**CDN REST接口调用及说明**

最近，有些客户在尝试使用REST接口访问CDN服务期间，遇到了一些问题，导致调用失败。比如，在请求时不清楚Authorization的构建、或者是构建Authorization时仍出现各种异常，我们将对这些问题进行解答。

需要注意的是，目前CDN同样提供了两套REST接口，一套是ASM（经典模式），另外一套是ARM（资源管理器），API接口地址参考：

* ASM CDN：<https://docs.azure.cn/zh-cn/cdn/cdn-api>
* ARM CDN：<https://docs.microsoft.com/en-us/rest/api/cdn/>

如果对于ARM CDN的使用有更多问题，可以联系通过400-085-0319联系开发技术支持团队。本节我们重点介绍以下3个ASM CDN REST接口的使用：

* [创建节点](https://docs.azure.cn/zh-cn/cdn/cdn-api-create-endpoint) (JAVA示例)
* [节点管理-获取节点信息](https://docs.azure.cn/zh-cn/cdn/cdn-api-get-endpoint) (JAVA 示例)
* [缓存刷新](https://docs.azure.cn/zh-cn/cdn/cdn-api-add-purge) (C#示例)

**创建节点调用详解**

* **Endpoint**：

POST

https://restapi.cdn.azure.cn/subscriptions/{subscriptionId}/endpoints?apiVersion=1.0

* **请求参数：**

|  |  |
| --- | --- |
| **参数名称** | **参数值** |
| x-azurecdn-request-date | 必填。符合yyyy-MM-dd hh:mm:ss格式的UTC当前请求时间 |
| Authorization | 必填。授权头请参考[CDN API签名机制](https://docs.azure.cn/zh-cn/cdn/cdn-api-signature) |
| content-type | 必填。application/json |
| Body | 比填。参考API连接中的解释 |

这里我们主要解释Authorization的生成，[CDN API签名机制](https://docs.azure.cn/zh-cn/cdn/cdn-api-signature)中提供了不同语言生成认证头的代码示例，这里我们以Java作为说明，方法定义如下：

public static String calculateAuthorizationHeader(

String requestURL,

String requestTime,

String keyID,

String keyValue,

String httpMethod) throws Exception {

…

}

**requestURL**：

即填充后的Endpoint值，subscriptionId需要设置为实际值，参数值示例：

<https://restapi.cdn.azure.cn/subscriptions/e0fbea86-6cf2-4b2d-81e2-9c59f4f96bcb/endpoints?apiVersion=1.0>

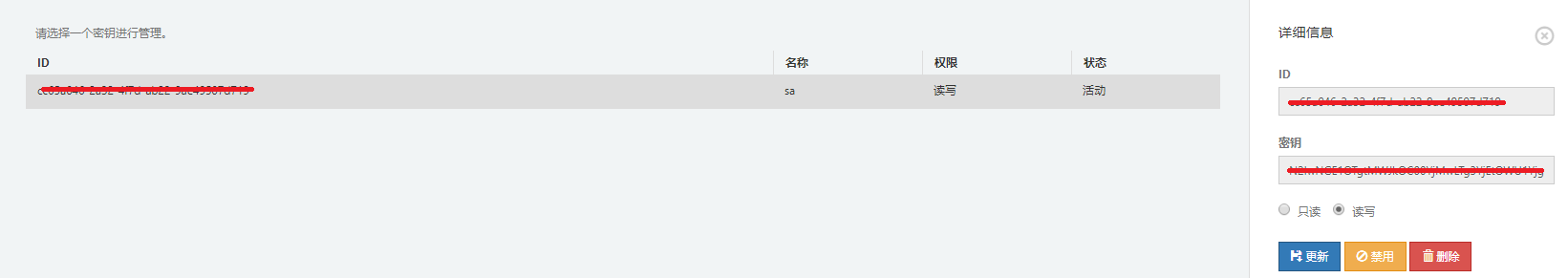
**requestTime：**

该参数的设置与请求中x-azurecdn-request-date的值一致，符合yyyy-MM-dd hh:mm:ss格式的UTC时间即可。参数值示例：

2017-09-01 09:00:00

**keyID与keyValue：**

通过Portal登录CDN节点管理门户，在“安全管理”-“秘钥管理”中获取秘钥，需要注意的是，秘钥的读写权限需要与请求的URL方法权限吻合。比如“Post”或“Put”类的请求，需要“写”权限的秘钥，对于“Get”请求则只需要“读”权限的秘钥即可。



