



对象存储 OSS 用户实践

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⚠ 危险	该类警示信息将导致系统重大变更甚至故 障,或者导致人身伤害等结果。	⚠ 危险 重置操作将丢失用户配置数据。
⚠ 警告	该类警示信息可能会导致系统重大变更甚 至故障,或者导致人身伤害等结果。	警告 重启操作将导致业务中断,恢复业务 时间约十分钟。
〔〕) 注意	用于警示信息、补充说明等,是用户必须 了解的内容。	大意 权重设置为0,该服务器不会再接受新 请求。
⑦ 说明	用于补充说明、最佳实践、窍门等,不是 用户必须了解的内容。	⑦ 说明您也可以通过按Ctrl+A选中全部文件。
>	多级菜单递进。	单击设置> 网络> 设置网络类型。
粗体	表示按键、菜单、页面名称等UI元素。	在 结果确认 页面 <i>,</i> 单击 确定 。
Courier字体	命令或代码。	执行 cd /d C:/window 命令,进入 Windows系统文件夹。
斜体	表示参数、变量。	bae log listinstanceid
[] 或者 [alb]	表示可选项,至多选择一个。	ipconfig [-all -t]
{} 或者 {a b}	表示必选项,至多选择一个。	switch {act ive st and}

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1.OSS+ROS创建Sharepoint 2016

本文介绍如何通过阿里云的服务快速创建Sharepoint 2016。

⑦ 说明 本文示例由阿里云用户 肖伊 提供, 仅供参考。

背景信息

● 对象存储OSS

海量、安全、低成本、高可靠的云存储服务,提供99.9999999999%(12个9)的数据可靠性。使用 RESTful API,可以在互联网任何位置存储和访问。容量和处理能力可弹性扩展,并能提供多种可选择的存储类型,全面优化存储成本。

● 资源编排ROS

资源编排(Resource Orchestration)是一种简单易用的云计算资源管理及自动化运维服务。用户通过模 板描述多个云计算资源的依赖关系及配置等,并自动完成所有资源的创建和配置,从而达到自动化部署及 运维等目的。编排模板同时也是一种标准化的资源和应用交付方式,可以随时编辑修改,使基础设施即代 码(Infrastructure as Code)成为可能。

• PowerShell

PowerShell是Windows下的一种命令行外壳程序及环境脚本,用户可以编写.ps1脚本或利用.Net Framework进行脚本的编写和运行,与Linux下的.sh脚本类似。

• Registry

Windows注册表,本示例中用到了以下的KEY:

HKLM\SOFTWARE\Microsoft\Windows NT\CurrentVersion\Winlogon:

AutoAdminLogon: 是否开启管理员自动登录, 1: True 0: False

DefaultUserName: 自动登录管理员的账号

Default Password: 自动登录管理员的密码

在整个最佳实践当中,我们会组合使用阿里云的下列服务以完成整体工作:

- 阿里云OSS:我们将使用该服务提供的存储能力,在通过本地网络下载SharePoint的安装文件后,在 OSS上创建存储空间并保存安装文件,再以内网的形式提供给需要安装SharePoint的机器。
- 阿里云资源编排ROS:我们将用到下文提到的ROS 模板,通过ROS自动实现从ECS创建到Sharepoint安装的整个过程。您只需在使用ROS 进行自动化安装前输入必要的参数即可。

配置步骤

1. 新建 Bucket

首先,在 OSS 中创建新的 Bucket,其中 Bucket ACL 建议设置为私有。





Bucket 创建完成后,请从此处下载 img 文件,并存放至 OSS 中。

用户实践·OSS+ROS创建Sharepoint 2

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(-)	管理控制台 产品	品与服务 ▼	搜索	Q 阜 17 费用 Ⅰ	「单 备案 企」	Ł 支持 简体中文	0
	ш	对象存储	sharepointbucket	类型 标准存储 区域	华南1 创建时间 2	2018-02-08 15:27 删除	Bucket
•	云计算基础服务	概览	概览 文件管理 基础设置 域名管理	图片处理 事件通知 函数计:	算		
	云服务器 ECS	存储空间 🛛 🕂 🔊 🖪					
¥	云数据库 RDS 版	٩					
4	负载均衡	 naserviceoss 	上传文件 新建目录 删除 设置 HTTP 头 碎片管理 刷算	Ť		输入文件名前缀匹配	9
ø	对象存储 OSS	resourcenaservice	文件名 (Object Name)	文件大小	存储类型	更新时间	操作
×	CDN	sharepointbucket	¬				
۵	专有网络 VPC					2018-02-23	
ය	访问控制		**	151.468KB	标准存储	17:11	设置
ŵ	云数据库 Redis 版		SQLEXPR_x64_ENU.exe	132.329MB	标准存储	2018-02-08 15:56	设置
٢	企业级分布式应用服…			600.156MB	标准存储	2018-02-23 18:30	设置
s‡s	高速通道			0.7551/0	1=111-4-114	2018-02-23	
сэ	云数据库 HybridDB …			0.755KB	你准仔储	18:25	设置
*	云数据库HybridDB f…		officeserver.img	3.006GB	标准存储	2018-02-23 17:11	设置
jît,	云数据库 HBase 版		L				_
•	大数据(数加)						
•	安全(云盾)						
•	域名与网站(万网)						
•	云市场	① 上传任务					

这里建议将 img 文件的读写权限设置成公共读。

预览		×	设置读写权刚	Ę				\times
			读写权限	继承 Bucket 公共读:对文件写报	私有	<mark>公共读</mark> 5: 可以对文件进行匿	公共读写 名读。	
<	目前仅支持图片文件的预览。	>					确定	取消
文件名	officeserver.img							
URL	http://second.oss-cn-shenzh	en.aliyuncs.com/o						
	复制文件 URL 复制文件路径							
类型	application/octet-stream	设置 HTTP 头						
文件 ACL	公共读 ①	设置读写权限						

