

搜索平台从零部署操作文档

搜索分OPS、专柜、电商三套子系统。搜索平台需要基本的引擎环境：SolrCloud和ElasticSearch，其中SolrCloud需要ZooKeeper环境。OPS、专柜搜索子系统需要ES 2.3.4版；电商搜索需要ES 2.2.0版和SolrCloud。本文自ES、OPS搜索、专柜搜索、SolrCloud、电商搜索的顺序进行记录详细部署过程（完全手工部署过程）

本文档以VMware虚拟机集群环境示例记录

黑色背景部分为操作记录，其中`#`表示以root执行命令，`$`表示以非root执行命令，`>`表示执行命令（不限用户身份）

虚拟机环境如下

IP: 192.168.20.101、192.168.20.102、192.168.20.103（文档中以101、102、103代称）

OS: CentOS 6.9

各机安装JDK 1.8，并配置好JAVA_HOME、PATH

关闭并禁用iptables

项目可能需要打包各依赖库，此处101上配置maven环境进行打包。此处打包均假设公司nexus服务不可用，所有依赖由中央Maven仓库或本地仓库提供（maven install）。

101上maven环境如下：

```
# mvn -v
Apache Maven 3.5.0 (ff8f5e7444045639af65f6095c62210b5713f426;
2017-04-04T03:39:06+08:00)
Maven home: /data/maven/apache-maven-3.5.0
Java version: 1.8.0_121, vendor: Oracle Corporation
Java home: /data/jdk/jdk1.8.0_121/jre
Default locale: zh_CN, platform encoding: UTF-8
OS name: "linux", version: "2.6.32-696.el6.x86_64", arch: "amd64",
family: "unix"
安装git版本为2.12.2
```

部署ElasticSearch

创建用户

ElasticSearch不允许在root权限下运行，创建非root用户，示例环境中为search（所有机器）

ulimit 限制

最大线程数 65535 最大文件打开数 65535（所有机器）

使用root用户登录

修改 /etc/security/limits.d/90-nproc.conf 如下

*	soft	nproc	65535
*	hard	nproc	65535
root	soft	nproc	unlimited
root	hard	nproc	unlimited

创建 /etc/security/limits.d/90-nofile.conf 并修改其内容如下

```
*                soft    nofile    65535
*                hard    nofile    65535
root             soft    nofile    unlimited
root             hard    nofile    unlimited
```

使用search用户登录确认 ulimit -n 为65535; ulimit -u 为65535

创建ES部署目录（所有机器）

创建 /data/es/ 目录（需要root权限操作），将其所有权修改为search

```
# mkdir -p /data/es
# chown search:search /data/es
```

在101机器上使用search用户如下操作

下载并解压ElasticSearch，需要两个版本：2.2.0和2.3.4

```
$ curl -L https://download.elasticsearch.org/elasticsearch/
release/org/elasticsearch/distribution/tar/elasticsearch/2.2.0/
elasticsearch-2.2.0.tar.gz -o /data/es/elasticsearch-2.2.0.tar.gz
$ tar xzvf /data/es/elasticsearch-2.2.0.tar.gz -C /data/es
$ curl -L https://download.elastic.co/elasticsearch/release/org/
elasticsearch/distribution/tar/elasticsearch/2.3.4/
elasticsearch-2.3.4.tar.gz -o /data/es/elasticsearch-2.3.4.tar.gz
$ tar xzvf /data/es/elasticsearch-2.3.4.tar.gz -C /data/es
```

为2.2.0版本安装插件

```
$ /data/es/elasticsearch-2.2.0/bin/plugin install delete-by-query
```

可选安装head、kopf插件

修改2.2.0版本配置

```
$ cp /data/es/elasticsearch-2.2.0/config/elasticsearch.yml /data/
es/elasticsearch-2.2.0/config/elasticsearch.yml.origin
```

修改 /data/es/elasticsearch-2.2.0/config/elasticsearch.yml 内容如下

```
cluster.name: es
node.name: node-1
network.host: 192.168.20.101
http.port: 9200
transport.tcp.port: 9300
discovery.zen.ping.unicast.hosts: ["192.168.20.101",
"192.168.20.102", "192.168.20.103"]
discovery.zen.minimum_master_nodes: 2
script.engine.groovy.inline.aggs: on
```

将修改好的2.2.0版本ES复制到102、103

```
$ scp -Crp /data/es/elasticsearch-2.2.0 search@192.168.20.102:/
data/es/
$ scp -Crp /data/es/elasticsearch-2.2.0 search@192.168.20.103:/
data/es/
```

在102、103上分别修改 /data/es/elasticsearch-2.2.0/config/elasticsearch.yml 中：

node.name 为 node-2、node-3

network.host 为 各自IP

在所有机器上启动2.2.0版本ES

```
$ /data/es/elasticsearch-2.2.0/bin/elasticsearch -d -p /data/es/elasticsearch-2.2.0/es.pid
```

回到101，search 用户，为2.3.4版本安装插件

因部分插件只有源码，所以只能本地打包

创建打包目录

```
$ mkdir $HOME/package  
$ cd $HOME/package
```

检出源码

```
$ git clone https://github.com/downliu-xyz/lucene-token-filter-pinyin.git  
$ git clone https://github.com/downliu-xyz/elasticsearch-analysis-token-filter-pinyin.git  
$ git clone https://github.com/downliu-xyz/lucene-char-filter-sbc2dbc.git  
$ git clone https://github.com/downliu-xyz/elasticsearch-analysis-char-filter-sbc2dbc.git  
$ git clone https://github.com/downliu-xyz/lucene-char-filter-chinese-simplifying.git  
$ git clone https://github.com/downliu-xyz/elasticsearch-analysis-char-filter-chinese-simplifying.git  
$ git clone https://github.com/downliu-xyz/dm-segment.git  
$ git clone https://github.com/downliu-xyz/elasticsearch-analysis-dmseg.git
```

检出ES2.3.4版本对应的Tag

```
$ cd elasticsearch-analysis-char-filter-chinese-simplifying/  
$ git checkout 2.3.4.0  
$ cd ..  
$ cd lucene-char-filter-chinese-simplifying/  
$ git checkout v5.5.0.0  
$ cd ..  
$ cd elasticsearch-analysis-char-filter-sbc2dbc/  
$ git checkout 2.3.4.0  
$ cd ..  
$ cd lucene-char-filter-sbc2dbc/  
$ git checkout 5.5.0.2  
$ cd ..  
$ cd elasticsearch-analysis-dmseg/  
$ git checkout 2.3.4.0  
$ cd ..  
$ cd dm-segment/  
$ git checkout 2.3.4.0  
$ cd ..  
$ cd elasticsearch-analysis-token-filter-pinyin/  
$ git checkout 2.3.4.0  
$ cd ..  
$ cd lucene-token-filter-pinyin/
```

```
$ git checkout v5.5.0.0
$ cd ..
```

打包

```
$ cd lucene-char-filter-chinese-simplifying/
$ mvn clean install
$ cd ..
$ cd elasticsearch-analysis-char-filter-chinese-simplifying/
$ mvn clean install
$ cd ..
$ cd lucene-char-filter-sbc2dbc/
$ mvn clean install
$ cd ..
$ cd elasticsearch-analysis-char-filter-sbc2dbc/
$ mvn clean install
$ cd ..
$ cd dm-segment/
$ mvn clean install
$ cd ..
$ cd elasticsearch-analysis-dmseg/
$ mvn clean install
$ cd ..
$ cd lucene-token-filter-pinyin/
$ mvn clean install
$ cd ..
$ cd elasticsearch-analysis-token-filter-pinyin/
$ mvn clean install
$ cd ..
```

安装插件

```
$ /data/es/elasticsearch-2.3.4/bin/plugin install file:$HOME/.m2/
repository/xyz/downwork/npl/elasticsearch-analysis-char-filter-
chinese-simplifying-2.3.4.0/elasticsearch-analysis-char-filter-
chinese-simplifying-2.3.4.0-dist.zip
$ /data/es/elasticsearch-2.3.4/bin/plugin install file:$HOME/.m2/
repository/xyz/downwork/npl/elasticsearch-analysis-char-filter-
sbc2dbc-2.3.4.0/elasticsearch-analysis-char-filter-
sbc2dbc-2.3.4.0-dist.zip
$ /data/es/elasticsearch-2.3.4/bin/plugin install file:$HOME/.m2/
repository/xyz/downwork/npl/elasticsearch-analysis-dmseg-2.3.4.0/
elasticsearch-analysis-dmseg-2.3.4.0-dist.zip
$ /data/es/elasticsearch-2.3.4/bin/plugin install file:$HOME/.m2/
repository/xyz/downwork/npl/elasticsearch-analysis-token-filter-
pinyin-2.3.4.0/elasticsearch-analysis-token-filter-pinyin-2.3.4.0-
dist.zip
$ /data/es/elasticsearch-2.3.4/bin/plugin install delete-by-query
$ /data/es/elasticsearch-2.3.4/bin/plugin install analysis-icu
```

可选安装head、kopf插件

修改2.3.4版本ES配置

```
$ cp /data/es/elasticsearch-2.3.4/config/elasticsearch.yml /data/es/elasticsearch-2.3.4/config/elasticsearch.yml.origin
```

修改 /data/es/elasticsearch-2.3.4/config/elasticsearch.yml 内容如下

```
cluster.name: es1
node.name: node-1
# node.rack: r1
# # bootstrap.mlockall: true
network.host: "192.168.20.101"
http.port: 19200
transport.tcp.port: 19300
discovery.zen.ping.unicast.hosts: ["192.168.20.101",
"192.168.20.102", "192.168.20.103"]
discovery.zen.minimum_master_nodes: 2
gateway.recover_after_nodes: 2
# node.max_local_storage_nodes: 1
# action.destructive_requires_name: true
script.engine.groovy.file.aggs: true
script.engine.groovy.file.mapping: true
script.engine.groovy.file.search: true
script.engine.groovy.file.update: true
script.engine.groovy.file.plugin: true
script.engine.groovy.indexed.aggs: true
script.engine.groovy.indexed.mapping: false
script.engine.groovy.indexed.search: true
script.engine.groovy.indexed.update: false
script.engine.groovy.indexed.plugin: false
script.engine.groovy.inline.aggs: true
script.engine.groovy.inline.mapping: false
script.engine.groovy.inline.search: true
script.engine.groovy.inline.update: true
script.engine.groovy.inline.plugin: false
index:
  analysis:
    filter:
      pinyin:
        type: pinyin
        transformType: 1
        keepOrigin: true
        minTermLength: 2
```