**httpMethod：**

请求方法类型，参数值示例：POST

* **源码地址：**

[**https://github.com/hello-azure/azure-cdn-demo**](https://github.com/hello-azure/azure-cdn-demo)

* **测试用例：**

String requestURL =

"<https://restapi.cdn.azure.cn/subscriptions/e0fbea86-6cf2-4b2d-81e2-9c59f4f96bcb/endpoints?apiVersion=1.0>";

String requestTimestamp = TimeUtil.*getUTCTime*();

String keyID = "cc65a046-2a32-4f7d-ab22-9ae49507d719";

String keyValue = "<cdn-key>";

String httpMethod = "POST";

CdnOperation cOperation = **new** CdnOperation();

String authorization =

cOperation.calculateAuthorizationHeader(

requestURL,

requestTimestamp,

            keyID,

keyValue,

httpMethod);

// 创建节点

String requestBody = Files.*toString*(

**new** File("D:\\workspace\\java\\azure-cdn-

demo\\src\\test\\java\\geo\\azure\\cdn\\request\_body.json",

            Charsets.***UTF\_8***);

String result = cOperation.postRequest(

requestURL,

authorization,

requestBody,

requestTimestamp);

System.***out***.println(result);

2017-7-26 5:37:18

AzureCDN cc65a046-2a32-4f7d-ab22-9ae49507d719:CB82B4555573CCE40FF2BAB1C5AA256C35CFDA5175F4B3E7C5A4905A98E08BF9

{"EndpointId":"8137ecc4-71c4-11e7-8259-0017fa00a611","Settings":{"CustomDomain":"file.azurecloudapi.cn","Host":"file.azurecloudapi.cn","Origin":{"Addresses":["devstoragerm.blob.core.chinacloudapi.cn"]},"ICP":"?ICP?16013159?","ServiceType":"Download","AllowedScheme":0},"Status":{"Enabled":false,"IcpVerifyStatus":"IcpVerifying","LifetimeStatus":"Creating","CNameConfigured":false,"FreeTrialExpired":false,"TimeLastUpdated":"2017-07-26T05:37:47.4718609+00:00"}}

**获取节点信息调用详解**

* **Endpoint：**

GET https://restapi.cdn.azure.cn/subscriptions/{subscriptionId}/endpoints/{endpointId}?apiVersion=1.0

* **请求参数：**

|  |  |
| --- | --- |
| **参数名称** | **参数值** |
| x-azurecdn-request-date | 必填。符合yyyy-MM-dd hh:mm:ss格式的UTC当前请求时间 |
| Authorization | 必填。授权头请参考[CDN API签名机制](https://docs.azure.cn/zh-cn/cdn/cdn-api-signature) |

* **源码地址：**

[**https://github.com/hello-azure/azure-cdn-demo**](https://github.com/hello-azure/azure-cdn-demo)

* **测试用例：**

String requestURL =

"https://restapi.cdn.azure.cn/subscriptions/e0fbea86-6cf2-4b2d-81e2-9c59f4f96bcb/endpoints/8137ecc4-71c4-11e7-8259-0017fa00a611?apiVersion=1.0";

String requestTimestamp = TimeUtil.*getUTCTime*();

String keyID = "cc65a046-2a32-4f7d-ab22-9ae49507d719";

String keyValue = "<cdn-key>";

String httpMethod = "GET";

CdnOperation cOperation = **new** CdnOperation();

String authorization =

cOperation.calculateAuthorizationHeader(

requestURL,

requestTimestamp,

            keyID,

keyValue,

httpMethod);

String result = cOperation.getRequest(

requestURL,

authorization,

requestTimestamp);

System.***out***.println(result);

AzureCDN cc65a046-2a32-4f7d-ab22-9ae49507d719:AE889EA579556251F5CA57B19361BE57C22550F0D8E4941E50819CB9F0296967

{"EndpointId":"8137ecc4-71c4-11e7-8259-0017fa00a611","Settings":{"CustomDomain":"file.azurecloudapi.cn","Host":"file.azurecloudapi.cn","Origin":{"Addresses":["devstoragerm.blob.core.chinacloudapi.cn"],"SchemePort":{"Scheme":"Http","HttpPort":80}},"ICP":"?ICP?16013159?","ServiceType":"Download","AllowedScheme":"Http","CName":"file.azurecloudapi.cn.mschcdn.com"},"Status":{"Enabled":true,"IcpVerifyStatus":"IcpVerified","LifetimeStatus":"Normal","CNameConfigured":false,"FreeTrialExpired":false,"TimeLastUpdated":"2017-07-26T05:46:00+00:00"}}