该步骤完成后,我们可以获得一个阿里云提供的 URL 以访问该文件。

2. 通过ROS新建资源栈

ROS 以模板的形式申明资源(如 ECS 和 VPC)并配置资源之间的关系(如 ECS 属于哪个VPC),并支持在 ECS 部署结束后自动执行用户脚本。模板中定义的所有资源都属于一个栈,用户通过资源栈管理自己的云资源。

i. 进入ROS管理控制台, 单击 资源栈管理 > 新建资源栈, 开始创建。

			200 X00 4-D To Luke	AN IL A		Artha Ar		and have a second second	le a churcha. Marala daudir a charána ide	607.206.307.202.4.0	CI DUNE
-	云计算基础服务	资源编排 ROS	資源代列表	华北1 华	北2 华北3	华北 5 华	东1 华东2 华南1	香港 业太东3	L1(东京) 业太东南1(新加坡)	新建黄源核 ▼	いり新
	云服务器 ECS	资源栈管理		业太乐南2((悉尼) 业太乐 (まん)	:用3 (古陸坡)	业太乐南 5 (雅加达)	业太南部1(孟头)	美国东部1(弗吉尼亚)		
Ŧ	云数据库 RDS 版	资源类型		美国四部1((住谷) 甲朱赤	部1(地种) 1	欧洲中部1(法三兄福)				
4	负载均衡	模板样例	欢迎加入ROS	交流群进行讨论	论和反馈,钉钉	群号: 117834	95。旺旺群号:149600	06086。			
0	对象存储 OSS	我的模板	资源栈名称 \$	请输入资源相	线名进行查询		搜索				
×	CDN	▼ 关键帮助	名称 状态	(所有) 👻	超时 (分钟)	失败回滚	状态描述		创建时间		操作
۵	专有网络 VPC	可视化编辑器	A2 🌒 t	刘建完成	60	是	Stack CREATE co	ompleted successful	ly 2018-03-06 00:	55:42 管理	删除 更多▼
ය	访问控制	开始向导									
÷	云数据库 Redis 版	ECS实例相关信息	A1 🔴 f	创建完成	60	是	Stack CREATE co	ompleted successful	ly 2018-03-06 00:	02:55	──删除 更多▼
۲	企业级分布式应用服	RDS实例规格							共有2条, 每页	显示: 10条 🤘 🧹	
٩	高速通道	帮助手册									
co	云数据库 HybridDB f	常见问题									
*	云数据库HybridDB fo										
лt.	云数据库 HBase 版										
•	大数据(数加)										

ii. 在输入脚本页面当中,用户需要选择将脚本中所创建的机器部署到哪一个Region。

		资源编排 ROS	创建Stack 主返	回Stack列表					
•	云计算基础服务								
≣	云服务器 ECS	资源栈管理							
¥	云数据库 RDS 版	资源类型		直接输入		启动栈	\rightarrow	创建成功	
4	负载均衡	模板样例	・所在region	: 华南 1			\$		
0	对象存储 OSS	我的模板		您所创建的计	资源将会隶属于这个region				
×	CDN	▼ 关键帮助	模版源	直接输入			\$		
\$	专有网络 VPC	可视化编辑器	•模板数据 🛛	: 使用可视	化编辑器编辑模板				
ය	访问控制	开始向导		1					
۲	云数据库 Redis 版	ECS实例相关信息							
\$	企业级分布式应用服	RDS实例规格							
\diamond	高速通道	帮助手册							
co	云数据库 HybridDB f	常见问题							咨询
-\$X	云数据库HybridDB fo								列
JĪL.	云数据库 HBase 版								3
•	大数据(数加)								
•	安全(云盾)							下一步	取消
•	域名与网站(万网)								



```
{
    "ROSTemplateFormatVersion": "2015-09-01",
    "Description": "One simple ECS instance and a security group. The user only needs to specify the i
    mage ID.",
    "Parameters": {
        "NewDomainNetbiosName": {
            "Type": "String",
            "Default": "ADXING"
        },
        "InternetMaxBandwidthOut": {
        }
}
```