将修改好的2.3.4版本ES复制到102、103

```
$ scp -Crp /data/es/elasticsearch-2.3.4 search@192.168.20.102:/data/es/
$ scp -Crp /data/es/elasticsearch-2.3.4 search@192.168.20.103:/data/es/
```

在102、103上分别修改 /data/es/elasticsearch-2.3.4/config/elasticsearch.yml 中:

node.name 为 node-2、node-3

network.host 为 各自IP

在所有机器上启动2.3.4版本ES

```
$ /data/es/elasticsearch-2.3.4/bin/elasticsearch -d -p /data/es/elasticsearch-2.3.4/es.pid
```

ES部署完成，可退出search用户

注：默认ES启动使用256m堆内存，最高使用1g堆内存。可使用ES_MIN_MEM和ES_MAX_MEM环境变量配置。使用ES_HEAP_SIZE环境变量可同时配置启动内存和最高占用内存。环境变量配置后注意source生效或重新登录生效。

打包依赖库

com.wfj.ea:client:jar:1.1.34-RELEASE

```
> cd ~/package/
> git clone git@10.6.3.213:RD/exception-analysis.git
> cd exception-analysis/
> mvn clean install -DskipTests=true --projects client --also-make
```

com.wfj.netty:servlet-monitor:jar:1.3.4-RELEASE

```
> cd ~/package/
> git clone git@10.6.3.213:RD/WFJ-Servlet-Monitor.git
> cd WFJ-Servlet-Monitor/
> mvn clean install -DskipTests=true
```

com.wfj.search-utils:*:jar:1.0.37-RELEASE

```
> cd ~/package/
> git clone git@10.6.3.213:RD/utils.git
> cd utils/
> mvn clean install -DskipTests=true
```

xyz.dowenwork.npl:dmseg-segment:jar:1.0.0-SNAPSHOT

```
> cd ~/package/
> git clone git@10.6.3.213:liufl/dmseg.git
> cd dmseg/
> mvn clean install -DskipTests=true
```

com.wfj.search.base:segment-service:jar:1.0.2-RELEASE

```
> cd ~/package/
> git clone git@10.6.3.213:RD/segment-service.git
> cd segment-service/
> mvn clean install -DskipTests=true
```

xyz.dowenwork.lucene:scopeExpandTokenFilter:jar:1.1.0-SNAPSHOT

```
> cd ~/package/
> git clone https://github.com/dowenliu-xyz/
scopeExpandTokenFilter.git
> cd scopeExpandTokenFilter/
> mvn clean install -DskipTests=true
```

xyz.dowenwork.lucene:pinyinTokenFilter:jar:1.1.0-SNAPSHOT

```
> cd ~/package/
> git clone https://github.com/dowenliu-xyz/pinyinTokenFilter.git
> cd pinyinTokenFilter/
> mvn clean install -DskipTests=true
```

com.wfj.search.base:traditional2simplified-chinese-char-filter:jar:1.0.2-RELEASE

```
> cd ~/package/
> git clone git@10.6.3.213:RD/wfj-solr-home.git
> mvn clean install -DskipTests=true
```

注：可能提示缺少artifact net.sf.pinyin4j:jar:2.5。使用maven install:install-file导入。jar包可在<https://sourceforge.net/projects/pinyin4j>下载

```
> cd ~/package/
```

```
> curl -L https://sourceforge.net/projects/pinyin4j/files/pinyin4j-2.5.0/pinyin4j-2.5.0/pinyin4j-2.5.0.zip/download -o pinyin4j-2.5.0.zip
> unzip pinyin4j-2.5.0.zip -d pinyin4j-2.5.0
> mvn install:install-file -Dfile=pinyin4j-2.5.0/lib/pinyin4j-2.5.0.jar -DgroupId=net.sf -DartifactId=pinyin4j -Dversion=2.5 -Dpackaging=jar
```

OPS搜索

部署前提

1. 以下依赖库已安装本地仓库或上传到内网私有仓库:
com.wfj.ea:client:jar:1.1.34-RELEASE
com.wfj.netty:servlet-monitor:jar:1.3.4-RELEASE
com.wfj.search-utils:*:jar:1.0.37.RELEASE
2. ZooKeeper地址。此处使用192.168.20.101:2181（自建）。注意，请确保ZooKeeper版本为3.4.6，其他版本可能不兼容！
3. 异常框架Kafka broker地址和logging topic名称，假设为1.2.3.4:9092和exception
4. 监控系统Kafka broker地址和SQL logging topic名称，假设为1.2.3.4:9092和sql-info
5. ES 2.3.4 版本已部署
6. PCM、供应商平台等提供RSA工具jar包生成的key pair中公钥。（不要以任何形式接触其私钥，更不要已方为其提供key pair，防止被诬陷已方伪造数据包）

此OPS搜索部署示例操作环境位于192.168.20.101，root用户

检出OPS搜索代码

```
> cd ~/package/
> git clone git@10.6.3.213:RD/pcm-search.git
> cd ~/package/pcm-search/
```

创建ES索引库

创建pcm-search-data~1库

```
> curl -X PUT http://192.168.20.101:19200/pcm-search-data~1 -d '{
  "settings": {
    "index": {
      "number_of_shards": "3",
      "number_of_replicas": "2"
    }
  }
}'
```

Type mappings

```
> curl -X PUT http://192.168.20.101:19200/pcm-search-data~1/_mapping/brand --data-binary "@es-mapping/pcm-search-data-brand.json"
```

```
> curl -X PUT http://192.168.20.101:19200/pcm-search-data~1/_mapping/channel --data-binary "@es-mapping/pcm-search-data-channel.json"
> curl -X PUT http://192.168.20.101:19200/pcm-search-data~1/_mapping/supplier --data-binary "@es-mapping/pcm-search-data-supplier.json"
> curl -X PUT http://192.168.20.101:19200/pcm-search-data~1/_mapping/item --data-binary "@es-mapping/pcm-search-data-item.json"
```

设置alias

```
> curl -X POST http://192.168.20.101:19200/_aliases -d '{
  "actions": [
    {
      "add": {
        "index": "pcm-search-data~1",
        "alias": "pcm-search-data"
      }
    }
  ]
}'
```

创建pcm-search-operation~1库

```
> curl -XPUT http://192.168.20.101:19200/pcm-search-operation~1 -d '{
  "settings":{
    "index":{
      "number_of_shards":"3",
      "number_of_replicas":"2"
    }
  }
}'
```

Type mapping

```
> curl -X PUT http://192.168.20.101:19200/pcm-search-operation~1/_mapping/item --data-binary "@es-mapping/pcm-search-operation.json"
```

设置alias

```
> curl -X POST http://192.168.20.101:19200/_aliases -d '{
  "actions": [
    {
      "add": {
        "index": "pcm-search-operation~1",
        "alias": "pcm-search-operation"
      }
    }
  ]
}'
```

创建新的部署Profile example

可选：创建git分支


```
> git checkout -b example
> vim pom.xml
```

在project -> profiles元素下加入如下片段

```
<profile>
  <id>example</id>
  <properties>
    <resources.active>0-example</resources.active>
  </properties>
</profile>
```

保存退出vim

创建Profile resource文件夹

index模块

```
> cp -r index/src/main/resources-4-production index/src/main/
resources-0-example
```

search模块

```
> cp -r search/src/main/resources-4-production search/src/main/
resources-0-example
```

profile配置文件

index模块

```
> vim index/src/main/resources-0-example/ea.properties
```

```
ea.sysCode=41
ea.brokerList=1.2.3.4:9092
ea.loggingTopic=exception
```

注：ea.sysCode 异常&监控系统识别码；ea.brokerList 异常框架Kafka broker地址；
ea.loggingTopic 异常框架logint topic名

```
> vim index/src/main/resources-0-example/es.properties
```

```
es.transportAddressList=192.168.20.101:19300,192.168.20.102:1930
0,192.168.20.103:19300
es.clusterName=es1
es.index.operation=pcm-search-operation
es.index.data=pcm-search-data
```

```
> vim index/src/main/resources-0-example/public-key.properties
```

```
PCM=MIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCAQEakg5C3HQQNb9B/
jtGYCCNKcoKmRiRMtHdcdVCghp7CLod+2C5AESg8MXyn6nvA8u6XQJJFaprbgfFT
00ddo2RumskCyaL7jSm0wjKiDhLEjvKqiUvc1qqGH2mS3bytcq6jPoAt8rAKLwiJ
brEbhZNA0PrRZGW5IAgfsV3Ff763QCVLJ0PEI6NvaEjXKjRhWDn2WY+7HxWSG1Tb
4HWe0cnEahAY08qUN/U408Mzn/WDzvHH8uwqnWi1pCz1dP/
g4KhpBSrDqZqS1+7GPv/uMJwmORKZRee6rENdIFuKITSBRJU5ZyeIhA13P/
wmjykBGtfH+AK0iFEnRDfdErGnye7wIDAQAB
```

注：=后的内容为PCM提供的公钥内容

```
> vim index/src/main/resources-0-example/wfj-netty.properties
```

```
system.setting.context-root=/pcm-index
system.setting.context-name=pcm-index
system.setting.context-code=41
system.setting.context-desc='{ "version": "1.0", "name": "pcm-
index", "desc": "pcm-index", "status": "{0}" }'
system.seeting.monitor.url=192.168.20.101:2181
system.seeting.monitor.timeout=5000
```

```
system.seeting.monitor.isDebugEnabled=false
system.setting.interface.name=eth0
system.setting.kafka.bootstrap.servers=1.2.3.4:9092
system.setting.kafka.acks=1
system.setting.kafka.retries=0
system.setting.kafka.batch.size=16384
system.setting.kafka.sql.topic=sql-info
```

注：system.seeting.monitor.url ZooKeeper地址；system.seeting.monitor.isDebugEnabled true时，监控禁用，false启用；system.setting.interface.name 网卡名；
system.setting.kafka.bootstrap.servers 监控系统Kafka地址；system.setting.kafka.sql.topic SQL监控Kafka topic名称。其他项一般不用修改，但不能省。

```
> vim index/src/main/resources-0-example/zookeeper.properties
monitor.zkAddresses=192.168.20.101:2181/search
monitor.register.appName=pcm-index
discovery.basePath=/com/wfj/discovery
operation.versionNoCounterPath=/com/wfj/counter/operation/
versionNoCounter
```

