package org.thingsboard.server.common.data.security;  
  
public enum Authority {  
   
 *SYS\_ADMIN*(0),  
 *TENANT\_ADMIN*(1),  
 *CUSTOMER\_USER*(2),  
 *REFRESH\_TOKEN*(10);

### 测试场景记录：

|  |  |
| --- | --- |
| 租户创建设备，非网关，会调用右边方法两次。 | RuleChainActorMessageProcessor  pushMsgToNode |
| Shell里调用该命令，可以模拟设备上报消息 | T2\_TEST\_TOKEN  curl -v -X POST -d '{"temperature":99}' http://localhost:8080/api/v1/T2\_TEST\_TOKEN/telemetry --header "Content-Type:application/json"  DeviceApiController.postTelemetry(...) |
|  | 具体给规则引擎发报文的位置，见RemoteRuleEngineTransportService的  @EventListener(ApplicationReadyEvent.class) public void onApplicationEvent(ApplicationReadyEvent applicationReadyEvent) {  方法里的代码：  ToRuleEngineMsg toRuleEngineMsg = ruleEngineConsumer.decode(record); *log*.trace("Forwarding message to rule engine {}", toRuleEngineMsg); if (toRuleEngineMsg.hasToDeviceActorMsg()) {  forwardToDeviceActor(toRuleEngineMsg.getToDeviceActorMsg()); } |
|  |  |
|  |  |

界面规则节点对应 rule\_node这张表

|  |  |
| --- | --- |
| 界面规则节点 | rule\_node这张表 |
| 新增节点时 | 提交metadata时候与其他节点参数的区别是没有id属性 |
| 新建了一个kafka节点 | 保存后日志立马打出来了连不上kafka Broker。说明如果没有连接，会立即启动连接。 |
| 新增规则链节点 | Request URL:  http://localhost:8080/api/ruleChains?limit=51&textSearch=input  没有匹配的。 |
| 规则引擎全局保存接口 | <https://demo.thingsboard.io/api/ruleChain/metadata>  RuleChainController ：190行  @PreAuthorize("hasAnyAuthority('TENANT\_ADMIN')") @RequestMapping(value = "/ruleChain/metadata", method = RequestMethod.*POST*) |
| 加载组件接口 | Request URL:  http://localhost:8080/api/components?componentTypes=FILTER,ENRICHMENT,TRANSFORMATION,ACTION,EXTERNAL  ComponentDescriptorController ：67行 |
| 代码点/代码入口 | Application使用rule engine，都是通过注入ActorSystemContext来使用，具体用法就是获取getAppActor()，然后getAppActor.tell(消息，发送者)。  @Autowired private ActorSystemContext actorContext;  共有六个类注入了ActorSystemContext，其中RemoteRuleEngineTransportService是接收来自kafka的消息，从而调动规则引擎，特别值得探究明白。  1）DefaultActorService类里有@PostConstruct public void initActorSystem() 这里初始化了ActorSystemContext，以及appActor|rpcManagerActor|statsActor  这三个actor.   1. RuleChainController里面只是查了下actorContext里面是否开启了debug模式。并无其他。   3）LocalTransportService  LocalTransportService里的调用有4处，都是actorContext.getAppActor().tell(wrapper, ActorRef.*noSender*());  4）RemoteCloudDeviceRegisterTransportService里的调用有1处  *log*.trace("Pushing message to local server: {}", toDeviceActorMsg); actorContext.getAppActor().tell(wrapper, ActorRef.*noSender*());  5）RemoteDeviceAlarmTransportService里的调用有1处  log.trace("Pushing message to local server: {}", toDeviceActorMsg); actorContext.getAppActor().tell(wrapper, ActorRef.noSender());  6）RemoteRuleEngineTransportService里的调用有1处  *log*.trace("Pushing message to local server: {}", toDeviceActorMsg); actorContext.getAppActor().tell(wrapper, ActorRef.*noSender*());  注入了actor上下文的类一共有六个：  1605599161(1) |

，

2020-10-26 11:02:30,704 [kafka-producer-network-thread | producer-tb-kafka-node-af06ca30-1737-11eb-87cd-d72b16c16163-DESKTOP-U1E6SDI] WARN o.apache.kafka.clients.NetworkClient - [Producer clientId=producer-tb-kafka-node-af06ca30-1737-11eb-87cd-d72b16c16163-DESKTOP-U1E6SDI] Connection to node -1 (localhost/127.0.0.1:9092) could not be established. Broker may not be available.