对象存储 OSS

```
internetmanbanamatiout . (
 "Type": "String",
 "Description": "Set internet output bandwidth of instance. Unit is Mbps(Mega bit per second). Ra
nge is [0,200]. Default is 1. While the property is not 0, public ip will be assigned for instance. ",
 "MinLength": "1",
 "MaxLength": "41"
},
"Zoneld": {
 "Type": "String",
 "Description": "The available zone Id",
 "AllowedValues": [
  "cn-shenzhen-c"
 ]
},
"DomainName": {
 "Type": "String",
 "Default": "adxing.com"
},
"SPFarmAccountPassword": {
 "NoEcho": true,
 "Type": "String",
 "Default": "Banana#12345"
},
"SPISOImageURI": {
 "Type": "String",
 "AllowedPattern": "^(?i)(s3|http|https):\\/\\/.+",
 "Default": "http://sharepointbucket.oss-cn-shenzhen-internal.aliyuncs.com/officeserver.img"
},
"ImageId": {
 "Type": "String",
 "Description": "Image Id, represents the image resource to startup one ECS instance,, <a href='#/
product/cn-shenzhen/list/imageList' target='_blank'>View image resources</a>",
 "Default": "win2012r2_64_dtc_17196_en-us_40G_alibase_20170915.vhd"
},
"SPFarmAccount": {
 "Type": "String",
 "Default": "spFarmAcc"
},
"InstanceType": {
 "Type": "String",
 "Description": "The instance type",
 "AllowedValues": [
  "ecs.c5.xlarge",
  "ecs.s1.small".
  "ecs.n4.small",
  "ecs.n4.large".
  "ecs.n4.xlarge",
  "ecs.mn4.small",
  "ecs.mn4.large",
  "ecs.mn4.xlarge",
  "ecs.n1.small",
  "ecs.n1.medium",
  "ecs.n1.large"
 ],
 "Default": "ecs.c5.xlarge"
```

```
},
```

```
"DomainAdminPassword": {
 "NoEcho": true,
 "Type": "String",
 "Default": "Banana#12345"
},
"DomainAdminUser": {
 "Type": "String",
 "Default": "spAdmin"
},
"Password": {
 "NoEcho": true,
 "Type": "String",
 "Default": "Banana12345"
}
},
"Resources": {
"WebServer": {
 "Type": "ALIYUN::ECS::Instance",
 "Properties": {
  "InternetMaxBandwidthOut": {
   "Ref": "InternetMaxBandwidthOut"
 },
  "UserData": {
   "Fn::Base64": {
    "Fn::Join": [
    "",
    [
     "[powershell]\n",
     "$webclient = New-Object System.Net.WebClient\n",
     "$url = 'http://sharepointbucket.oss-cn-shenzhen.aliyuncs.com/ros/Archive.zip'\n",
     "$file = 'C:/Archive.zip'\n",
     "$webclient.DownloadFile($url,$file)\n",
     "Expand-Archive -Path 'C:/Archive.zip' -DestinationPath 'C:/sp' -Force \n",
     "$webclientSP = New-Object System.Net.WebClient\n",
     "$officeserverfile = 'C:/officeserver.img'\n",
     "$spURL = '",
     {
      "Ref": "SPISOImageURI"
     },
     "'\n".
     "$webclientSP.DownloadFile($spURL,$officeserverfile)\n",
     "[bat]\n",
     "reg add 'HKLM\\SOFTWARE\\Microsoft\\Windows NT\\CurrentVersion\\Winlogon' /v AutoAd
minLogon /d 1 /f /reg:64\n",
     "reg add 'HKLM\\SOFTWARE\\Microsoft\\Windows NT\\CurrentVersion\\Winlogon' /v Default
UserName /d administrator /f /reg:64 \n",
     "reg add 'HKLM\\SOFTWARE\\Microsoft\\Windows NT\\CurrentVersion\\Winlogon' /v Default
Password /d ",
     ł
      "Ref": "Password"
     },
     "/f/reg:64 \n",
     "reg add 'HKLM\\SOFTWARE\\Microsoft\\Windows\\CurrentVersion\\RunOnce' /v Install /d 'p
```

```
owershell.exe -Command c:/sp/STEP1.ps1 ",
     "-DomainName ",
     {
      "Ref": "DomainName"
     },
     "-NewDomainNetbiosName ",
     {
      "Ref": "NewDomainNetbiosName"
     },
     "-DomainAdminPassword ",
     {
      "Ref": "DomainAdminPassword"
     },
     "-DomainAdminUser ",
     {
      "Ref": "DomainAdminUser"
     },
     "-SPFarmAccount ",
     {
      "Ref": "SPFarmAccount"
     },
     "-SPFarmAccountPassword ",
     {
      "Ref": "SPFarmAccountPassword"
     },
     " ' /f /reg:64 \n",
     "shutdown -r -t 2\n"
    ]
   ]
  }
 },
  "SecurityGroupId": {
  "Ref": "SecurityGroup"
 },
  "ImageId": {
  "Ref": "ImageId"
 },
  "InstanceType": {
  "Ref": "InstanceType"
 },
  "Password": {
  "Ref": "Password"
 }
 }
},
"SecurityGroup": {
 "Type": "ALIYUN::ECS::SecurityGroup",
 "Properties": {
  "SecurityGroupIngress": [
  {
   "PortRange": "-1/-1",
   "Priority": 1,
   "SourceCidrIp": "0.0.0.0/0",
   "IpProtocol": "all",
```

```
"NicType": "internet"
  }
 ],
  "SecurityGroupEgress": [
  {
   "PortRange": "-1/-1",
    "Priority": 1,
    "IpProtocol": "all",
    "DestCidrIp": "0.0.0.0/0",
    "NicType": "internet"
  }
 ]
 }
}
},
"Outputs": {
"InstanceId": {
 "Value": {
  "Fn::GetAtt": [
  "WebServer",
  "InstanceId"
 ]
 }
},
"PublicIp": {
 "Value":{
  "Fn::GetAtt": [
  "WebServer",
  "PublicIp"
 ]
}
},
"SecurityGroupId": {
 "Value":{
  "Fn::GetAtt": [
  "SecurityGroup",
  "SecurityGroupId"
 ]
}
}
}
}
```

iii. 完成模版输入后,单击**下一步**,对资源栈进行参数配置。

资源编排 ROS	直接输入	启动栈	创建成功
资源栈管理	已选地域:	华南 1	
资源类型	• 栈名 @:		
模板样例		长度1-64个字符,以大小写字母开头,可包含数字,"_"或"-" 栈名不能重复,创建后不能修改	
我的模板	* 创建超时 (分钟) 🖉:	60	
▼ 关键帮助		以分钟为单位的正验数,数子池图 10-180 ☑ 失败回滚	
可视化编辑器	NewDomainNetbiosName:	ADXING	
开始向导	 InternetMaxBandwidthOut @: 	5	
ECS实例相关信息 —	* Zoneld @:	cn-shenzhen-c	₽
BDS定例规格	DomainName:	adxing.com	
帮助手册	SPFarmAccountPassword:		
常见问题	Imageld @:	win2012r2 64 dtc 17196 en-us 40G alibase 20170915 vb	·
באנייוטע נדו	SPFarmAccount:	spFarmAcc	· 词
	InstanceType 🕖:	ecs.c5.xlarge	 ↓
	DomainAdminPassword:		
	DomainAdminUser:	spAdmin	
	Password:		
			上一步 预防 创建 取消