注：monitor.zkAddresses Zookeeper地址，注意后面的chroot要与约定一致。其他项一般不要改动

search模块

```
> vim search/src/main/resources-0-example/ea.properties
ea.sysCode=24
ea.brokerList=1.2.3.4:9092
ea.loggingTopic=exception
> vim search/src/main/resources-0-example/es.properties
es.transportAddressList=192.168.20.101:19300,192.168.20.102:19300,192.168.20.103:19300
es.clusterName=es1
es.index.operation=pcm-search-operation
es.index.data=pcm-search-data
> vim search/src/main/resources-0-example/wfj-netty.properties
system.setting.context-root=/pcm-search
system.setting.context-name=pcm-search
system.setting.context-code=24
system.setting.context-desc='{ "version": "1.0", "name": "pcm-search", "desc": "pcm-search", "status": "{0}" }'
system.seeting.monitor.url=192.168.20.101:2181
system.seeting.monitor.timeout=5000
system.seeting.monitor.isDebugEnabled=false
system.setting.interface.name=eth0
system.setting.kafka.bootstrap.servers=1.2.3.4:9092
system.setting.kafka.acks=1
system.setting.kafka.retries=0
system.setting.kafka.batch.size=16384
system.setting.kafka.sql.topic=sql-info
> vim search/src/main/resources-0-example/zookeeper.properties
monitor.zkAddresses=192.168.20.101:2181/search
monitor.register.appName=pcm-search
discovery.basePath=/com/wfj/discovery
```

打包

```
> mvn clean package -DskipTests=true -Pexample
```

复制war包到部署位置

```
> mkdir -p /data/pcm-search/webapps
```

```
> cp ~/package/pcm-search/index/target/index-1.0.0-SNAPSHOT.war /data/pcm-search/webapps/
```

```
> cp ~/package/pcm-search/search/target/search-1.0.0-SNAPSHOT.war /data/pcm-search/webapps/
```

准备Web容器，以tomcat为例

下载并解压

```
> curl -L http://mirrors.tuna.tsinghua.edu.cn/apache/tomcat/tomcat-8/v8.5.14/bin/apache-tomcat-8.5.14.tar.gz -o /data/pcm-search/apache-tomcat-8.5.14.tar.gz
```

```
> tar xzvf /data/pcm-search/apache-tomcat-8.5.14.tar.gz -C /data/pcm-search/
```

```
> rm -f /data/pcm-search/apache-tomcat-8.5.14.tar.gz
```

修改server.xml修改端口号

```
> vim /data/pcm-search/apache-tomcat-8.5.14/conf/server.xml
```

修改内容略，这里修改为2080、2005、2009等

注1：此示例将会部署index、search模块至同一容器下，均为单实例部署。如需单独实例或集群部署可参考此示例，使用不同端口/机器/单独部署描述文件方式部署。

注2：OPS搜索（pcm-search）的index、search模块运行需要配置环境变量

SERVER_HOSTNAME，其值为当前机器地址，一般为IP，此处为192.168.20.101

```
> echo "export SERVER_HOSTNAME=192.168.20.101" >> ~/.bash_profile
```

source或重新登录生效

创建部署描述文件

```
> mkdir -p /data/pcm-search/apache-tomcat-8.5.14/conf/Catalina/localhost
```

```
> vim /data/pcm-search/apache-tomcat-8.5.14/conf/Catalina/localhost/pcm-index.xml
```

```
<Context docBase="/data/pcm-search/webapps/index-1.0.0-SNAPSHOT.war" path="/pcm-index" reloadable="false">
</Context>
```

```
> vim /data/pcm-search/apache-tomcat-8.5.14/conf/Catalina/localhost/pcm-search.xml
```

```
<Context docBase="/data/pcm-search/webapps/search-1.0.0-SNAPSHOT.war" path="/pcm-search" reloadable="false">
</Context>
```

确认ZooKeeper chroot ZNode存在

```
> /data/zookeeper/zookeeper-3.4.6/bin/zkCli.sh
```

```
ls /
```

如有search，quit退出

否则

```
create /search ""
```

启动并验证部署

```
> /data/pcm-search/apache-tomcat-8.5.14/bin/startup.sh
```

数秒后在本地浏览器中查看：

<http://192.168.20.101:2080/pcm-index/status.json>

<http://192.168.20.101:2080/pcm-search/status.json>

如有正常JSON响应则部署成功

专柜搜索部署

部署前提

1. 以下依赖库已安装本地仓库或上传到内网私有仓库:
com.wfj.ea:client:jar:1.1.34-RELEASE
com.wfj.netty:servlet-monitor:jar:1.3.4-RELEASE
com.wfj.search-utils:*.jar:1.0.37.RELEASE
2. ZooKeeper地址。此处使用192.168.20.101:2181（自建）。注意，请确保ZooKeeper版本为3.4.6，其他版本可能不兼容！
3. 异常框架Kafka broker地址和logging topic名称，假设为1.2.3.4:9092和exception
4. 监控系统Kafka broker地址和SQL logging topic名称，假设为1.2.3.4:9092和sql-info
5. ES 2.3.4 版本已部署
6. MySQL库地址、用户名密码及search库。此处使用192.168.20.101:3306（自建），root用户
7. Redis集群地址及密码 此处使用192.168.20.101:6379,密码为空
8. PCM、供应商平台等提供RSA工具jar包生成的key pair中公钥。（不要以任何形式接触其私钥，更不要已方为其提供key pair，防止被诬陷已方伪造数据包）
9. PCM inner_sdc 地址 假设为1.2.3.4

此专柜搜索部署示例操作环境位于192.168.20.101，root用户

检出专柜搜索代码

```
> cd ~/package/  
> git clone git@10.6.3.213:RD/shoppe-searching.git  
> cd shoppe-searching/
```

MySQL表及数据

如不存在表operator创建之

```
CREATE TABLE `operator` (  
  `sid` bigint(11) NOT NULL AUTO_INCREMENT COMMENT '操作人号',  
  `operator` varchar(50) NOT NULL COMMENT '操作人',  
  `rsa_key` varchar(4096) DEFAULT NULL COMMENT '操作人签名密钥',  
  PRIMARY KEY (`sid`),  
  UNIQUE KEY `unique_operator` (`operator`)  
) ENGINE=InnoDB AUTO_INCREMENT=10 DEFAULT CHARSET=utf8 COMMENT='操作人表';
```

检查如下operator数据是否录入，如不存在，联系相关方生成公钥录入

SYS_INDEX_SERVICE 定时重建索引Operator，不需要公钥

OSP OPS调用Operator，通常由搜索方自己生成密钥对录入，私钥录入OPS部署

PCM PCM调用Operator，由PCM方提供公钥

创建ES索引库

创建shoppe-search-base~1库

```
> curl -X PUT http://192.168.20.101:19200/shoppe-search-base~1 -d  
{  
  "settings": {  
    "index": {  
      "number_of_shards": "3",  
      "number_of_replicas": "2"
```

```
}  
}  
'
```

Type mappings

```
> curl -X PUT http://192.168.20.101:19200/shoppe-search-base~1/_mapping/brand --data-binary @es-mapping/es-shoppe-search-mapping-brand.json  
> curl -X PUT http://192.168.20.101:19200/shoppe-search-base~1/_mapping/category --data-binary @es-mapping/es-shoppe-search-mapping-category.json
```

设置alias

```
> curl -X POST http://192.168.20.101:19200/_aliases -d '{  
  "actions": [  
    {  
      "add": {  
        "index": "shoppe-search-base~1",  
        "alias": "shoppe-search-base"  
      }  
    }  
  ]  
'
```

创建shoppe-search-erp-product~1库

```
> curl -XPUT http://192.168.20.101:19200/shoppe-search-erp-product~1 -d '{  
  "settings": {  
    "index": {  
      "number_of_shards": "3",  
      "number_of_replicas": "2"  
    },  
    "analysis": {  
      "filter": {  
        "synonym": {  
          "type": "synonym",  
          "synonyms": [  
            "nike,耐克",  
            "macwish,麦科威诗,麦科威",  
            "匡威,converse",  
            "上装,上衣",  
            "西服,西装",  
            "衬衫,衬衣",  
            "t-shirt,T恤,tshirt",  
            "连裤袜,裤袜",  
            "泳衣,泳装",  
            "阿迪,阿迪达斯,adidas",  
            "非类,FEELEI-KISS",  
            "行李箱,拉杆箱",  

```

```

        "ascis,asics,亚瑟士",
        "男士,男,男式",
        "胸罩,文胸",
        "女士,女,女式",
        "伯内谛,burnetie",
        "维界,watchjady",
        "爱步,ecco",
        "添柏岚,Timberland"
    ],
    },
    "lowercase_english": {
        "type": "lowercase"
    },
    "stop_english": {
        "type": "stop",
        "stopwords": "_english_"
    },
    "stop_my": {
        "type": "stop",
        "stopwords": [
            "的",
            "和",
            "是",
            "得",
            "不",
            "否",
            "非",
            "啊",
            "呀",
            "呢",
            "吗",
            "款",
            "我"
        ]
    },
    },
    "word_delimiter": {
        "catenate_all": "true",
        "type": "word_delimiter",
        "catenate_numbers": "true",
        "preserve_original": "true"
    },
    },
    "analyzer": {
        "dm_index_pinyin": {
            "filter": [
                "word_delimiter",
                "stop_my",

```

```

        "pinyin",
        "stop_english",
        "lowercase_english"
    ],
    "char_filter": [
        "sbc2dbc",
        "chinese-simplifying"
    ],
    "type": "custom",
    "position_increment_gap": "256",
    "tokenizer": "dm_index"
  },
  "dm_query_pinyin": {
    "filter": [
        "stop_my",
        "stop_english",
        "synonym",
        "lowercase_english"
    ],
    "char_filter": [
        "sbc2dbc",
        "chinese-simplifying"
    ],
    "type": "custom",
    "position_increment_gap": "256",
    "tokenizer": "dm_query"
  }
}
}
}
}
}'

```

Type mappings

```
> curl -XPUT http://192.168.20.101:19200/shoppe-search-erp-product~1/_mapping/erp-product --data-binary @es-mapping/es-shoppe-search-mapping-erp-product.json
```

设置alias

```
> curl -X POST http://192.168.20.101:19200/_aliases -d '
{
  "actions": [
    {
      "add": {
        "index": "shoppe-search-erp-product~1",
        "alias": "shoppe-search-erp-product"
      }
    }
  ]
}'

```

创建shoppe-search-item~1库

```
> curl -XPUT http://192.168.20.101:19200/shoppe-search-item~1 -d '
{
  "settings": {

