

## 服务发现

1. 使用idea spring Initializr创建项目 (testApp)

注意：如果是创建的maven项目记得删除项目中的 `.mvn` 目录。

2. 新建bootstrap.yml配置文件

```
spring:
  application:
    name: testApp
  cloud:
    consul:
      host: localhost
      port: 8500
```

3. 启动项目
4. 查看consul web界面

<http://localhost:8500>

## 健康检查

1. 添加依赖

```
<dependency>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-starter-actuator</artifactId>
</dependency>
```

注意：spring boot 2.0 的更改，2.0 actuator http默认只开启了health和info，全功能开放需要添加配置

```
management:
  endpoints:
    web:
      exposure:
        include: '*'
```

2. 访问
- <http://localhost:8080/actuator>

3. 扩展学习 (info) 中的数据

<https://docs.spring.io/spring-boot/docs/2.0.0.RELEASE/reference/htmlsingle/#howto-build-info>

# 分布式配置

Consul提供了用于存储配置和其他元数据的[键/值存储](#)。Spring Cloud Consul Config是[Config Server](#)和[Client](#)的替代方案。在特殊的“引导”阶段，配置被加载到Spring环境中。默认情况下，配置存储在 `/config` 文件夹中。根据应用程序的名称和模拟Spring Cloud Config顺序解析属性的活动配置文件，创建多个 `PropertySource` 实例。例如，名为“testApp”的应用程序和“dev”配置文件将创建以下属性源：

```
config/testApp,dev/  
config/testApp/  
config/application,dev/  
config/application/
```

## 更改依赖

将 `spring-cloud-starter-consul-discovery` 更改为 `spring-cloud-starter-consul-all`。

`spring-cloud-starter-consul-all`中包含了依赖：

```
<dependencies>  
  <dependency>  
    <groupId>org.springframework.cloud</groupId>  
    <artifactId>spring-cloud-starter-consul-bus</artifactId>  
  </dependency>  
  <dependency>  
    <groupId>org.springframework.cloud</groupId>  
    <artifactId>spring-cloud-starter-consul-config</artifactId>  
  </dependency>  
  <dependency>  
    <groupId>org.springframework.cloud</groupId>  
    <artifactId>spring-cloud-starter-consul-discovery</artifactId>  
  </dependency>  
</dependencies>
```

## 在Consul KEY/VALUE中添加配置

首先：添加consul配置config format为yaml

```
spring:  
  cloud:  
    consul:  
      host: localhost  
      port: 8500  
      config:  
        format: yaml
```

然后：添加key/value配置

key: `config/testApp/data`

```
server:  
  port: 8100
```

key: `config/application/data`

```
management:  
  endpoints:  
    web:  
      exposure:  
        include: '*'
```

## 配置的更新

注意需要开启spring的定时任务

```
@EnableScheduling
```

## 常用配置

### 核心配置

配置项	默认值
spring.cloud.consul.enabled	true
spring.cloud.consul.host	localhost
spring.cloud.consul.port	8500

### 服务发现

配置项	默认值
spring.cloud.consul.discovery.acl-token	
spring.cloud.consul.discovery.catalog-services-watch-delay	10
spring.cloud.consul.discovery.catalog-services-watch-timeout	2
spring.cloud.consul.discovery.datacenters	
spring.cloud.consul.discovery.default-query-tag	
spring.cloud.consul.discovery.default-zone-metadata-name	zone
spring.cloud.consul.discovery.deregister	true
spring.cloud.consul.discovery.enabled	true

spring.cloud.consul.discovery.fail-fast	true
spring.cloud.consul.discovery.health-check-critical-timeout	
spring.cloud.consul.discovery.health-check-interval	10s
spring.cloud.consul.discovery.health-check-path	/actuator/health
spring.cloud.consul.discovery.health-check-timeout	
spring.cloud.consul.discovery.health-check-tls-skip-verify	
spring.cloud.consul.discovery.health-check-url	
spring.cloud.consul.discovery.heartbeat.enabled	false
spring.cloud.consul.discovery.heartbeat.interval-ratio	
spring.cloud.consul.discovery.heartbeat.ttl-unit	s
spring.cloud.consul.discovery.heartbeat.ttl-value	30
spring.cloud.consul.discovery.hostname	
spring.cloud.consul.discovery.instance-group	
spring.cloud.consul.discovery.instance-id	默认为服务名+环境+端口号
spring.cloud.consul.discovery.instance-zone	
spring.cloud.consul.discovery.ip-address	
spring.cloud.consul.discovery.lifecycle.enabled	true
spring.cloud.consul.discovery.management-port	
spring.cloud.consul.discovery.management-suffix	management
spring.cloud.consul.discovery.management-tags	
spring.cloud.consul.discovery.port	
spring.cloud.consul.discovery.prefer-agent-address	false
spring.cloud.consul.discovery.prefer-ip-address	false
spring.cloud.consul.discovery.query-passing	false
spring.cloud.consul.discovery.register	true
spring.cloud.consul.discovery.register-health-check	true
spring.cloud.consul.discovery.scheme	http
spring.cloud.consul.discovery.server-list-query-tags	
spring.cloud.consul.discovery.service-name	
spring.cloud.consul.discovery.tags	

## 服务配置

配置项	默认值
spring.cloud.consul.config.enabled	true
spring.cloud.consul.config.prefix	config
spring.cloud.consul.config.default-context	application
spring.cloud.consul.config.profile-separator	,
spring.cloud.consul.config.data-key	data
spring.cloud.consul.config.format	KEY_VALUE, PROPERTIES, YAML, FILES
spring.cloud.consul.config.name	\${spring.application.name}
spring.cloud.consul.config.acl-token	
spring.cloud.consul.config.fail-fast	false
spring.cloud.consul.config.watch.enabled	true
spring.cloud.consul.config.watch.wait-time	55
spring.cloud.consul.config.watch.delay	1000

## 相关链接

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Gitlab源码:

<https://github.com/spring-cloud/spring-cloud-consul>

中文文档:

<https://springcloud.cc/spring-cloud-consul.html>

英文文档:

<http://cloud.spring.io/spring-cloud-static/spring-cloud-consul/1.3.2.RELEASE/single/spring-cloud-consul.html>