需要配置的参数如下(关于参数的描述,请参考参数): Imageld:ECS所使用的镜像,本示例中,我们使用 windows2012R2 InternetMaxBandwidthOut:ECS的出口带宽 Zoneld:ECS需要部署到的区域 Password:ECS的Administrator密码 DomainName:示例中 Domain的名称 NewDomainNetbiosName:示例中的 NetbiosName DomainAdminPassword:Domain管理员用户密码 DomainAdminUser:Domain用户名称 SPFarmAccount:SharePoint服务场管理员的账户名称 SPFarmAccountPassword:SharePoint服务场管理员的账户密码 SPISOImageURI:SharePoint的镜像地址,请使用将 img 文件上传至 OSS 后获取的URL InstanceType:ECS的规格。 iv. 模版创建完成后,在启动资源栈前输入参数内容。输入完成后,单击**创建**按钮。ROS会根据脚本以 及输入的参数开始创建资源。

资源创建完成后,可以在资源栈管理列表当中看到相应的资源栈。

资源编排 ROS	资源栈列表	华北1 4	毕北2 华北	3 华北5	华东1 华东2 :	华南1 香港 5	亚太东北 1 (东京)	亚太东南 1 (新加坡)	新建资源栈	•	₿刷新
资源栈管理		亚太东南 2	? (悉尼) 亚2	太东南3 (吉隆坡	() 亚太东南 5 (雅加	达) 亚太南部 1	(孟买) 美国东部	31(弗吉尼亚)			
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我的模板	资源栈名称;	请输入资源	原栈名进行查试	0	搜索						
关键帮助	名称 状态	5. (所有) 👻	超时 (分钟	失败回;	滚 状态描述			创建时间			操作
可视化编辑器	A2 🌘	创建完成	60	是	Stack CREA	TE completed suc	ccessfully	2018-03-06 00:55:42		管理	删除 更多▼
开始向导 ECS室侧相关信息	A1 ●	创建完成	60	是	Stack CREA	TE completed suc	ccessfully	2018-03-06 00:02:55		管理	删除
RDS实例规格								***** 558- 4	4		£9▼
帮助手册								·兴有Z宗, 毋贝並示: 11	JR « (1	> >>
常见问题											

以上是整个执行流程中需要用到的参数文件。

3. UserData 执行

ROS 模板中 UserData 的执行分为五个过程,其中的四个过程是通过四个PS1文件执行完成的。各过程的描述如下:

- i. 通过 UserData 的方式对机器进行设定,使其在启动时下载 SharePoint 镜像,并启用自动登录。
- ii. 安装 Domain 功能,并重启。
- iii. 在新安装的 Domain 下创建用户,并安装 Sharepoint 所需要的模块及 MSSQL,并重启。
- iv. 安装 SharePoint 服务并重启。
- v. 配置 SharePoint 服务。

具体执行步骤如下:

R

i. 机器首次启动后,系统将会下载 OSS 中的 SharePoint 文件,同时修改 Windows 的注册表,启用 系统免密码自动登录。此外,系统还会设定在下一次启动时运行 Domain 的安装脚本。



Press Ctrl+Alt+Delete to sign in.

ii. SharePoint 文件下载完成后,系统将会重启,并且开始执行 Domain 的安装脚本。该脚本会对用户 在 ROS 中设定的 Domain 进行配置。并将下一步需要执行的脚本写入注册表,等待下一次启动时运 行。



iii. 创建用户并安装必要先决服务及软件。

- a. 系统将会根据用户在ROS当中设定的DomainAdminUser和SPFarmAccount创建2个用户,分别用于管理 Domain 和 SP 服务器场。
- b. 开始安装以下内容: .NET Framework Feature, 'Application Server' role, 'Web Server' role, WAS Feature, 及 Windows Identity Foundation Feature

Administrator: W	indows PowerShell	-	x
Windows Server 2012 R2 - Configuration - Importing Module Servermanager			^
Collecting data 2% [oo			
			~

c. 开始下载并安装 MS SQL SERVER EXPRESS 2012 版本(这里演示程序默认下载EXPRESS 版本的 MSSQL)

C:\SQLEXPR_x64_ENU.exe" /Q /IACCEPTSQLSERVERLICENSETERMS /ACTION=install /ROLE=AllF eatures_WithDefaults /INSTANCENAME=\$(\$instanceName) /SQLSVCACCOUNT="\$(\$serviceAcc ount)

d. 关闭 IE Esc 选项,并离线下载和安装 SharePoint 2016 Preparation softer ware。因为某些原因,直接联网下载 Preparation softer ware 可能会失败,所以这里配置了脚本,使系统先下载文件,再进行安装。

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True No True No	NochangeNeeded {} NochangeNeeded {}	
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IE Enhanced Securi	ty Configuration (ESC) has been disabled.	
Your specified down	nload path does not exist. Proceeding to create same.	
PSParentPath PSChildName PSDrive	: Microsoft.PowerShell.Core\FileSystem::C:\ : PrerequisiteInstallerFiles : C	
PSProvider PSIsContainer	: Microsoft.PowerShell.Core\FileSystem : True	
Name FullName	: PrerequisiteInstallerFiles : C:\PrerequisiteInstallerFiles	
Parent Exists Root	: True : C:\	
Extension CreationTime	: : 3/6/2018 1:16:30 AM	
CreationTimeUtc LastAccessTime	: 3/5/2018 5:16:30 PM : 3/6/2018 1:16:30 AM	
LastWriteTime LastWriteTime	: 3/6/2018 5:16:30 PM : 3/6/2018 5:16:30 PM	
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iv. 当所有的先决服务和软件都安装成功后,脚本自动开始运行 SharePoint 的安装程序。安装程序会 首先检查先决服务和软件是否安装完成。