```

```

    "index": {
      "number_of_shards": "3",
      "number_of_replicas": "2"
    },
    "analysis": {
      "filter": {
        "synonym": {
          "type": "synonym",
          "synonyms": [
            "nike,耐克",
            "macwish,麦科威诗,麦科威",
            "匡威,converse",
            "上装,上衣",
            "西服,西装",
            "衬衫,衬衣",
            "t-shirt,T恤,tshirt",
            "连裤袜,裤袜",
            "泳衣,泳装",
            "阿迪,阿迪达斯,adidas",
            "非类,FEELEI-KISS",
            "行李箱,拉杆箱",
            "ascis,asics,亚瑟士",
            "男士,男,男式",
            "胸罩,文胸",
            "女士,女,女式",
            "伯内谛,burnetie",
            "维界,watchjady",
            "爱步,ecco",
            "添柏岚,Timberland"
          ]
        },
        "lowercase_english": {
          "type": "lowercase"
        },
        "stop_english": {
          "type": "stop",
          "stopwords": "_english_"
        },
        "stop_my": {
          "type": "stop",
          "stopwords": [
            "的",
            "和",
            "是",
            "得",
            "不",

```



```

        "否",
        "非",
        "啊",
        "呀",
        "呢",
        "吗",
        "款",
        "我"
    ],
    },
    "word_delimiter": {
        "catenate_all": "true",
        "type": "word_delimiter",
        "catenate_numbers": "true",
        "preserve_original": "true"
    },
    },
    "analyzer": {
        "dm_index_pinyin": {
            "filter": [
                "word_delimiter",
                "stop_my",
                "pinyin",
                "stop_english",
                "lowercase_english"
            ],
            "char_filter": [
                "sbc2dbc",
                "chinese-simplifying"
            ],
            "type": "custom",
            "position_increment_gap": "256",
            "tokenizer": "dm_index"
        },
        "dm_query_pinyin": {
            "filter": [
                "stop_my",
                "stop_english",
                "synonym",
                "lowercase_english"
            ],
            "char_filter": [
                "sbc2dbc",
                "chinese-simplifying"
            ],
            "type": "custom",
            "position_increment_gap": "256",
            "tokenizer": "dm_query"
        }
    }
}

```

```
}  
}  
'
```

Type mappings

```
> curl -XPUT http://192.168.20.101:19200/shoppe-search-item~1/_mapping/item --data-binary @es-mapping/es-shoppe-search-mapping-item.json
```

设置alias

```
> curl -X POST http://192.168.20.101:19200/_aliases -d '{  
  "actions": [  
    {  
      "add": {  
        "index": "shoppe-search-item~1",  
        "alias": "shoppe-search-item"  
      }  
    }  
  ]  
'
```

创建shoppe-search-operation~1库

```
> curl -XPUT http://192.168.20.101:19200/shoppe-search-operation~1 -d '{  
  "settings": {  
    "index": {  
      "number_of_shards": "3",  
      "number_of_replicas": "2"  
    }  
  }  
'
```

Type mapping

```
> curl -X PUT http://192.168.20.101:19200/shoppe-search-operation~1/_mapping/operation -d '{  
  "properties": {  
    "instanceName": {  
      "index": "not_analyzed",  
      "type": "string"  
    },  
    "appName": {  
      "index": "not_analyzed",  
      "type": "string"  
    },  
    "messageId": {  
      "index": "not_analyzed",  
      "type": "string"  
    },  
    "stamp": {  
      "index": "not_analyzed",  
      "type": "string"  
    },  
  },  
'
```

```

        "sid": {
            "index": "not_analyzed",
            "type": "string"
        },
        "caller": {
            "index": "not_analyzed",
            "type": "string"
        },
        "parameter": {
            "index": "no",
            "type": "string"
        },
        "comment": {
            "index": "no",
            "type": "string"
        },
        "startTime": {
            "format": "yyyy-MM-dd HH:mm:ss.SSS||yyyy-MM-dd HH:mm:ss",
            "type": "date"
        },
        "endTime": {
            "format": "yyyy-MM-dd HH:mm:ss.SSS||yyyy-MM-dd HH:mm:ss",
            "type": "date"
        },
        "operation": {
            "index": "not_analyzed",
            "type": "string"
        },
        "status": {
            "type": "integer"
        },
        "username": {
            "index": "not_analyzed",
            "type": "string"
        }
    }
}
}'

```

设置alias

```

> curl -X POST http://192.168.20.101:19200/_aliases -d '
{
    "actions": [
        {
            "add": {
                "index": "shoppe-search-operation~1",
                "alias": "shoppe-search-operation"
            }
        }
    ]
}'

```

创建新的部署Profile example

可选：创建git分支

```
> git checkout -b example  
> vim pom.xml
```

在project -> profiles元素下加入如下片段

```
<profile>  
  <id>example</id>  
  <properties>  
    <resources.active>0-example</resources.active>  
  </properties>  
</profile>
```

保存退出vim

创建Profile resource文件夹

index模块

```
> cp -r shopee-index/src/main/resources-4-production shopee-index/  
src/main/resources-0-example
```

manage-console模块

```
> cp -r shopee-manage-console/src/main/resources-4-production  
shopee-manage-console/src/main/resources-0-example
```

search模块

```
> cp -r shopee-search/src/main/resources-4-production shopee-  
search/src/main/resources-0-example
```

profile配置文件

index模块

```
> vim shopee-index/src/main/resources-0-example/es.properties  
es.transportAddressList=192.168.20.101:19300,192.168.20.102:1930  
0,192.168.20.103:19300  
es.clusterName=es1  
es.index.operation=shopee-search-operation  
es.index.base=shopee-search-base  
es.index.erpProduct=shopee-search-erp-product  
es.index.item=shopee-search-item
```

```
> vim shopee-index/src/main/resources-0-example/mysql.properties  
mysql.address=jdbc:mysql://192.168.20.101:3306/search?  
characterEncoding=utf-8  
mysql.username=root  
mysql.password=MyPass!new2017  
mysql.initialSize=1  
mysql.minIdle=1  
mysql.maxActive=20
```

```
> vim shopee-index/src/main/resources-0-example/pcm.properties  
pcm.address=http://1.2.3.4/pcm-inner-sdc  
pcm.method.listAllStores=organization/selectShop.htm  
pcm.method.listShopeeItems=search/searchSpByStore.htm  
pcm.method.getSkuInfo=search/selectSearchSku.htm  
pcm.method.getProductInfo=search/selectSearchSpu.htm  
pcm.method.getCategoryInfo=categorycontroller/  
getCategoryInfo.htm
```

```
pcm.method.getStoreBrandInfo=pcmInnerBrandSearch/  
searchBrandByParam.htm  
pcm.method.getItemInfo=search/searchSpByCode.htm  
pcm.method.listItemsByParams=search/searchSpByParam.htm  
pcm.method.listErpProduct=search/  
getErpProductInfoByStoreCodePage.htm
```

注：pcm.address为PCM inner_sdc 部署地址。其他项一般不需要修改

```
> vim shoppe-index/src/main/resources-0-example/redis.properties  
spring.redis.cluster.nodes=192.168.20.101:6379  
spring.redis.cluster.max-redirects=3  
spring.redis.cluster.password=
```

```
> vim shoppe-index/src/main/resources-0-example/wfj-  
netty.properties  
system.setting.context-root=/shoppe-index  
system.setting.context-name=shoppe-index  
system.setting.context-code=27  
system.setting.context-desc='{ "version": "1.0",  
"name": "shoppe-index", "desc": "shoppe-index", "status": "{0}" }'  
system.setting.monitor.url=192.168.20.101:2181  
system.setting.monitor.timeout=5000  
system.setting.monitor.isDebugEnabled=false  
system.setting.interface.name=eth0  
system.setting.kafka.bootstrap.servers=1.2.3.4:9092  
system.setting.kafka.acks=1  
system.setting.kafka.retries=0  
system.setting.kafka.batch.size=16384  
system.setting.kafka.sql.topic=sql-info
```

```
> vim shoppe-index/src/main/resources-0-example/  
zookeeper.properties  
monitor.zkAddresses=192.168.20.101:2181/search  
monitor.register.namespace=/com/wfj/management/monitor/register  
monitor.register.appName=shoppe-index  
coordinator.operation.namespace=/com/wfj/coordinator/operation  
discovery.basePath=/com/wfj/discovery  
operation.versionNoCounterPath=/com/wfj/counter/operation/  
shoppe-index/versionNoCounter
```

manage-console模块

```
> vim shoppe-manage-console/src/main/resources-0-example/  
es.properties  
es.transportAddressList=192.168.20.101:19300,192.168.20.102:1930  
0,192.168.20.103:19300  
es.clusterName=es1  
es.index.operation=shoppe-search-operation
```

```
> vim shoppe-manage-console/src/main/resources-0-example/  
mysql.properties  
mysql.address=jdbc:mysql://192.168.20.101:3306/search?  
characterEncoding=utf-8  
mysql.username=root  
mysql.password=MyPass!new2017  
mysql.initialSize=1  
mysql.minIdle=1
```

```

mysql.maxActive=20
> vim shoppe-manage-console/src/main/resources-0-example/
redis.properties
spring.redis.cluster.nodes=192.168.20.101:6379
spring.redis.cluster.max-redirects=3
spring.redis.cluster.password=
> vim shoppe-manage-console/src/main/resources-0-example/wfj-
netty.properties
system.setting.context-root=/shoppe-manage-console
system.setting.context-name=shoppe-manage-console
system.setting.context-code=28
system.setting.context-desc='{ "version": "1.0",
"name": "shoppe-manage-console", "desc": "shoppe-manage-console",
"status": "{0}" }'
system.setting.monitor.url=192.168.20.101:2181
system.setting.monitor.timeout=5000
system.setting.monitor.isDebugEnabled=false
system.setting.interface.name=eth0
system.setting.kafka.bootstrap.servers=1.2.3.4:9092
system.setting.kafka.acks=1
system.setting.kafka.retries=0
system.setting.kafka.batch.size=16384
system.setting.kafka.sql.topic=sql-info
> vim shoppe-manage-console/src/main/resources-0-example/
zookeeper.properties
monitor.zkAddresses=192.168.20.101:2181/search
discovery.basePath=/com/wfj/discovery
monitor.register.appName=shoppe-manage-console
monitor.register.namespace=/com/wfj/management/monitor/register
operation.versionNoCounterPath=/com/wfj/counter/operation/
shoppe-index/versionNoCounter
> vim shoppe-search/src/main/resources-0-example/es.properties
es.transportAddressList=192.168.20.101:19300,192.168.20.102:1930
0,192.168.20.103:19300
es.clusterName=es1
es.index.item=shoppe-search-item
es.index.base=shoppe-search-base
es.index.erpProduct=shoppe-search-erp-product
> vim shoppe-search/src/main/resources-0-example/mysql.properties
mysql.address=jdbc:mysql://192.168.20.101:3306/search?
characterEncoding=utf-8
mysql.username=root
mysql.password=MyPass@new2017
mysql.initialSize=1
mysql.minIdle=1
mysql.maxActive=20
> vim shoppe-search/src/main/resources-0-example/redis.properties
spring.redis.cluster.nodes=192.168.20.101:6379
spring.redis.cluster.max-redirects=3
spring.redis.cluster.password=