**刷新缓存调用详解**

* **Endpoint：**

POST

[https://restapi.cdn.azure.cn/subscriptions/{subscriptionId}/endpoints/{endpointId}/purges?apiVersion=1.0](https://restapi.cdn.azure.cn/subscriptions/%7bsubscriptionId%7d/endpoints/%7bendpointId%7d/purges?apiVersion=1.0)

**请求参数：**

|  |  |
| --- | --- |
| **参数名称** | **参数值** |
| x-azurecdn-request-date | 必填。符合yyyy-MM-dd hh:mm:ss格式的UTC当前请求时间 |
| Authorization | 必填。授权头请参考[CDN API签名机制](https://docs.azure.cn/zh-cn/cdn/cdn-api-signature) |
| content-type | application/json |

* **源码地址：**

[**https://github.com/hello-azure/azure-cdn-demo**](https://github.com/hello-azure/azure-cdn-demo)

* **测试用例：**

static void Main(string[] args)

{

// get

var requestUrl =

string.Format("https://restapi.cdn.azure.cn/subscriptions/{0}/endpoints?apiVersion=1.0", "e0fbea86-6cf2-4b2d-81e2-9c59f4f96bcb");

var requestTime = DateTime.Now.AddHours(-8)

.ToString("yyyy-MM-dd hh:mm:ss");

var keyID = "cc65a046-2a32-4f7d-ab22-9ae49507d719";

var keySecret = "秘钥";

var requestAuth = CalculateAuthorizationHeader(

requestUrl, requestTime, keyID, keySecret, "GET");

Console.WriteLine(requestTime);

Console.WriteLine(requestAuth);

get(requestUrl, requestAuth, requestTime);

requestUrl = string.Format("https://restapi.cdn.azure.cn/subscriptions/{0}/endpoints/{1}/purges?apiVersion=1.0", "e0fbea86-6cf2-4b2d-81e2-9c59f4f96bcb", "4f7e4141-83d0-11e7-8259-0017fa00a611");

requestTime = DateTime.Now.AddHours(-8)

.ToString("yyyy-MM-dd hh:mm:ss");

keyID = "cc65a046-2a32-4f7d-ab22-9ae49507d719";

keySecret = "秘钥";

requestAuth = CalculateAuthorizationHeader(

requestUrl, requestTime, keyID, keySecret, "POST");

var requestBody = "{\"Files\": [\"http://azurecloudapi.cn/wp-content/uploads/2016/09/logo2-1.png\"],\"Directories\": [ \"http://azurecloudapi.cn/wp-content/uploads/2016/09/\"]}";

post(requestUrl, requestAuth, requestTime,requestBody);

Console.ReadLine();

}

static void get(string requestUrl, string requestAuth, string requestTime)

{

Uri uri = new Uri(requestUrl);

HttpWebRequest request = (HttpWebRequest)WebRequest.Create(uri);

request.Method = "GET";

request.Headers["x-azurecdn-request-date"] = requestTime;

request.Headers["Authorization"] = requestAuth;

try

{

HttpWebResponse response = (HttpWebResponse)request.GetResponse();

using (StreamReader reader = new

StreamReader(response.GetResponseStream()))

{

var result = reader.ReadToEnd();

Console.WriteLine(result);

}

response.Close();

}

catch (WebException ex)

{

Console.WriteLine(ex);

}

}

static async void post(string requestUrl, string requestAuth, string requestTime, string requestBody)

{

Uri uri = new Uri(requestUrl);

HttpWebRequest request = (HttpWebRequest)WebRequest.Create(uri);

request.Method = "POST";

request.Headers["x-azurecdn-request-date"] = requestTime;

request.Headers["Authorization"] = requestAuth;

byte[] byteArray = Encoding.UTF8.GetBytes(requestBody);

request.ContentLength = byteArray.Length;

Stream newStream = request.GetRequestStream();

newStream.Write(byteArray, 0, byteArray.Length);

newStream.Close();

try

{

HttpWebResponse response = (HttpWebResponse)request.GetResponse();

using (StreamReader reader = new StreamReader(response.GetResponseStream()))

{

var result = reader.ReadToEnd();

Console.WriteLine(result);

}

response.Close();

}

catch (WebException ex)

{

Console.WriteLine(ex);

}

}