如果所有的准备工作都已完成,系统开始正式安装 SharePoint。

2	Administrator: Windows PowerShell	, 💶	×	
	Installation Progress Installation Progress Installation Progress Installation Progress Installing Microsoft SharePoint Server 2016 Trial			
			~	





v. SharePoint 安装完成后,系统将进行更新,并开始进入下一个阶段,进行 SharePoint 的配置。

vi. 配置过程完成后,我们可以打开 http://localhost:9527/default.aspx 进入 SharePoint 的管理站 点。



在管理员站点当中,我们可以创建自己的 Web application。

For Part of a	Ittp://localhost:952	27/_admin/extendvs.aspx?Source=http%3A%2F%2Flocalhost%3A9527%2F%5Fadmin%2Fcreatesite%2Easpx	の * C B Create New Web Application × B Home - Central Administration	<u></u>
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<pre>status display is provide for status is</pre>	pplication lanagement			OK Cancel
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在该网站集下,我们可以继续创建自己的站点。

SharePoint			ADXING\administrator *
			🖓 SHARE 🖂
S	Create Site Collection \circ		^
Central Administration			
Application			OK Cancel
Management	Web Application		
System Settings Monitoring	Select a web application.	Web Application: http://z6m274vextiktz/3081/ •	
Backup and Restore	To create a new web application go to New Web Application page.		
Security	Title and Description		
Upgrade and Migration	Type a title and description for your new site. The title will be displayed on each page in	Title:	
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Apps			
Office 365			
Configuration Wizards			
	Web Site Address Specify the URL name and URL path to create a new site, or choose to create a site at a specific path.	URL: http://tz6m274vextildrz80081 //	
	To add a new URL Path go to the Define Managed Paths page.		
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	Compress association	Select a template:	
		Collaboration Enterprise Publishing Custom	
		Blog	
		Project Site	
		Community Site	
		A place to work together with a group of people.	
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http://localhost:9527/security.aspx

完成站点的创建后,我们就可以开始体验 SharePoint 上的功能了。



2.Java SDK的LiveChannel常见操作

本文介绍Java SDK的LiveChannel常见操作,如创建LiveChannel、列举LiveChannel及删除LiveChannel等。

```
? 说明
```

本文示例由阿里云用户bin提供, 仅供参考。

创建LiveChannel

通过RT MP协议上传音视频数据前,必须先调用该接口创建一个LiveChannel。调用Put LiveChannel接口会返回RT MP推流地址,以及对应的播放地址。

② 说明 您可以使用返回的地址进行推流、播放,您还可以根据该LiveChannel的名称来发起相关的操作,如查询推流状态、查询推流记录、禁止推流等。

以下代码用于创建 LiveChannel:

```
public static void createLiveChannel() {
   String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
   // 阿里云账号AccessKey拥有所有API的访问权限,风险很高。强烈建议您创建并使用RAM用户进行API访问或日常
运维,请登录RAM控制台创建RAM用户。
   String accessKeyId = "<yourAccessKeyId>";
   String accessKeySecret = "<yourAccessKeySecret>";
   String liveChannelName = "<yourLiveChannelName>";
   // 创建OSSClient实例。
   OSS oss = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
   CreateLiveChannelRequest request = new CreateLiveChannelRequest(bucketName,
      liveChannelName, "desc", LiveChannelStatus.Enabled, new LiveChannelTarget());
   CreateLiveChannelResult result = oss.createLiveChannel(request);
   //获取推流地址。
   List<String> publishUrls = result.getPublishUrls();
   for (String item : publishUrls) {
     System.out.println(item);
   }
   //获取播放地址。
   List<String> playUrls = result.getPlayUrls();
   for (String item : playUrls) {
     System.out.println(item);
   }
   oss.shutdown();
 }
```

创建LiveChannel详情,请参见PutLiveChannel。

列举LiveChannel

以下代码用于列举指定的LiveChannel:

public static void listLiveChannels() {
 String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
 //阿里云账号AccessKey拥有所有API的访问权限,风险很高。强烈建议您创建并使用RAM用户进行API访问或日常
 运维,请登录RAM控制台创建RAM用户。
 String accessKeyId = "<yourAccessKeyId>";
 String accessKeySecret = "<yourAccessKeySecret>";
 String bucketName = "<yourBucketName>";
 // 创建OSSClient实例。
 OSS oss = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
 ListLiveChannelsRequest request = new ListLiveChannelsRequest(bucketName);
 LiveChannelListing liveChannelListing = oss.listLiveChannels(request);
 System.out.println(JSON.toJSONString(liveChannelListing));
 oss.shutdown();
 }

列举LiveChannel详情,请参见ListLiveChannel。

删除LiveChannel

? 说明

- 当有客户端正在向LiveChannel推流时,删除请求会失败。
- DeleteLiveChannel接口只会删除LiveChannel本身,不会删除推流生成的文件。

