



黑客派

# dubbo 分布式服务日志跟踪 traceId

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原文链接: <https://hacpai.com/article/1542162725000>

来源网站: [黑客派](#)

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<p>上一篇讲了单机服务器日志跟踪系统，那么如果系统中使用了 RPC 服务，那么整个流程的日志何来跟踪呢？ </p>

```
<script async src="https://pagead2.googlesyndication.com/pagead/js/adsbygoogle.js"></script>
```

```
<!-- 黑客派PC帖子内嵌-展示 -->
```

```
<ins class="adsbygoogle" style="display:block" data-ad-client="ca-pub-5357405790190342" data-ad-slot="8316640078" data-ad-format="auto" data-full-width-responsive="true"></ins>
```

```
<script>
    (adsbygoogle = window.adsbygoogle || []).push({});
</script>
```

<p>方法一：在每个 RPC 方法里面传入 traceId，然后使用 MDC 把传入的 traceId 放入到日志中；个方法比较 low，代码侵入性比较高，一不小心就忘记传 traceId 了。 </p>

<p>那有没有其他方法呢？ <br> 以 dubbo 为例，可以给提供者和消费者添加拦截，那想到消费者以在拦截里面把 traceId 传过去，提供者那边接收到之后再吧 traceId 放到 MDC 里面。这里还需要到 dubbo 的 RpcContext，他的作用就是负责消费者和提供者之前传值，我们会把 traceId 通过 RpcContext 的 setAttachment 方法进行传递。这个方法没有侵入性，写业务代码的时候完全可以不关心块，只要写自己的业务就可以了。 </p>

<p>消费者端代码</p>

```
<pre><code class="language-java highlight-chroma"><span class="highlight-nd">@Activat
</span><span class="highlight-o">(</span><span class="highlight-n">group</span><span class="highlight-o">=</span><span class="highlight-n">Constants</span><span class="highlight-o">.</span><span class="highlight-na">CONSUMER</span><span class="highlight-o">)</span>
<span class="highlight-nd">@Slf4j</span>
<span class="highlight-kd">public</span><span class="highlight-kd">class</span><span class="highlight-nc">ApiClientFilter</span><span class="highlight-kd">implements</span><span class="highlight-nc">Filter</span><span class="highlight-o">{</span>
```

```
<span class="highlight-o">}</span></code></pre>
```

```
</code></pre>
```

<p>resources 下面创建 META-INF.dubbo 文件夹，创建文件 com.alibaba.dubbo.rpc.Filter<br>在文件里面写 ApiClientFilter 的路径<br> traceClientFilter=com.xxx.xxx.filter.ApiClientFilter<br>如<br>  </p>

<p>在 application.properties 配置文件里面（项目使用了 SpringBoot） <br> spring.dubbo.consumer.filter = traceClientFilter</p>

<p>如果是 XML 配置那么使用</p>

```
<pre><code class="language-xml highlight-chroma"><span class="highlight-nt">&lt;dubbo
consumer</span><span class="highlight-na">filter=</span><span class="highlight-s">"tr
ceClientFilter"</span><span class="highlight-nt">/&gt;</span>
</code></pre>
```