### 1、规则引擎全局保存接口

**Request URL:**

https://demo.thingsboard.io/api/ruleChain/metadata

**Request Method:**

POST

**Status Code:**

200

**Remote Address:**

104.196.24.70:443

**Referrer Policy:**

no-referrer-when-downgrade

1. **Response Headers**view source

**Access-Control-Allow-Credentials:**

true

**Access-Control-Allow-Origin:**

https://demo.thingsboard.io

**Cache-Control:**

no-cache, no-store, max-age=0, must-revalidate

**Content-Type:**

application/json

**Date:**

Mon, 26 Oct 2020 02:18:49 GMT

**Expires:**

0

**Pragma:**

no-cache

**Transfer-Encoding:**

chunked

**Vary:**

Origin

**Vary:**

Access-Control-Request-Method

**Vary:**

Access-Control-Request-Headers

**X-Content-Type-Options:**

nosniff

**X-XSS-Protection:**

1; mode=block

1. **Request Headers**view source

**Accept:**

application/json, text/plain, \*/\*

**Accept-Encoding:**

gzip, deflate, br

**Accept-Language:**

zh-CN,zh;q=0.9

**Connection:**

keep-alive

**Content-Length:**

3024

**Content-Type:**

application/json

**Cookie:**

\_ga=GA1.2.2117841865.1598847002; \_gcl\_au=1.1.714773472.1598847030; hubspotutk=13d47436490e1cdd22f4cbd7a2e5a5b9; \_\_hssrc=1; \_\_hstc=50149561.13d47436490e1cdd22f4cbd7a2e5a5b9.1598850303706.1603358197976.1603446975295.23; \_\_cfduid=d6f834a460ba1bb5fcf81162f650062eb1603678568

**Host:**

demo.thingsboard.io

**Origin:**

https://demo.thingsboard.io

**Referer:**

https://demo.thingsboard.io/ruleChains/8bffc0f0-1516-11eb-af98-19366df12767

**User-Agent:**

Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/70.0.3538.25 Safari/537.36 Core/1.70.3775.400 QQBrowser/10.6.4209.400

**X-Authorization:**

Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiIxMDMxMjQxNTQyQHFxLmNvbSIsInNjb3BlcyI6WyJURU5BTlRfQURNSU4iXSwidXNlcklkIjoiOGMzZTUwOTAtMTUxNi0xMWViLWFmOTgtMTkzNjZkZjEyNzY3IiwiZmlyc3ROYW1lIjoieGlhb2hlIiwibGFzdE5hbWUiOiJ4aWFvaGUiLCJlbmFibGVkIjp0cnVlLCJwcml2YWN5UG9saWN5QWNjZXB0ZWQiOnRydWUsImlzUHVibGljIjpmYWxzZSwidGVuYW50SWQiOiI4YmNkOGQ2MC0xNTE2LTExZWItYWY5OC0xOTM2NmRmMTI3NjciLCJjdXN0b21lcklkIjoiMTM4MTQwMDAtMWRkMi0xMWIyLTgwODAtODA4MDgwODA4MDgwIiwiaXNzIjoidGhpbmdzYm9hcmQuaW8iLCJpYXQiOjE2MDM0NDcyNDMsImV4cCI6MTYwNTI0NzI0M30.6Lvy-Qh5No2qIB8JXrrR5rZZkZhzwcCa-Mlx9ubDpvLp1uvCbGfMqC-1w9ysCWWRcPl9eZfEeg8maGY2x4EK7Q

1. **Request Payload**view source
   * 1. {ruleChainId: {entityType: "RULE\_CHAIN", id: "8bffc0f0-1516-11eb-af98-19366df12767"},…}
        1. connections: [{fromIndex: 2, toIndex: 4, type: "Other"}, {fromIndex: 2, toIndex: 1, type: "Post attributes"},…]
        2. firstNodeIndex: 6
        3. nodes: [{id: {entityType: "RULE\_NODE", id: "8c103bb0-1516-11eb-af98-19366df12767"},…},…]
        4. ruleChainConnections: []
        5. ruleChainId: {entityType: "RULE\_CHAIN", id: "8bffc0f0-1516-11eb-af98-19366df12767"}

|  |
| --- |
| Name |

|  |
| --- |
|  |
|  |

点击一个节点的编辑按钮：

**Request URL:**

blob:https://demo.thingsboard.io/c277517a-c84b-4c34-b6e0-97b307ef693a

**Request Method:**

GET

**Status Code:**

200 OK (from disk cache)

**Referrer Policy:**

no-referrer-when-downgrade

1. **Response Headers**view source

**Content-Length:**

66

**Content-Type:**

application/javascript

1. **Request Headers**

**Provisional headers are shown**

**User-Agent:**

Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/70.0.3538.25 Safari/537.36 Core/1.70.3775.400 QQBrowser/10.6.4209.400