以下代码用于删除指定的LiveChannel:

```
public static void deleteLiveChannel() {
   String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
   // 阿里云账号AccessKey拥有所有API的访问权限,风险很高。强烈建议您创建并使用RAM用户进行API访问或日常
运维,请登录RAM控制台创建RAM用户。
   String accessKeyId = "<yourAccessKeyId>";
   String accessKeySecret = "<yourAccessKeySecret>";
   String bucketName = "<yourBucketName>";
   // 创建OSSClient实例。
   OSS oss = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
   LiveChannelGenericRequest request = new LiveChannelGenericRequest(bucketName, liveChannelName)
;
  try {
    oss.deleteLiveChannel(request);
  } catch (OSSException ex) {
    ex.printStackTrace();
  } catch (ClientException ex) {
    ex.printStackTrace();
  } finally {
    oss.shutdown();
  }
 }
```

删除LiveChannel详情,请参见DeleteLiveChannel。

设置LiveChannel状态

LiveChannel有enabled和disabled两种状态供您选择。

以下代码用于设置LiveChannel状态:

```
public static void setLiveChannelStatus() {
   String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
   // 阿里云账号AccessKey拥有所有API的访问权限,风险很高。强烈建议您创建并使用RAM用户进行API访问或日常
运维,请登录RAM控制台创建RAM用户。
   String accessKeyId = "<yourAccessKeyId>";
   String accessKeySecret = "<yourAccessKeySecret>";
   String liveChannelName = "<yourLiveChannelName>";
   String bucketName = "<yourBucketName>";
   // 创建OSSClient实例。
   OSS oss = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
   try {
    oss.setLiveChannelStatus(bucketName, liveChannelName, LiveChannelStatus.Enabled);
   } catch (OSSException ex) {
     System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
   } catch (ClientException ex) {
     System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
   } finally {
    oss.shutdown();
   }
 }
```

设置LiveChannel状态详情,请参见PutLiveChannelStatus。

获取LiveChannel状态信息

以下代码用于获取指定LiveChannel的推流状态信息。

```
public static void getLiveChannelStat() {
    String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
    // 阿里云账号AccessKey拥有所有API的访问权限,风险很高。强烈建议您创建并使用RAM用户进行API访问或日常
    运维,请登录RAM控制台创建RAM用户。
    String accessKeyId = "<yourAccessKeyId>";
    String accessKeySecret = "<yourAccessKeySecret>";
    String liveChannelName = "<yourLiveChannelName>";
    String bucketName = "<yourLiveChannelName>";
    // 创建OSSClient实例。
    OSS oss = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
    LiveChannelStat liveChannelStat = oss.getLiveChannelStat(bucketName, liveChannelName);
    System.out.println(liveChannelStat.toString());
    oss.shutdown();
  }
```

获取LiveChannel状态信息详情,请参见GetLiveChannelStat。

获取LiveChannel配置信息

以下代码用于获取指定LiveChannel的配置信息:

public static void getLiveChannelInfo() {
 String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
 // 阿里云账号AccessKey拥有所有API的访问权限,风险很高。强烈建议您创建并使用RAM用户进行API访问或日常
 远维,请登录RAM控制台创建RAM用户。
 String accessKeyld = "<yourAccessKeyld>";
 String accessKeyld = "<yourAccessKeyld>";
 String accessKeySecret = "<yourAccessKeySecret>";
 String bucketName = "<yourBucketName>";
 // 创建OSSClientRuilder().build(endpoint, accessKeyId, accessKeySecret);
 LiveChannelInfo liveChannelInfo = oss.getLiveChannelInfo(bucketName, liveChannelName);
 System.out.println(JSON.toJSONString(liveChannelInfo));
 oss.shutdown();
 }

获取LiveChannel配置信息详情,请参见GetLiveChannelInfo。

生成LiveChannel播放列表

PostVodPlaylist接口用于为指定的LiveChannel生成一个点播用的播放列表。OSS会查询指定时间范围内由该 LiveChannel推流生成的ts文件,并将其拼装为一个m3u8播放列表。

以下代码用于生成LiveChannel播放列表:

```
public static void postVodPlaylist() {
   String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
   // 阿里云账号AccessKey拥有所有API的访问权限,风险很高。强烈建议您创建并使用RAM用户进行API访问或日常
运维,请登录RAM控制台创建RAM用户。
   String accessKeyId = "<yourAccessKeyId>";
   String accessKeySecret = "<yourAccessKeySecret>";
   String liveChannelName = "<yourLiveChannelName>";
   String bucketName = "<yourBucketName>";
   String playListName = "<yourPlayListName>";
   // 创建OSSClient实例。
   OSS oss = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
   long startTime = getUnixTimestamp("2019-06-27 23:00:00");
   long endTime = getUnixTimestamp("2019-06-28 22:00:00");
   try {
    oss.generateVodPlaylist(bucketName, liveChannelName, playListName, startTime, endTIme);
   } catch (OSSException ex) {
     System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
   } catch (ClientException ex) {
     System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
   } finally {
     oss.shutdown();
   }
 }
 private static long getUnixTimestamp(String time) {
   DateFormat format = new SimpleDateFormat("yyyy-MM-dd HH:mm:ss");
   try {
     Date date = format.parse(time);
     return date.getTime() / 1000;
   } catch (ParseException e) {
     e.printStackTrace();
     return 0;
   }
 }
```

