you could be working on a system you have never seen before, and need this announcer information.

We can get this information from the Multiplexer, but the value for the statmuxAnnouncer is in one of the PODs. To access this, first we need to bring up the Kubernetes dashboard, this can be done from an SSH session using the following:

```
k9s
```

This will launch the k9s application

Context: default

Cluster: default

User: default

K9s Rev: v0.27.3 < v0.28.0

K8s Rev: v1.24.10+k3s1

CPU: 1%

MEM: 16%

<0> all

<1> mediakind

<2> default

<a> Attach

<ctrl-d> Delete

<d> Describe

<e> Edit

<f> Help

<ctrl-k> Kill

<l> Logs

<p> Logs Previous


<shift-f> Port-Forward

<s> Shell

<n> Show Node

<f> Show PortForward

<y> YAML



Pods(mediakind)[47]

NAME	PF	READY	RESTARTS	STATUS	CPU	MEM	%CPU/R	%CPU/L	%MEM/R	%MEM/L	IP	NODE
command-95fb49bcd-tggng	●	1/1	20	Running	0	28	0	0	88	44	10.42.0.3	mediakin
controller-metrics-exporter-d88cf74f-t7zmm	●	1/1	20	Running	1	24	10	0	77	19	10.42.0.16	mediakin
esam-proxy-5959f8874d-jsx7n	●	1/1	20	Running	1	29	10	0	91	22	10.42.0.20	mediakin
etcd-controller1-0	●	1/1	25	Running	17	63	170	3	99	24	10.42.0.253	mediakin
failover-api-58f65db49b-jk6fp	●	3/3	70	Running	6	319	20	0	83	20	10.42.0.21	mediakin
flow-649bd86cbb-bl8rx	●	1/1	30	Running	3	38	30	0	79	14	10.42.0.240	mediakin
fluent-bit-77dff75476-zlh14	●	1/1	20	Running	4	35	4	0	56	7	10.42.0.239	mediakin
interface-discovery-57f45c8d4d-b8qh2	●	1/1	25	Running	3	93	30	0	97	4	10.42.0.18	mediakin
keepalived-mdwgn	●	1/1	20	Running	72	31	144	36	198	49	192.168.255.1	mediakin
kps-kube-state-metrics-75dbbdddcc-tdvks	●	1/1	20	Running	1	31	1	0	98	24	10.42.0.2	mediakin
kps-operator-5cf59bb7f5-t4zql	●	1/1	20	Running	1	53	1	0	55	20	10.42.0.247	mediakin
kps-prometheus-node-exporter-m7rbx	●	1/1	20	Running	1	17	1	0	54	13	192.168.255.1	mediakin
license-manager-0	●	3/3	73	Running	12	91	40	0	94	11	192.168.255.1	mediakin
metrics-grafana-5c7b6fc5b8-lxcnt	●	3/3	60	Running	2	251	0	0	157	39	10.42.0.249	mediakin
mongo-operator-85ddf84cb6-tb5b4	●	1/1	20	Running	0	1	0	0	8	4	10.42.0.5	mediakin
mongodb-replicaset-controller1-0	●	2/2	40	Running	35	351	17	2	64	16	192.168.255.1	mediakin
prometheus-kps-prometheus-0	●	2/2	40	Running	14	793	4	2	259	37	10.42.0.241	mediakin
rabbit-operator-28324144-2kmgq	●	0/1	0	Completed	0	0	0	0	0	0	10.42.0.23	mediakin
rabbit-operator-28324145-vpc2j	●	0/1	0	Completed	0	0	0	0	0	0	10.42.0.24	mediakin
rabbit-operator-28324146-t6vc2	●	0/1	0	Completed	0	0	0	0	0	0	10.42.0.25	mediakin
rabbit-operator-28324147-mgdtm	●	1/1	0	Running	0	0	0	0	0	0	10.42.0.26	mediakin
rabbitmq-ha-controller1-0	●	1/1	2	Running	26	209	13	2	81	20	10.42.0.254	mediakin
redis-6b679749d-kl5lq	●	1/1	20	Running	4	12	40	0	4	1	10.42.0.252	mediakin
server-api-67b6d589c8-7lzbq	●	1/1	20	Running	7	37	70	1	78	29	10.42.0.7	mediakin
server-daemon-8b6f9d689-5k8rh	●	1/1	8	Running	2	47	n/a	0	n/a	18	192.168.255.1	mediakin
server-monitor-74b8975bd9-gkffq	●	1/1	20	Running	6	42	60	1	89	33	10.42.0.244	mediakin
service-api-7b848f5fcb-cspsj	●	2/2	48	Running	8	100	40	0	104	31	10.42.0.243	mediakin
snmp-notification-5b6c5f85c7-nt77w	●	1/1	33	Running	2	53	20	0	83	20	10.42.0.245	mediakin
statistic-6b68bfc79d-rbfff8	●	1/1	20	Running	0	23	0	0	73	18	10.42.0.246	mediakin
stream-processor-asi-55d45775f5-nfhz1	●	1/1	19	Running	3	11	n/a	n/a	n/a	n/a	192.168.255.1	mediakin
stream-processor-biss-ca-68df799467-ssjht	●	1/1	19	Running	16	9	n/a	n/a	n/a	n/a	192.168.255.1	mediakin
stream-processor-config-5bcbbbf8b-pdrq4	●	1/1	19	Running	14	100	n/a	n/a	n/a	n/a	10.42.0.8	mediakin
stream-processor-content-extraction-548f45b9cd-jzkjc	●	1/1	63	Running	1	64	n/a	n/a	n/a	n/a	192.168.255.1	mediakin
stream-processor-content-extraction-proxy-64c9c86f5c-26m8x	●	1/1	19	Running	1	54	n/a	n/a	n/a	n/a	192.168.255.1	mediakin
stream-processor-mux-68755898f-n58pk	●	2/2	38	Running	25	120	n/a	n/a	n/a	n/a	192.168.255.1	mediakin
stream-processor-simulcrypt-6d678b448c-mfrqm	●	1/1	19	Running	16	11	n/a	n/a	n/a	n/a	192.168.255.1	mediakin
stream-processor-statmux-7cc8d75d85-dl95v	●	1/1	19	Running	12	11	n/a	n/a	n/a	n/a	192.168.255.1	mediakin
stream-processor-ui-connector-58595bdb74-flqld	●	1/1	19	Running	14	71	n/a	n/a	n/a	n/a	10.42.0.15	mediakin
support-package-6c7bbccf4f-lcfnw	●	2/2	40	Running	1	164	5	0	85	14	10.42.0.12	mediakin
template-api-6fddd9ff6d-x8dwc	●	1/1	33	Running	2	30	20	0	94	23	10.42.0.251	mediakin