```

```
> vim shoppe-search/src/main/resources-0-example/wfj-
netty.properties
system.setting.context-root=/shoppe-search
system.setting.context-name=shoppe-search
system.setting.context-code=26
system.setting.context-desc='{ "version": "1.0",
"name": "shoppe-search", "desc": "shoppe-search",
"status": "{0}" }'
system.setting.monitor.url=192.168.20.101:2181
system.setting.monitor.timeout=5000
system.setting.monitor.isDebugEnabled=false
system.setting.interface.name=eth0
system.setting.kafka.bootstrap.servers=1.2.3.4:9092
system.setting.kafka.acks=1
system.setting.kafka.retries=0
system.setting.kafka.batch.size=16384
system.setting.kafka.sql.topic=sql-info
> vim shoppe-search/src/main/resources-0-example/
zookeeper.properties
monitor.zkAddresses=192.168.20.101:2181/search
monitor.register.namespace=/com/wfj/management/monitor/register
monitor.register.appName=shoppe-search
discovery.basePath=/com/wfj/discovery
```

打包

```
> mvn clean package -DskipTests=true -Pexample
```

复制war包到部署位置

```
> mkdir -p /data/shoppe-search/webapps
> cp ~/package/shoppe-searching/shoppe-index/target/shoppe-
index-1.0.36-SNAPSHOT.war /data/shoppe-search/webapps/
> cp ~/package/shoppe-searching/shoppe-manage-console/target/
shoppe-manage-console-1.0.36-SNAPSHOT.war /data/shoppe-search/
webapps/
> cp ~/package/shoppe-searching/shoppe-search/target/shoppe-
search-1.0.36-SNAPSHOT.war /data/shoppe-search/webapps/
```

准备Web容器，以tomcat为例

下载并解压

```
> curl -L http://mirrors.tuna.tsinghua.edu.cn/apache/tomcat/
tomcat-8/v8.5.14/bin/apache-tomcat-8.5.14.tar.gz -o /data/shoppe-
search/apache-tomcat-8.5.14.tar.gz
> tar xzvf /data/shoppe-search/apache-tomcat-8.5.14.tar.gz -C /
data/shoppe-search/
> rm -f /data/shoppe-search/apache-tomcat-8.5.14.tar.gz
```

修改server.xml修改端口号

```
> vim /data/shoppe-search/apache-tomcat-8.5.14/conf/server.xml
```

修改内容略，这里修改为3080、3005、3009等

注1：此示例将会部署index、manage-console、search模块至同一容器下，均为单实例部署。如需单独实例或集群部署可参考此示例，使用不同端口/机器/单独部署描述文件方式部署。

注2：专柜搜索（shoppe-search）的index、manage-console、search模块运行需要配置环境变量SERVER_HOSTNAME，其值为当前机器地址，一般为IP，此处为192.168.20.101

```
> echo "export SERVER_HOSTNAME=192.168.20.101" >> ~/.bash_profile
source或重新登录生效
```

创建部署描述文件

```
> mkdir -p /data/shoppe-search/apache-tomcat-8.5.14/conf/Catalina/localhost
> vim /data/shoppe-search/apache-tomcat-8.5.14/conf/Catalina/localhost/shoppe-index.xml
<Context docBase="/data/shoppe-search/webapps/shoppe-index-1.0.36-SNAPSHOT.war" path="/shoppe-index"
reloadable="false">
</Context>
> vim /data/shoppe-search/apache-tomcat-8.5.14/conf/Catalina/localhost/shoppe-manage-console.xml
<Context docBase="/data/shoppe-search/webapps/shoppe-manage-console-1.0.36-SNAPSHOT.war" path="/shoppe-manage-console"
reloadable="false">
</Context>
> vim /data/shoppe-search/apache-tomcat-8.5.14/conf/Catalina/localhost/shoppe-search.xml
<Context docBase="/data/shoppe-search/webapps/shoppe-search-1.0.36-SNAPSHOT.war" path="/shoppe-search"
reloadable="false">
</Context>
```

确认ZooKeeper chroot ZNode存在

```
> /data/zookeeper/zookeeper-3.4.6/bin/zkCli.sh
ls /
如有search, quit退出
否则
create /search ""
```

启动并验证部署

```
> /data/shoppe-search/apache-tomcat-8.5.14/bin/startup.sh
```

数秒后在本地浏览器中查看：

<http://192.168.20.101:3080/shoppe-index/status.json>

<http://192.168.20.101:3080/shoppe-manage-console/status.json>

<http://192.168.20.101:3080/shoppe-search/status.json>

如有正常JSON响应则部署成功

SolrCloud部署

如不使用root用户运行Solr，可能需要配置ulimit，配置方式参考ES部署

部署前提

1. ZooKeeper已部署。此处使用192.168.20.101:2181（此处地址为自建，通常为多项目共用）。注意，请确保ZooKeeper版本为3.4.6，其他版本可能不兼容！
2. 以下依赖库已安装本地仓库或上传到内网私有仓库：
xyz.downwork.npl:dmseg-segment:jar:1.0.0-SNAPSHOT
com.wfj.search.base:segment-service:jar:1.0.2.RELEASE
xyz.downwork.lucene:scopeExpandTokenFilter:jar:1.1.0-SNAPSHOT
xyz.downwork.lucene:pinyinTokenFilter:jar:1.1.0-SNAPSHOT

在所有要部署Solr的机器上如下操作（此例中为所有机器）

创建Solr目录

```
mkdir -p /data/solr/solr_home  
mkdir -p /data/solr/collection_confs
```

在101机器上如下操作

下载并解压Solr（版本5.3.0）

```
curl -L http://archive.apache.org/dist/lucene/solr/5.3.0/  
solr-5.3.0.tgz -o /data/solr/solr-5.3.0.tgz  
tar xzvf /data/solr/solr-5.3.0.tgz -C /data/solr
```

配置solr_home

检出wfj-solr-home项目

```
> cd ~/package  
> git clone git@10.6.3.213:RD/wfj-solr-home.git
```

打包生成solr-home

```
> cd ~/package/wfj-solr-home/  
> mvn clean package -DskipTests
```

注：可能提示缺少artifact net.sf.pinyin4j:jar:2.5。使用maven install:install-file导入。jar包可在<https://sourceforge.net/projects/pinyin4j>下载

```
> cd ~/package/  
> curl -L https://sourceforge.net/projects/pinyin4j/files/  
pinyin4j-2.5.0/pinyin4j-2.5.0/pinyin4j-2.5.0.zip/download -o  
pinyin4j-2.5.0.zip  
> unzip pinyin4j-2.5.0.zip -d pinyin4j-2.5.0  
> mvn install:install-file -Dfile=pinyin4j-2.5.0/lib/  
pinyin4j-2.5.0.jar -DgroupId=net.sf -DartifactId=pinyin4j -  
Dversion=2.5 -Dpackaging=jar
```

部署SOLR_HOME

```
> mkdir -p /data/solr/solr_home  
> cp ~/package/wfj-solr-home/solr-home/target/solr-home/WEB-INF/  
solr.xml /data/solr/solr_home/  
> cp -r ~/package/wfj-solr-home/solr-home/target/solr-home/WEB-  
INF/lib /data/solr/solr_home/
```

创建Solr ZooKeeper chroot ZNode

```
> /data/solr/solr-5.3.0/server/scripts/cloud-scripts/zkcli.sh -  
zkhost 192.168.20.101:2181 -cmd makepath /solr
```

将Solr home、solr分发到192.168.20.102、192.168.20.103

```
> for i in `seq 2 3`; do scp -Crp /data/solr/solr_home  
root@192.168.20.10$i:/data/solr/; scp -Crp /data/solr/solr-5.3.0  
root@192.168.20.10$i:/data/solr/; done
```

注：此处使用的是root用户，注意修改为实际环境使用的用户

在所有的机器上执行启动

```
> /data/solr/solr-5.3.0/bin/solr start -c -p 8983 -z  
192.168.20.101:2181/solr -m 512m -s /data/solr/solr_home
```

SolrCloud部署完成

电商搜索部署

部署前提

1. ZooKeeper已部署。此处使用192.168.20.101:2181（此处地址为自建，通常为多项目共用）。注意，请确保ZooKeeper版本为3.4.6，其他版本可能不兼容！
2. 以下依赖库已安装本地仓库或上传到内网私有仓库：
xyz.downwork.npl:dmseg-segment:jar:1.0.0-SNAPSHOT
com.wfj.search.base:segment-service:jar:1.0.2.RELEASE
xyz.downwork.lucene:scopeExpandTokenFilter:jar:1.1.0-SNAPSHOT
xyz.downwork.lucene:pinyinTokenFilter:jar:1.1.0-SNAPSHOT
com.wfj.ea:client:jar:1.1.34-RELEASE
com.wfj.netty:servlet-monitor:jar:1.3.4-RELEASE
com.wfj.search-utils:*.jar:1.0.37.RELEASE
com.wfj.search.base:traditional2simplified-chinese-char-filter:jar:1.0.2.RELEASE
3. 异常框架Kafka broker地址和logging topic名称，假设为1.2.3.4:9092和exception
4. 监控系统Kafka broker地址和SQL logging topic名称，假设为1.2.3.4:9092和sql-info
5. ES 2.2.2 版本已部署
6. MySQL库地址、用户名密码及search库。此处使用192.168.20.101:3306（自建），root用户
7. Redis集群地址及密码 此处使用192.168.20.101:6379,密码为空
8. PCM、OMS等提供RSA工具jar包生成的key pair中公钥。（不要以任何形式接触其私钥，更不要已方为其提供key pair，防止被诬陷已方伪造数据包）。
9. PCM inner_sdc 地址 假设为1.2.3.4
10. **member-sdk:1.2**已部署到内网仓库或由member提供jar并安装到本地仓库。
11. 会员comment地址。假设为1.2.3.14
12. CMS admin地址。假设为1.2.3.24
13. 购物车地址。假设为1.2.3.34
14. memberSDK参数：domainName、url；memberSDK密钥对。由会员系统提供。这里domainName为search.wangfujing.com；url为http://10.6.3.171/member-core/interface/