生成LiveChannel播放列表详情,请参见PostVodPlaylist。

查看LiveChannel播放列表

以下代码用于查看指定LiveChannel推流生成的、且指定时间段内的播放列表:

```
public static void getVodPlaylist() {
   String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
   // 阿里云账号AccessKey拥有所有API的访问权限,风险很高。强烈建议您创建并使用RAM用户进行API访问或日常
运维,请登录RAM控制台创建RAM用户。
   String accessKeyId = "<yourAccessKeyId>";
   String accessKeySecret = "<yourAccessKeySecret>";
   String liveChannelName = "<yourLiveChannelName>";
   String bucketName = "<yourBucketName>";
   // 创建OSSClient实例。
   OSS oss = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
   long startTime = getUnixTimestamp("2019-06-27 23:00:00");
   long endTime = getUnixTimestamp("2019-06-28 22:00:00");
   try {
     OSSObject ossObject = oss.getVodPlaylist(bucketName, liveChannelName, startTime, endTIme);
    System.out.println(ossObject.toString());
   } catch (OSSException ex) {
    System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
   } catch (ClientException ex) {
     System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
   } finally {
    oss.shutdown();
   }
 }
 private static long getUnixTimestamp(String time) {
   DateFormat format = new SimpleDateFormat("yyyy-MM-dd HH:mm:ss");
   try {
     Date date = format.parse(time);
     return date.getTime() / 1000;
   } catch (ParseException e) {
    e.printStackTrace();
     return 0;
   }
 }
```

查看LiveChannel播放列表详情,请参见GetVodPlaylist。

获取LiveChannel推流记录

GetLiveChannelHistory接口用于获取指定LiveChannel的推流记录。使用GetLiveChannelHistory接口最多会返回指定LiveChannel最近的10次推流记录。

以下代码用于获取LiveChannel推流记录:

public void getLiveChannelHistory() {
 String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
 // 阿里云账号AccessKey拥有所有API的访问权限,风险很高。强烈建议您创建并使用RAM用户进行API访问或日常
 运维,请登录RAM控制台创建RAM用户。
 String accessKeyId = "<yourAccessKeyId>";
 String accessKeySecret = "<yourAccessKeySecret>";
 String bucketName = "<yourAccessKeySecret>";
 String liveChannelName = "<yourLiveChannelName>";
 // 创建OSSClient实例。
 OSS oss = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
 List<LiveRecord> list = oss.getLiveChannelHistory(bucketName, liveChannelName);
 System.out.println(JSON.toJSONString(list));
 oss.shutdown();
 }
}

获取LiveChannel推流记录详情,请参见GetLiveChannelHistory。

3.Python SDK 的 LiveChannel 常见操 作

本文介绍 Python SDK 的 LiveChannel 常见操作,如创建 LiveChannel、列举 LiveChannel 及删除 LiveChannel 等。

? 说明

本文示例由阿里云用户 fralychen 提供, 仅供参考。

环境准备

• Python 3.6

⑦ 说明 本文档示例基于Python 3.6版本编写,同样适用于Python 2.6、2.7、3.3、3.4、3.5版本。

- aliyun-oss-python-sdk 2.9.0
- OBS Studio 推流工具
- IDE

有关 LiveChannel 详情,请参见LiveChannel简介、live_channel.py以及api.py。

创建 LiveChannel

通过RT MP协议上传音视频数据前,必须先调用该接口创建一个LiveChannel。调用Put LiveChannel接口会返回RT MP推流地址,以及对应的播放地址。

⑦ 说明 您可以使用返回的地址进行推流、播放,您还可以根据该LiveChannel的名称来发起相关的操作,如查询推流状态、查询推流记录、禁止推流等。

以下代码用于创建 LiveChannel:

```
import os
import oss2
access_key_id = os.getenv('OSS_TEST_ACCESS_KEY_ID', '**')
access_key_secret = os.getenv('OSS_TEST_ACCESS_KEY_SECRET', '***')
bucket_name = os.getenv('OSS_TEST_BUCKET', '*******')
endpoint = os.getenv('OSS_TEST_ENDPOINT', '***')
#创建Bucket实例。
bucket = oss2.Bucket(oss2.Auth(access_key_id, access_key_secret), endpoint, bucket_name)
#创建并配置流频道。
#频道的名称是test rtmp live。直播生成的m3u8文件叫做test.m3u8,该索引文件包含3片ts文件,每片ts文件的时
长为5秒(这只是一个建议值,具体的时长取决于关键帧)。
channel_name = "test_rtmp_live"
playlist_name = "test.m3u8"
create_result = bucket.create_live_channel(
   channel_name,
   oss2.models.LiveChannelInfo(
    status = 'enabled',
    description = '测试使用的直播频道',
    target = oss2.models.LiveChannelInfoTarget(
      playlist_name = playlist_name,
      frag_count = 3,
      frag_duration = 5)))
```

创建LiveChannel详情,请参见PutLiveChannel。

列举和删除 LiveChannel

以下代码用于列举和删除 LiveChannel:

```
import os
import oss2
access_key_id = os.getenv('OSS_TEST_ACCESS_KEY_ID', '**')
access_key_secret = os.getenv('OSS_TEST_ACCESS_KEY_SECRET', '***')
bucket_name = os.getenv('OSS_TEST_BUCKET', '*******')
endpoint = os.getenv('OSS_TEST_ENDPOINT', '***')
#创建Bucket实例。
bucket = oss2.Bucket(oss2.Auth(access_key_id, access_key_secret), endpoint, bucket_name)
#列举符合规则的LiveChannel。
#列举出Bucket下所有符合条件的livechannel。
# param: prefix (类型: str)表示要列举的livechannel名称的前缀,不指定则列举所有的livechannel。
# return: class: `ListLiveChannelResult <oss2.models.ListLiveChannelResult>`
for info in oss2.LiveChannellterator(bucket, prefix="test"):
 print(info.name)
#删除LiveChannel。
bucket.delete_live_channel(info.name)
```

列举 LiveChannel 的更多详情,请参见ListLiveChannel。删除 LiveChannel 的更多详情,请参见DeleteLiveChannel。