← pod →

Scroll down and select the POD 'stream-processor-statmux-xxxxx' then press 's'

```
<K9s> Shell>> Pod: mediakind/stream-processor-statmux-7cc8d75d85-dl95v | Container: statmux
/opt/ericsson/stream-processing-statmux/bin $ ls
commit_sha.txt      smxMaster            smxMasterIni.json
/opt/ericsson/stream-processing-statmux/bin $
```

Show the contents of the folder using 'ls' and look for smxMasterIni.json

To find the announceAddress enter the following

```
cat smxMasterIni.json |grep announce
```

You will get an output similar to below:

```
"announceAddress": "239.225.0.1",
"announcePort": 15778,
"announce": {
  "statmux.announce.port": 15778,
  "statmux.announce.ttl": 64
}
```

To get out of the K9s use 'exit' then 'ctrl-c'

Using Announcer Address

The last big difference in v7 is that now you have to specify the announcer address in your services using and 'advanced parameter' in the Encoding Live service.

When creating the Encoding Live services for your stat mux, you need to add a parameter to the 'Advanced Parameters' page.

General	Input	Media processing	Encoding	Output	Advanced parameters
Parameter name		Value	Variants	Actions	
pcc.newClock		true			
rtp.keepStuffing		true			
mpeg2ts.statmux.cbr.stuffing		true			
statmux.useServiceNameInProfileName		true			
mpeg2ts.audio.NullPacketStuffing		true			
mpeg2ts.private.NullPacketStuffing		true			
statmux.announce.addr		239.225.0.1			

The advanced parameter is:

statmux.announce.addr	multicast
statmux.announce.addr	239.255.0.1

The above is just an example, you will need to use the multicast address from your system.

From:

<http://cameraangle.co.uk/> - WalkerWiki - wiki.alanwalker.uk

Permanent link:

http://cameraangle.co.uk/doku.php?id=aquila_live_stat_mux

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