MySQL表及数据

如不存在表operator创建之

```
CREATE TABLE `operator` (  
  `sid` bigint(11) NOT NULL AUTO_INCREMENT COMMENT '操作人号',  
  `operator` varchar(50) NOT NULL COMMENT '操作人',  
  `rsa_key` varchar(4096) DEFAULT NULL COMMENT '操作人签名密钥',  
  PRIMARY KEY (`sid`),  
  UNIQUE KEY `unique_operator` (`operator`)  
) ENGINE=InnoDB AUTO_INCREMENT=10 DEFAULT CHARSET=utf8 COMMENT='操作人表';
```

检查如下operator数据是否录入，如不存在，联系相关方生成公钥录入

SYS_INDEX_SERVICE 定时重建索引Operator，不需要公钥
OSP OPS调用Operator，通常由搜索方自己生成密钥对录入，私钥录入OPS部署
PCM PCM调用Operator，由PCM方提供公钥
OMS OMS调用Operator，由OMS方提供公钥
comment 会员评论调用Operator，由会员方提供公钥
online-manage-console online-manage-console模块调用Operator，自主生成Key pair。

检出online-searching代码

```
> cd ~/package/
> git clone git@10.6.3.213:RD/online-searching.git
```

创建ES索引库

创建online-config库

```
> curl -XPUT http://192.168.20.101:9200/online-config -d '{
  "settings":{
    "index":{
      "number_of_shards":"3",
      "number_of_replicas":"2"
    }
  }
}'
```

Type mappings

```
> curl -X PUT http://192.168.20.101:9200/online-config/_mapping/gp
--data-binary "@es-mapping//es-online-config-mapping-gp.json"
```

创建online-search库

```
> curl -XPUT http://192.168.20.101:9200/online-search -d '{
  "settings":{
    "index":{
      "number_of_shards":"3",
      "number_of_replicas":"2"
    }
  }
}'
```

Type mappings

```
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
activity --data-binary @es-mapping//es-online-search-mapping-
activity.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
brand --data-binary @es-mapping//es-online-search-mapping-
brand.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
category --data-binary @es-mapping//es-online-search-mapping-
category.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
clicks --data-binary @es-mapping//es-online-search-mapping-
clicks.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
color --data-binary @es-mapping//es-online-search-mapping-
color.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
comment --data-binary @es-mapping//es-online-search-mapping-
comment.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
item --data-binary @es-mapping//es-online-search-mapping-item.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
item-sales --data-binary @es-mapping//es-online-search-mapping-
item-sales.json
```

```

> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
property --data-binary @es-mapping//es-online-search-mapping-
property.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
property-value --data-binary @es-mapping//es-online-search-
mapping-property-value.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
search-query-record --data-binary @es-mapping//es-online-search-
mapping-search-query-record.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
sku --data-binary @es-mapping//es-online-search-mapping-sku.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
sku-sales --data-binary @es-mapping//es-online-search-mapping-sku-
sales.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
spu --data-binary @es-mapping//es-online-search-mapping-spu.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
spu-sales --data-binary @es-mapping//es-online-search-mapping-spu-
sales.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
standard --data-binary @es-mapping//es-online-search-mapping-
standard.json
> curl -X PUT http://192.168.20.101:9200/online-search/_mapping/
tag --data-binary @es-mapping//es-online-search-mapping-tag.json

```

创建online-operation库

```

> curl -XPUT http://192.168.20.101:9200/online-operation -d '
{
  "settings":{
    "index":{
      "number_of_shards":"3",
      "number_of_replicas":"2"
    }
  }
}'

```

Type mappings

```

> curl -X PUT http://192.168.20.101:9200/online-operation/
_mapping/operation -d '
{
  "properties": {
    "instanceName": {
      "index": "not_analyzed",
      "type": "string"
    },
    "appName": {
      "index": "not_analyzed",
      "type": "string"
    },
    "messageId": {
      "index": "not_analyzed",
      "type": "string"
    }
  }
}
'

```

```

    },
    "stamp": {
      "index": "not_analyzed",
      "type": "string"
    },
    "sid": {
      "index": "not_analyzed",
      "type": "string"
    },
    "caller": {
      "index": "not_analyzed",
      "type": "string"
    },
    "parameter": {
      "index": "no",
      "type": "string"
    },
    "comment": {
      "index": "no",
      "type": "string"
    },
    "startTime": {
      "format": "yyyy-MM-dd HH:mm:ss.SSS||yyyy-MM-dd HH:mm:ss",
      "type": "date"
    },
    "endTime": {
      "format": "yyyy-MM-dd HH:mm:ss.SSS||yyyy-MM-dd HH:mm:ss",
      "type": "date"
    },
    "operation": {
      "index": "not_analyzed",
      "type": "string"
    },
    "status": {
      "type": "integer"
    },
    "username": {
      "index": "not_analyzed",
      "type": "string"
    }
  }
}

```

创建新的部署Profile example

可选：创建git分支

```

> git checkout -b example
> vim pom.xml

```

在project -> profiles元素下加入如下片段

```

<profile>
  <id>example</id>
  <properties>

```

```
        <resources.active>0-example</resources.active>
    </properties>
</profile>
```

保存退出vim

创建Profile resource文件夹

online-solr-collections/online-solr-collection-comment模块

```
> cp -r online-solr-collections/online-solr-collection-comment/
src/main/resources-4-production online-solr-collections/online-
solr-collection-comment/src/main/resources-0-example
```

online-solr-collections/online-solr-collection-item模块

```
> cp -r online-solr-collections/online-solr-collection-item/src/
main/resources-4-production online-solr-collections/online-solr-
collection-item/src/main/resources-0-example
```

online-index模块

```
> cp -r online-index/src/main/resources-4-production online-index/
src/main/resources-0-example
```

online-manage-console模块

```
> cp -r online-manage-console/src/main/resources-4-production
online-manage-console/src/main/resources-0-example
```

online-web/online-web-search模块

```
> cp -r online-web/online-web-search/src/main/resources-4-
production-pre online-web/online-web-search/src/main/resources-0-
example
```

profile配置文件

online-solr-collections/online-solr-collection-comment模块

```
> vim online-solr-collections/online-solr-collection-comment/src/
main/resources-0-example/index.zdp
```

```
zkAddress=192.168.20.101:2181/solr
dictPath=/com/wfj/search/segment/dicts
extDicts=attribute.txt,brand.txt,category.txt
```

```
> vim online-solr-collections/online-solr-collection-comment/src/
main/resources-0-example/query.zdp
```

```
zkAddress=192.168.20.101:2181/solr
dictPath=/com/wfj/search/segment/dicts
extDicts=attribute.txt,brand.txt,category.txt
```

online-solr-collections/online-solr-collection-item模块

```
> vim online-solr-collections/online-solr-collection-item/src/
main/resources-0-example/index.zdp
```

```
zkAddress=192.168.20.101:2181/solr
dictPath=/com/wfj/search/segment/dicts
extDicts=attribute.txt,brand.txt,category.tx
```

```
> vim online-solr-collections/online-solr-collection-item/src/
main/resources-0-example/query.zdp
```

```
zkAddress=192.168.20.101:2181/solr
dictPath=/com/wfj/search/segment/dicts
extDicts=attribute.txt,brand.txt,category.txt
```

online-index模块

```
> vim online-index/src/main/resources-0-example/comment.properties
comment.address=http://1.2.3.14/member-comment
```

```
comment.uri.listCommentsWithPage=/seek/getCommentsAndPics.do  
comment.uri.listCommentsByIds=/seek/getInCommentIds.do
```

注: comment.address 会员评论地址

```
> vim online-index/src/main/resources-0-example/es.properties
```

```
es.index=online-search  
es.transportAddressList=192.168.20.101:9300,192.168.20.102:9300,  
192.168.20.103:9300  
es.clusterName=es  
es.operation.index=online-operation
```

```
> vim online-index/src/main/resources-0-example/mysql.properties
```

```
mysql.address=jdbc:mysql://192.168.20.101:3306/search?  
characterEncoding=utf-8  
mysql.username=root  
mysql.password=MyPass!new2017  
mysql.initialSize=1  
mysql.minIdle=1  
mysql.maxActive=20
```

```
> vim online-index/src/main/resources-0-example/pcm.properties
```

```
pcm.address=http://1.2.3.4/pcm-inner-sdc  
pcm.uri.listItems=searchOnline/searchOnlinePageProInfo.htm  
pcm.uri.listItemsById=searchOnline/  
searchOnlinePageProInfo.htm  
pcm.uri.getSkuInfo=searchOnline/searchOnlineSkuInfoByCode.htm  
pcm.uri.getSpuInfo=searchOnline/selectSpuByCode.htm  
pcm.uri.getBrandInfo=pcmInnerBrandSearch/  
searchOnlineBrandByCode.htm  
pcm.uri.getCategoryInfo=searchOnline/selectCategoryByCode.htm  
pcm.uri.listSkuIdBySpuId=searchOnline/searchSkuCodeBySpuCode.htm  
pcm.uri.listItemIdBySkuId=searchOnline/  
searchItemCodeBySkuCode.htm  
pcm.uri.listBrands=pcmInnerBrandSearch/searchOnlineAllBrand.htm  
pcm.uri.listSubCategories=searchOnline/  
selectCategoryByParent.htm  
pcm.uri.listSpuIdByBrandId=searchOnline/  
searchSpuCodeByBrandCode.htm  
pcm.uri.listSpuIdByCategoryId=searchOnline/  
selectSpuByCategory.htm  
pcm.uri.listItemPriceChanges=pcmprice/selectPriceByTimeFrame.htm  
pcm.uri.listItemOfActivity=searchOnline/selectProByActiveId.htm  
pcm.uri.listClosedActivities=pcmtag/getActiveByEndTimeFrame.htm  
pcm.uri.listActiveActivities=pcmtag/getActiveByTimePoint.htm
```

```
> vim online-index/src/main/resources-0-example/redis.properties
```

```
spring.redis.cluster.nodes=192.168.20.101:6379  
spring.redis.cluster.max-redirects=3  
spring.redis.cluster.password=
```

```
> vim online-index/src/main/resources-0-example/solr.properties
```

```
solr.zkHost=192.168.20.101:2181/solr
```

```
> vim online-index/src/main/resources-0-example/wfj-  
netty.properties
```

```
system.setting.context-root=/online-index  
system.setting.context-name=online-index
```

```

system.setting.context-code=40
system.setting.context-desc='{ "version": "1.0",
"name": "online-index", "desc": "online-index", "status": "{0}" }'
system.setting.monitor.url=192.168.20.101:2181
system.setting.monitor.timeout=5000
system.setting.monitor.isDebugEnabled=false
system.setting.interface.name=eth0
system.setting.kafka.bootstrap.servers=1.2.3.4:9092
system.setting.kafka.acks=1
system.setting.kafka.retries=0
system.setting.kafka.batch.size=16384
system.setting.kafka.sql.topic=sql-info

