**题目：**c#获取VM监控数据

**问题：**c#获取VM监控数据

描述：很多用户想通过本地程序获取VM的监控数据并保存文件，如果通过接口获取数据那么只能获取30天内的，更长时间是无法获取的。

### 前提

订阅文件下载：<https://manage.windowsazure.cn/publishsettings/>

安装VS2015

**解决方法：**

引用如下命名空间

using System;

using System.Linq;

using System.Threading.Tasks;

using System.Configuration;

using Microsoft.WindowsAzure.Storage;

using Microsoft.WindowsAzure.Storage.Blob;

using System.Net;

using System.Collections.Generic;

using System.Text;

using System.Xml.Linq;

using System.Security.Cryptography.X509Certificates;

using Microsoft.WindowsAzure.Management;

using Microsoft.WindowsAzure.Management.Compute;

using Microsoft.WindowsAzure.Management.Compute.Models;

using Microsoft.WindowsAzure.Management.Monitoring.Metrics;

using Microsoft.WindowsAzure.Management.Monitoring.Utilities;

using Microsoft.WindowsAzure.Management.Scheduler;

using Microsoft.Azure;

using Microsoft.WindowsAzure;

using Microsoft.WindowsAzure.Management.Monitoring.Metrics.Models;

using System.IO;

//需要将如下代码改为自己的真实信息

string subscriptionId = "";

string cloudServiceName = "";

string deploymentName = "";

string vmName = "";

//加载下载的订阅文件

XElement xElement = XElement.Load(System.AppDomain.CurrentDomain.BaseDirectory + "订阅文件");

var subscriptionElements = xElement.Descendants("Subscription");

var base64cer = subscriptionElements.Where(e => e.Attribute("Id").Value.ToString() == subscriptionId).FirstOrDefault().Attribute("ManagementCertificate").Value.ToString();

X509Certificate2 certificateStore = new X509Certificate2(Convert.FromBase64String(base64cer));

Microsoft.WindowsAzure.SubscriptionCloudCredentials credential = new Microsoft.WindowsAzure.CertificateCloudCredentials(subscriptionId, certificateStore);

Uri baseUri = new Uri("https://management.core.chinacloudapi.cn/");

MetricsClient metricsClient = new MetricsClient(credential, baseUri);

string cloudServiceResourceId = ResourceIdBuilder.BuildVirtualMachineResourceId(cloudServiceName, deploymentName, vmName);

// Metric names

List<string> metricNames = new List<string>() { "Network Out", "Disk Read Bytes/sec", "Disk Write Bytes/sec", "Percentage CPU", "Network In" };

TimeSpan timeGrain = TimeSpan.FromHours(1);

DateTime timeBegin = DateTime.Now.AddDays(-30);

DateTime time2Start = DateTime.Parse(timeBegin.ToString("yyyy-MM-dd") + " 00:00:00");

DateTime time2Stop = DateTime.Parse(timeBegin.ToString("yyyy-MM-dd") + " 23:59:59");

int rate = (DateTime.Now - time2Start).Days / 13 + 1;

int addition = (DateTime.Now - time2Start).Days % 13;

int num1, num2;

string json = null;

for (int i = 0; i < rate; i++)

{

num1 = i \* 13;

if (i == rate - 1)

{

num2 = i \* 13 + addition;

}

else

{

num2 = (i + 1) \* 13;

}

DateTime startTime = time2Start.AddDays(num1);

DateTime endTime = time2Stop.AddDays(num2);

MetricValueListResponse response = metricsClient.MetricValues.List(cloudServiceResourceId, metricNames, String.Empty, timeGrain, startTime, endTime);

foreach (MetricValueSet value in response.MetricValueSetCollection.Value)

{

String valueName = value.Name;

Console.WriteLine("------------------------Metric: {0}------------------------", valueName);

foreach (MetricValue metricValue in value.MetricValues)

{

json += value.Name + "," + metricValue.Timestamp.AddHours(8) + "," + metricValue.Average + "," + metricValue.Count + "," + metricValue.Maximum + "," + metricValue.Minimum + "," + metricValue.Total + "\r\n";

}

}

}

FileStream aFile = new FileStream(AppDomain.CurrentDomain.BaseDirectory + ConfigurationManager.AppSettings["VmTracePath"] + cloudServiceName + "\_" + deploymentName + "\_" + vmName + "\_" + timeBegin.ToString("yyyy-MM-dd") + "~" + DateTime.Now.ToString("yyyy-MM-dd") + ".CSV", FileMode.OpenOrCreate);

StreamWriter sw = new StreamWriter(aFile, Encoding.GetEncoding("GB2312"));

sw.Write(json);

### sw.Close();

**结果**

执行程序，在Debug文件夹下会看到获取监控信息所写入的文件，名称如下：

cid:image007.png@01D24028.298F91B0