<p>以上是消费者端的配置</p>

<p>现在来看看提供者这边的配置</p>

```
<pre><code class="language-java highlight-chroma"><span class="highlight-nd">@Activat
</span><span class="highlight-o">(</span><span class="highlight-n">group</span><span class="highlight-o">=</span><span class="highlight-n">Constants</span><span class="highlight-o">.</span><span class="highlight-na">PROVIDER</span><span class="highlight-o">)</span>
<span class="highlight-nd">@Slf4j</span>
```

```

<span class="highlight-kd">public</span> <span class="highlight-kd">class</span> <span class="highlight-nc">TraceServerFilter</span> <span class="highlight-kd">implements</span> <span class="highlight-n">Filter</span> <span class="highlight-o">{</span>
    <span class="highlight-nd">@Override</span>
    <span class="highlight-kd">public</span> <span class="highlight-n">Result</span> <span class="highlight-nc">invoke</span>() <span class="highlight-o">{</span> <span class="highlight-n">Invoker</span> <span class="highlight-o">&lt;?&gt;</span> <span class="highlight-n">invoker</span> <span class="highlight-o">,</span> <span class="highlight-n">Invocation</span> <span class="highlight-n">invocation</span> <span class="highlight-o">}</span> <span class="highlight-kd">throws</span> <span class="highlight-n">RpcException</span> <span class="highlight-o">{</span>
        <span class="highlight-n">String</span> <span class="highlight-n">traceld</span> <span class="highlight-o">=</span> <span class="highlight-n">RpcContext</span> <span class="highlight-o">.</span> <span class="highlight-nc">getContext</span>() <span class="highlight-o">.</span> <span class="highlight-nc">getAttachment</span>() <span class="highlight-o">.</span> <span class="highlight-nc">traceld</span> <span class="highlight-o">);</span>
        <span class="highlight-n">StringUtils</span> <span class="highlight-o">.</span> <span class="highlight-nc">isNotBlank</span>() <span class="highlight-o">.</span> <span class="highlight-nc">traceld</span> <span class="highlight-o">}</span>
        <span class="highlight-n">MDC</span> <span class="highlight-o">.</span> <span class="highlight-nc">put</span>() <span class="highlight-o">.</span> <span class="highlight-nc">traceld</span> <span class="highlight-o">,</span> <span class="highlight-nc">traceld</span> <span class="highlight-o">};</span>
        <span class="highlight-o">}</span>
        <span class="highlight-n">Long</span> <span class="highlight-n">startTime</span> <span class="highlight-o">=</span> <span class="highlight-n">System</span> <span class="highlight-o">.</span> <span class="highlight-nc">currentTimeMillis</span>() <span class="highlight-o">.</span>
        <span class="highlight-n">Result</span> <span class="highlight-n">result</span> <span class="highlight-o">=</span> <span class="highlight-n">Invoker</span> <span class="highlight-o">.</span> <span class="highlight-nc">invoke</span>() <span class="highlight-o">.</span> <span class="highlight-n">Invocation</span> <span class="highlight-o">}</span>
        <span class="highlight-n">Long</span> <span class="highlight-n">takeTime</span>() <span class="highlight-o">=</span> <span class="highlight-n">System</span> <span class="highlight-o">.</span> <span class="highlight-nc">currentTimeMillis</span>() <span class="highlight-o">.</span> <span class="highlight-n">startTime</span> <span class="highlight-o">.</span> <span class="highlight-o">}</span>
        <span class="highlight-n">String</span> <span class="highlight-n">className</span> <span class="highlight-o">=</span> <span class="highlight-n">Invoker</span> <span class="highlight-o">.</span> <span class="highlight-nc">getInterface</span>() <span class="highlight-o">.</span> <span class="highlight-nc">getName</span>() <span class="highlight-o">.</span>
        <span class="highlight-n">log</span> <span class="highlight-o">.</span> <span class="highlight-nc">info</span>("====method:{}.{}(), request:{}, response:{}, time:{} ms====" <span class="highlight-o">.</span> <span class="highlight-o">.</span> <span class="highlight-nc">getInterface</span>() <span class="highlight-o">.</span> <span class="highlight-nc">getName</span>() <span class="highlight-o">.</span>
        <span class="highlight-n">className</span> <span class="highlight-o">,</span> <span class="highlight-n">invocation</span> <span class="highlight-o">.</span> <span class="highlight-nc">getMethodName</span>() <span class="highlight-o">.</span> <span class="highlight-n">JSON</span> <span class="highlight-o">.</span> <span class="highlight-nc">toJSONString</span>() <span class="highlight-o">.</span> <span class="highlight-n">i

```

```
vocation</span><span class="highlight-o">.</span><span class="highlight-na">getArgum
nts</span><span class="highlight-o">()),</span>
    <span class="highlight-n">JSON</span><span class="highlight-o">.</span><span class="highlight-na">toJSONString</span><span class="highlight-o">(</span><span class="highlight-n">result</span><span class="highlight-o">),</span><span class="highlight-na">valueOf</span><span class="highlight-o">(</span><span class="highlight-n">takeTime</span><span class="highlight-o">));</span>
    <span class="highlight-k">return</span><span class="highlight-n">result</span><span class="highlight-o">;</span>
<span class="highlight-o">}</span>
<span class="highlight-o">}</span>
</code></pre>
<script async src="https://pagead2.googlesyndication.com/pagead/js/adsbygoogle.js"></script>
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<p>resources 下面创建 META-INF.dubbo 文件夹，创建文件 com.alibaba.dubbo.rpc.Filter<br>在文件里面写 TraceServerFilter 的路径<br>traceServerFilter=com.xxx.xxx.filter.TraceServerFilter</p>
<p>在 application.properties 配置文件里面（项目使用了 SpringBoot）<br>spring.dubbo.provider.filter = traceServerFilter</p>
<p>到这里整个配置就完成了。</p>
```