```

```
> vim online-index/src/main/resources-0-example/
```

```
zookeeper.properties
```

```

monitor.zkAddresses=192.168.20.101:2181/search
monitor.register.namespace=/com/wfj/management/monitor/register
monitor.register.appName=online-index
coordinator.operation.namespace=/com/wfj/coordinator/operation
discovery.basePath=/com/wfj/discovery
operation.versionNoCounterPath=/com/wfj/counter/operation/
online-index/versionNoCounter

```

online-manage-console模块

```
> vim online-manage-console/src/main/resources-0-example/
```

```
cms.properties
```

```

cms.address=http://1.2.3.24/cms-admin
cms.uri.getSiteList=/site/getSiteList.do
cms.uri.getChannelListBySid=/channel/getChannelListBySid.do

```

注：cms.address CMS admin地址

```
> vim online-manage-console/src/main/resources-0-example/
```

```
es.properties
```

```

es.index=online-search
es.transportAddressList=192.168.20.101:9300,192.168.20.102:9300,
192.168.20.103:9300
es.clusterName=es
es.operation.index=online-operation
es.config.index=online-config

```

```
> vim online-manage-console/src/main/resources-0-example/
```

```
mysql.properties
```

```

mysql.address=jdbc:mysql://192.168.20.101:3306/search?
characterEncoding=utf-8
mysql.username=root
mysql.password=MyPass!new2017
mysql.initialSize=1
mysql.minIdle=1
mysql.maxActive=20

```

```
> vim online-manage-console/src/main/resources-0-example/online-
mc-rsaKey
```

```

MIIEvGIBADANBgkqhkiG9w0BAQEFAASCBAKgwggSkAgEAAoIBAQC4B0N2yNdZt+
5oTb8yB+SOBNTmSyCiU61ws33NhJZBimpJzzc9NHKynmoNQn7N50eVvv0eH2s7AV
MU+4bhS2b3R8iQiVIIi0oq7nmPkAnVmRzgRV51uVkzr7Pyew+dsY6YRzsbCET30c
vnTs++E7Jgd0kv8bML6JSjRxzAL/

```


a7sYghDHj6OorQ4p+UJ4mb+R2SKJeJoEINI8ayhqaUVVuWno7/
yNpKueXxohhjeCG9ZgTtu1KPe+2Ksn/zVCnzI1UUX9s//
v9vAGqHWkBJnWHptzSm0lj1VQ2B3uEDMsZDaG4tNQvadvMUiIj6o63665mNuEz9h
jJkytrstPK8p5AgMBAAECggEAd1JEfoxpR8/
Xm0TBKCFnNSCHvwpjJM8aKLMhN+Y5n0bGxc4vLoAksZ+H49z6ucgKhcQt0TNkIz3
ePqwIe1N1GpI72w6Brgjo/
1ZqlBC9tb6qQMZvyxYCJjoEOM8Boa8fDWgW47zoYknf7NWF14J38yXHL1gGQUy3Z
pLfzqe/
GlqznkCfQkBMjl3G6pUhS2zK210dgwdkDgXqKiEjGA6LZQxjS7Ly5bxbkg9ns03M
8rmapIdpr222myMjCWqip9xuocjWrc03mn0K59rYlkwUR8SJAiuFLOdW9n9oaYFU
rf+DUysxr0RjUv0Du7FloZNUaL2NHVEL8q62s0fKhP9PwQKBgQDH+3kJn00mv1ni
xmvEro95pwQVC/
BvN3VcqjcLnXqvYpi98h5eCSKFVoEZqrUFs6BGCzujzCRUFwmzbPHA6wf4XdZbK0
v2ELWXaswbqmeL/h8HMwSEc3QjGMrZT1dsST1xtmB1HmIxJKL/lSr06uQCwq/
UQPULekAEgy0r5nWqJQKBgQC5p2ecWBVsMxuebEYSGltPC00JRXWfMcUwGpRaf
1BToaf00De0MM82ADkKosdf0ZiLebAaGAKdb7WQHeDBls/
87Cz42yKLLe0bnWjQ8NLJZWTTx4aFjNs8xjM2gjVktUXM0Jcs/
Qpt9NfLVI6UmQNqM2Ng4FUxu/KDu97G0sxQKBgCpjN/
V8qJuU5XV2vzLyGQEdEHVxkWXRaHPatE4m8/
Emwd9I6XzfDM0cV8Lb9wCdYTRXfy2pwG1+cJTjW4+bgZX4Nc4er1z5j7PndBnNFa
OLmoIJI0T7v7sMrzo+YfZW08o9cNaCOSfXbyEjkiM1gly/
bUtc9VkfNEKA1VgDQh9tAoGBAKQ7cg29Yh4YBf6Iyl/
31s0aI0bos5tyHuqUh3ittPmsiQzbhAx0yVQwi7Q7qj6wjTE532pRFAQjfx1UULG
UNH3XAZoWL3v2Qt2X2/
TvTexSkB+CLcc6T6yQrHLpC+u0sA70DPaVt6V9qTaL5na8YKYhn1oakWamcXo15j
uJvVcdAoGBAJmMMsfj0vFVn+TjFjhZK9rKkfff+0iCICDgw3wgNTfj7ni4m8LRNMj
EgB0Cs/
SAj1bdE2aB9YSqfDtzP+iiPXS0SnJQ6R7uDL577gZT1Y6iBiXEvEE76BdIpy7EmD
pyuWHaBkh9DpdEeU5iDUJCNfnokktG/JAa1Kb20090qATF+

注：此内容应替换为为目标环境生成的online-manage-console operator RSK key pair 中的公钥内容

```
> vim online-manage-console/src/main/resources-0-example/  
pcm.properties  
pcm.address=http://1.2.3.4/pcm-inner-sdc  
pcm.uri.listBrands=pcmInnerBrandSearch/searchOnlineAllBrand.htm  
pcm.uri.listCategoryByChannel=categorycontroller/  
getCateCodesByChannelCode.htm  
pcm.uri.listSubCategories=searchOnline/  
selectCategoryByParent.htm  
pcm.uri.getCategoryInfo=searchOnline/selectCategoryByCode.htm  
pcm.uri.listChannels=pcmChannelSearch/findListChannel.htm  
> vim online-manage-console/src/main/resources-0-example/  
redis.properties  
spring.redis.cluster.nodes=192.168.20.101:6379  
spring.redis.cluster.max-redirects=3  
spring.redis.cluster.password=  
> vim online-manage-console/src/main/resources-0-example/wfj-  
netty.properties  
system.setting.context-root=/online-manage-console  
system.setting.context-name=online-manage-console  
system.setting.context-code=43
```

```

system.setting.context-desc='{ "version": "1.0",
"name": "online-manage-console", "desc": "online-manage-console",
"status": "{0}" }'
system.setting.monitor.url=192.168.20.101:2181
system.setting.monitor.timeout=5000
system.setting.monitor.isDebugEnabled=false
system.setting.interface.name=eth0
system.setting.kafka.bootstrap.servers=1.2.3.4:9092
system.setting.kafka.acks=1
system.setting.kafka.retries=0
system.setting.kafka.batch.size=16384
system.setting.kafka.sql.topic=sql-info

```

```

> vim online-manage-console/src/main/resources-0-example/
zookeeper.properties

```

```

monitor.zkAddresses=192.168.20.101:2181/search
monitor.register.appName=online-manage-console
monitor.register.namespace=/com/wfj/management/monitor/register
discovery.basePath=/com/wfj/discovery
operation.versionNoCounterPath=/com/wfj/counter/operation/
online-index/versionNoCounter
config.gp.sidGenPath=/com/wfj/counter/config/online-index/
gpSidCounter

```

online-web/online-web-search模块

```

> vim online-web/online-web-search/src/main/resources-0-example/
cart.properties

```

```

cart.getCartNumUrl=http://1.2.3.34/wfj-trade-service/shopCar/
getCartNum/
cart.cartPageUrl=http://cart.wangfujing.com/wfj-trade-web/
cart.htm

```

注: cart.getCartNumUrl 获取购物车商品数接口地址; cart.cartPageUrl 网站访问者打开购物车页面跳转的URL

```

> vim online-web/online-web-search/src/main/resources-0-example/
cookie.properties

```

```

cookie.domain=wangfujing.com

```

注: cookie使用的域名

```

> vim online-web/online-web-search/src/main/resources-0-example/
es.properties

```

```

es.index=online-search
es.transportAddressList=192.168.20.101:9300,192.168.20.102:9300,
192.168.20.103:9300
es.clusterName=es
es.config.index=online-config

```

```

> vim online-web/online-web-search/src/main/resources-0-example/
hosts.properties

```

```

search.host.searchHost=search.wangfujing.com
search.host.brandHost=brand.wangfujing.com
search.host.listHost=list.wangfujing.com

```

注: 关键字搜索、品牌商品列表、分类商品列表域名

```

> vim online-web/online-web-search/src/main/resources-0-example/
member.properties

```

```

member.location=https://member.wangfujing.com

```

```
member.domainName=search.wangfujing.com
member.url=http://10.6.3.171//member-core/interface/
member.login=https://member.wangfujing.com/ssoLogin2.do
member.logout=https://member.wangfujing.com/ssoLogout2.do
member.register=https://member.wangfujing.com/ssoRegister2.do
member.homeUrl=https://member.wangfujing.com/home
concern.itemPageUrl=https://member.wangfujing.com/memberCollect/
get/1?type=0
```