### 2点击节点编辑按钮后 -> 点击事件TAB ：

**Request URL:**

https://demo.thingsboard.io/api/events/RULE\_NODE/8c237590-1516-11eb-af98-19366df12767/DEBUG\_RULE\_NODE?pageSize=10&page=0&sortProperty=createdTime&sortOrder=DESC&startTime=1603592788948&endTime=1603679188948&tenantId=8bcd8d60-1516-11eb-af98-19366df12767

**Request Method:**

GET

**Status Code:**

200

**Remote Address:**

104.196.24.70:443

**Referrer Policy:**

no-referrer-when-downgrade

1. **Response Headers**view source

**Cache-Control:**

no-cache, no-store, max-age=0, must-revalidate

**Content-Type:**

application/json

**Date:**

Mon, 26 Oct 2020 02:26:29 GMT

**Expires:**

0

**Pragma:**

no-cache

**Transfer-Encoding:**

chunked

**Vary:**

Origin

**Vary:**

Access-Control-Request-Method

**Vary:**

Access-Control-Request-Headers

**X-Content-Type-Options:**

nosniff

**X-XSS-Protection:**

1; mode=block

1. **Request Headers**view source

**Accept:**

application/json, text/plain, \*/\*

**Accept-Encoding:**

gzip, deflate, br

**Accept-Language:**

zh-CN,zh;q=0.9

**Connection:**

keep-alive

**Content-Type:**

application/json

**Cookie:**

\_ga=GA1.2.2117841865.1598847002; \_gcl\_au=1.1.714773472.1598847030; hubspotutk=13d47436490e1cdd22f4cbd7a2e5a5b9; \_\_hssrc=1; \_\_hstc=50149561.13d47436490e1cdd22f4cbd7a2e5a5b9.1598850303706.1603358197976.1603446975295.23; \_\_cfduid=d6f834a460ba1bb5fcf81162f650062eb1603678568

**Host:**

demo.thingsboard.io

**Referer:**

https://demo.thingsboard.io/ruleChains/8bffc0f0-1516-11eb-af98-19366df12767

**User-Agent:**

Mozilla/5.0 (Windows NT 10.0; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/70.0.3538.25 Safari/537.36 Core/1.70.3775.400 QQBrowser/10.6.4209.400

**X-Authorization:**

Bearer eyJhbGciOiJIUzUxMiJ9.eyJzdWIiOiIxMDMxMjQxNTQyQHFxLmNvbSIsInNjb3BlcyI6WyJURU5BTlRfQURNSU4iXSwidXNlcklkIjoiOGMzZTUwOTAtMTUxNi0xMWViLWFmOTgtMTkzNjZkZjEyNzY3IiwiZmlyc3ROYW1lIjoieGlhb2hlIiwibGFzdE5hbWUiOiJ4aWFvaGUiLCJlbmFibGVkIjp0cnVlLCJwcml2YWN5UG9saWN5QWNjZXB0ZWQiOnRydWUsImlzUHVibGljIjpmYWxzZSwidGVuYW50SWQiOiI4YmNkOGQ2MC0xNTE2LTExZWItYWY5OC0xOTM2NmRmMTI3NjciLCJjdXN0b21lcklkIjoiMTM4MTQwMDAtMWRkMi0xMWIyLTgwODAtODA4MDgwODA4MDgwIiwiaXNzIjoidGhpbmdzYm9hcmQuaW8iLCJpYXQiOjE2MDM0NDcyNDMsImV4cCI6MTYwNTI0NzI0M30.6Lvy-Qh5No2qIB8JXrrR5rZZkZhzwcCa-Mlx9ubDpvLp1uvCbGfMqC-1w9ysCWWRcPl9eZfEeg8maGY2x4EK7Q

1. **Query String Parameters**view sourceview URL encoded

**pageSize:**

10

**page:**

0

**sortProperty:**

createdTime

**sortOrder:**

DESC

**startTime:**

1603592788948

**endTime:**

1603679188948

**tenantId:**

8bcd8d60-1516-11eb-af98-19366df12767

### 3点击编辑节点后-> 点击对号 按钮不会发请求，因为这是临时保存。最终在全部规则引擎的对号这里会全局提交。以此类推，添加节点界面的保存也是假的，还是等到全局提交时候统一处理。

### 4、