注：依次为会员中心前台地址、MemberSDK domainName、MemberSDK url、会员登录地址前缀、会员退出登录地址前缀、会员注册地址前缀、会员中心地址、订单页面地址。修改后替换member_privateKey.dat、member_publicKey.dat为会员为当前环境提供的密钥对

```
> vim online-web/online-web-search/src/main/resources-0-example/
mysql.properties
```

```
mysql.address=jdbc:mysql://192.168.20.101:3306/search?
characterEncoding=utf-8
mysql.username=root
mysql.password=MyPass!new2017
mysql.initialSize=1
mysql.minIdle=1
mysql.maxActive=20
```

```
> vim online-web/online-web-search/src/main/resources-0-example/
redis.properties
```

```
spring.redis.cluster.nodes=192.168.20.101:6379
spring.redis.cluster.max-redirects=3
spring.redis.cluster.password=
```

```
> vim online-web/online-web-search/src/main/resources-0-example/
search_config.properties
```

```
# 搜索前台缓存超时时间，单位ms
search.config.defaultCacheExpiration=30000
# 电商渠道号，默认0，无需修改
search.config.channel=0
# solr 查询参数 tie，默认0.1 无需修改
search.config.default.tie=0.1
# solr 查询参数 qf
search.config.default.qf=\
colorName^0.5 \
colorAlias^0.5 \
standardName^0.5 \
spuName^5 \
title^5 \
subTitle^5 \
activeKeywords^5 \
activeName^4 \
model^5 \
aliases^5 \
brandName^10 \
brandAliases^9 \
allLevelCategoryNames_{channel}^10 \
tags^5 \
propertyValues_{channel}^1 \
```

```
itemId^1 skuId^1 spuId^1
# solr查询参数 qs
search.config.default.qs=100
# solr查询参数 mm
search.config.default.mm=2<-25% 9<-3
# solr查询参数bq
#search.config.default.bq=activeId:* upTime:[NOW/DAY-1YEAR TO
NOW/DAY]
search.config.default.bq=activeId:*
# 搜索无结果各推荐结果下展示商品数量
search.config.default.simpleRows=4
# 搜索结果每页商品数
search.config.webRows=40
# www 地址
search.config.wwwLocation=http://www.wangfujing.com
# 关键字搜索域名
search.config.searchLocation=http://search.wangfujing.com
# 品牌商品列表域名
search.config.brandLocation=http://brand.wangfujing.com
# 分类商品列表域名
search.config.listLocation=http://list.wangfujing.com
# CSS主机列表
search.config.cssHosts=http://img.wfjimg.com,http://
img1.wfjimg.com,http://img2.wfjimg.com,http://img3.wfjimg.com
# CSS地址模板
search.config.cssLocationTemplate={host}/wfj_ec2/data/s/css
# 图片主机列表
search.config.imageHosts=http://img.wfjimg.com,http://
img1.wfjimg.com,http://img2.wfjimg.com,http://img3.wfjimg.com
# 图片地址模板
search.config.imageLocationTemplate={host}
# JS主机列表
search.config.jsHosts=http://img.wfjimg.com,http://
img1.wfjimg.com,http://img2.wfjimg.com,http://img3.wfjimg.com
# JS模板列表
search.config.jsLocationTemplate={host}/wfj_ec2/data/s/js
search.config.www.jsHosts=http://img.wfjimg.com,http://
img1.wfjimg.com,http://img2.wfjimg.com,http://img3.wfjimg.com
search.config.www.jsLocationTemplate={host}/wfj_ec2/data/site/
www.wangfujing.com
# 分页页码条长度
search.pagination.num_display_entries=5
# CMS tbar html块 内网地址
search.config.htmlTbarUri=http://127.0.0.1:8080/tbar.html
# CMS header html块 内网地址
search.config.htmlHeaderUri=http://127.0.0.1:8080/header.html
# CMS 弹出展示分类 html块 地址
```

```

search.config.htmlNavigationUri=http://www.wangfujing.com/
navgation/getNavStream.jhtml?_site_id_param=2
# 首页跳转地址
search.config.htmlNavigationHeaderHost=www.wangfujing.com
# CMS footer html块 内网地址
search.config.htmlFooterUri=http://127.0.0.1:8080/footer.html
# 商品跳转地址前缀
search.config.itemUrlPrefix=http://www.wangfujing.com/item/
# 商品跳转地址后缀
search.config.itemUrlPostfix=.jhtml
# 猜你喜欢 展示商品数
search.config.mayLikeRows=10
# www 站点ID
search.config.web.default.site=141
# 首页 频道ID
search.config.web.default.channel=234
# 最新上架列表页 上架时间限制 单位: 天
search.config.new.products.date.from=100
> vim online-web/online-web-search/src/main/resources-0-example/
solr.properties
solr.zkHost=192.168.20.101:2181/solr
segment.dictPath=/com/wfj/search/segment/dicts
> vim online-web/online-web-search/src/main/resources-0-example/
wfj-netty.properties
system.setting.context-root=/online-web-search
system.setting.context-name=online-web-search
system.setting.context-code=42
system.setting.context-desc='{ "version": "1.0",
"name": "online-web-search", "desc": "online-web-search",
"status": "{0}" }'
system.seeting.monitor.url=192.168.20.101:2181
system.seeting.monitor.timeout=5000
system.seeting.monitor.isDebugEnabled=false
system.setting.interface.name=eth0
system.setting.kafka.bootstrap.servers=1.2.3.4:9092
system.setting.kafka.acks=1
system.setting.kafka.retries=0
system.setting.kafka.batch.size=16384
system.setting.kafka.sql.topic=sql-info
> vim online-web/online-web-search/src/main/resources-0-example/
zookeeper.properties
monitor.zkAddresses=192.168.20.101:2181/search
monitor.register.namespace=/com/wfj/management/monitor/register
monitor.register.appName=searchService
discovery.basePath=/com/wfj/discovery

```

打包

```
> mvn clean package -DskipTests=true -P example
```

创建Solr Colletions

upconfig online-comment

```
> /data/solr/solr-5.3.0/server/scripts/cloud-scripts/zkcli.sh -  
zkhost 192.168.20.101:2181/solr -cmd upconfig -d ~/package/online-  
searching/online-solr-collections/online-solr-collection-comment/  
target/conf -n online-comment
```

upconfig online-item

```
> /data/solr/solr-5.3.0/server/scripts/cloud-scripts/zkcli.sh -  
zkhost 192.168.20.101:2181/solr -cmd upconfig -d ~/package/online-  
searching/online-solr-collections/online-solr-collection-item/  
target/conf -n online-item
```

upconfig online-suggestion

```
> /data/solr/solr-5.3.0/server/scripts/cloud-scripts/zkcli.sh -  
zkhost 192.168.20.101:2181/solr -cmd upconfig -d ~/package/online-  
searching/online-solr-collections/online-solr-collection-  
suggestion/target/conf -n online-suggestion
```

create collection online-comment

```
> curl -X GET 'http://192.168.20.101:8983/solr/admin/collections?  
action=CREATE&name=online-  
comment&numShards=1&replicationFactor=1&maxShardsPerNode=1&createN  
odeSet=192.168.20.101%3A8983_solr&collection.configName=online-  
comment'
```

create collection online-item

```
> curl -X GET 'http://192.168.20.101:8983/solr/admin/collections?  
action=CREATE&name=online-  
item&numShards=1&replicationFactor=1&maxShardsPerNode=1&createNode  
Set=192.168.20.101%3A8983_solr&collection.configName=online-item'
```

create collection online-suggestion

```
> curl -X GET 'http://192.168.20.101:8983/solr/admin/collections?  
action=CREATE&name=online-  
suggestion&numShards=1&replicationFactor=1&maxShardsPerNode=1&crea  
teNodeSet=192.168.20.101%3A8983_solr&collection.configName=online-  
suggestion'
```

复制war包到部署位置

```
> mkdir -p /data/online-search/webapps  
> cp ~/package/online-searching/online-index/target/online-  
index-1.0.37.RELEASE.war /data/online-search/webapps/  
> cp ~/package/online-searching/online-manage-console/target/  
online-manage-console-1.0.37.RELEASE.war /data/online-search/  
webapps/  
> cp ~/package/online-searching/online-web/online-web-search/  
target/online-web-search-1.0.37.RELEASE.war /data/online-search/  
webapps/
```

准备Web容器，以tomcat为例

下载并解压

```
> curl -L http://mirrors.tuna.tsinghua.edu.cn/apache/tomcat/  
tomcat-8/v8.5.14/bin/apache-tomcat-8.5.14.tar.gz -o /data/online-  
search/apache-tomcat-8.5.14.tar.gz  
> tar xzvf /data/online-search/apache-tomcat-8.5.14.tar.gz -C /  
data/online-search/  
> rm -f /data/online-search/apache-tomcat-8.5.14.tar.gz
```

修改server.xml修改端口号

```
> vim /data/online-search/apache-tomcat-8.5.14/conf/server.xml
```

修改内容略，这里修改为4080、4005、4009等

注：此示例将会部署index、manage-console、search模块至同一容器下，均为单实例部署。如需单独实例或集群部署可参考此示例，使用不同端口/机器/单独部署描述文件方式部署。

创建部署描述文件

```
> mkdir -p /data/online-search/apache-tomcat-8.5.14/conf/Catalina/localhost
```

```
> vim /data/online-search/apache-tomcat-8.5.14/conf/Catalina/localhost/online-index.xml
```

```
<Context docBase="/data/online-search/webapps/online-index-1.0.37.RELEASE.war" path="/online-index"
reloadable="false">
  <Environment name="service/host" value="192.168.20.101"
type="java.lang.String" override="false"/>
  <Environment name="service/port" value="4080"
type="java.lang.Integer" override="false"/>
</Context>
```

```
> vim /data/online-search/apache-tomcat-8.5.14/conf/Catalina/localhost/online-manage-console.xml
```

```
<Context docBase="/data/online-search/webapps/online-manage-console-1.0.37.RELEASE.war" path="/online-manage-console"
reloadable="false">
  <Environment name="service/host" value="192.168.20.101"
type="java.lang.String" override="false"/>
  <Environment name="service/port" value="4080"
type="java.lang.Integer" override="false"/>
</Context>
```

```
> vim /data/online-search/apache-tomcat-8.5.14/conf/Catalina/localhost/ROOT.xml
```

```
<Context docBase="/data/online-search/webapps/online-web-search-1.0.37.RELEASE.war" path="" reloadable="false">
  <Environment name="service/host" value="192.168.20.101"
type="java.lang.String" override="false"/>
  <Environment name="service/port" value="4080"
type="java.lang.Integer" override="false"/>
</Context>
```

清空自带应用

```
> mv /data/online-search/apache-tomcat-8.5.14/webapps /data/online-search/apache-tomcat-8.5.14/webapps.origin
> mkdir /data/online-search/apache-tomcat-8.5.14/webapps
```

确认ZooKeeper chroot ZNode存在

```
> /data/zookeeper/zookeeper-3.4.6/bin/zkCli.sh
```

```
ls /
```

如有search, quit退出

否则

```
create /search ""
```


启动并验证部署

```
> /data/online-search/apache-tomcat-8.5.14/bin/startup.sh
```

数秒后在本地浏览器中查看：

<http://192.168.20.101:4080/online-index/status.json>

<http://192.168.20.101:4080/online-manage-console/status.json>

<http://192.168.20.101:4080/status.json>

如有正常JSON响应则部署成功

注：如日志中出现无法找到MySQL表的情况，查找~/package/online-searching/sql下的sql 文件，使用其中对应的建表语句创建之