设置 LiveChannel 状态

LiveChannel有enabled和disabled两种状态供您选择。

以下代码用于设置LiveChannel状态:

```
import os
import oss2
access_key_id = os.getenv('OSS_TEST_ACCESS_KEY_ID', '**')
access_key_secret = os.getenv('OSS_TEST_ACCESS_KEY_SECRET', '***')
bucket_name = os.getenv('OSS_TEST_BUCKET', '******')
endpoint = os.getenv('OSS_TEST_ENDPOINT', '***')
# 创建Bucket实例。
bucket = oss2.Bucket(oss2.Auth(access_key_id, access_key_secret), endpoint, bucket_name)
# 打开或关闭流频道。
bucket.put_live_channel_status(channel_name, 'enabled')
bucket.put_live_channel_status(channel_name, 'disabled')
```

设置LiveChannel状态详情,请参见PutLiveChannelStatus。

获取 RTMP 推流地址及签名

以下代码用于获取 RT MP 推流地址及签名:

```
import os
import oss2
access_key_id = os.getenv('OSS_TEST_ACCESS_KEY_ID', '**')
access_key_secret = os.getenv('OSS_TEST_ACCESS_KEY_SECRET', '***')
bucket_name = os.getenv('OSS_TEST_BUCKET', '*******')
endpoint = os.getenv('OSS_TEST_ENDPOINT', '***')
#创建Bucket实例。
bucket = oss2.Bucket(oss2.Auth(access_key_id, access_key_secret), endpoint, bucket_name)
#获取推流和观流地址。
# 创建直播频道之后拿到推流用的play_url(rtmp推流的url,如果Bucket ACL为非公共读写,则需要带上签名,见下
文示例)和观流用的publish_url(推流产生的m3u8文件的url)。
# 通过create_live_channel()获取create_result。
publish_url = create_result.publish_url
play_url = create_result.play_url
print("推流地址:",publish_url)
print("观流地址:",play_url)
# 拿到推流地址和观流地址之后就可以向OSS推流和观流。如果Bucket ACL为非公共读写,则需要对推流做签名,如果
Bucket ACL为公共读写,则可以直接用publish_url推流。
# 这里的expires是一个相对时间,表示从现在开始此次推流过期的秒数。
#所有的参数都会参与签名。
# 拿到签名后的signed_url就可以使用推流工具直接进行推流。一旦连接上OSS之后即使超出上面设置的expires也不
会断流,OSS仅在每次推流连接的时候检查expires是否合法。
signed_url = bucket.sign_rtmp_url(channel_name, playlist_name, expires=3600)
print(signed_url)
```

获取 LiveChannel 状态信息

以下代码用于获取指定LiveChannel的推流状态信息。

import os import oss2 access_key_id = os.getenv('OSS_TEST_ACCESS_KEY_ID', '**') access_key_secret = os.getenv('OSS_TEST_ACCESS_KEY_SECRET', '***') bucket_name = os.getenv('OSS_TEST_BUCKET', '******') endpoint = os.getenv('OSS_TEST_ENDPOINT', '***') # 创建Bucket实例。 bucket = oss2.Bucket(oss2.Auth(access_key_id, access_key_secret), endpoint, bucket_name) # 查看当前流的状态信息。 get_status = bucket.get_live_channel_stat(channel_name) print("连接时间:",get_status.connected_time) print("推流客户端的IP:",get_status.remote_addr) print("推流状态:",get_status.status)

获取LiveChannel状态信息详情,请参见GetLiveChannelStat。

生成并查看播放列表

Post_Vod_Playlist 接口用于为指定的 LiveChannel 生成一个点播用的播放列表。OSS 会查询指定时间范围内 由该 LiveChannel 推流生成的 ts 文件,并将其拼装为一个 m3u8 播放列表。

以下代码用于生成并查看播放列表:

```
import os
import oss2
import time
access_key_id = os.getenv('OSS_TEST_ACCESS_KEY_ID', '**')
access_key_secret = os.getenv('OSS_TEST_ACCESS_KEY_SECRET', '***')
bucket_name = os.getenv('OSS_TEST_BUCKET', '*******')
endpoint = os.getenv('OSS_TEST_ENDPOINT', '***')
#创建Bucket实例
bucket = oss2.Bucket(oss2.Auth(access_key_id, access_key_secret), endpoint, bucket_name)
end_time = int(time.time())
start_time = end_time - 3600
generate_playlist = "my_vod_list.m3u8"
#生成点播列表。
# 如果希望利用直播推流产生的ts文件生成一个点播列表,可以使用post_vod_playlist方法。
# 本示例指定起始时间为当前时间减去3600秒,结束时间为当前时间,即表示将最近一个小时的推流生成一个播放列表
#这个接口调用成功之后会在OSS上生成一个名为"my_vod_list.m3u8"的播放列表文件。
bucket.post_vod_playlist(
     channel_name,
     playlist_name,
     start_time = start_time,
     end_time = end_time)
# 如果想查看指定时间段内的播放列表内容,可以使用get_vod_playlist。
result = bucket.get_vod_playlist(channel_name, start_time=start_time, end_time=end_time)
print("playlist:", result.playlist)
```

```
生成LiveChannel播放列表详情,请参见PostVodPlaylist。
查看LiveChannel播放列表详情,请参见GetVodPlaylist。
```

获取 LiveChannel 配置信息

以下代码用于获取指定LiveChannel的配置信息:

```
import os
import oss2
access_key_id = os.getenv('OSS_TEST_ACCESS_KEY_ID', '**')
access_key_secret = os.getenv('OSS_TEST_ACCESS_KEY_SECRET', '***')
bucket_name = os.getenv('OSS_TEST_BUCKET', '*******')
endpoint = os.getenv('OSS_TEST_ENDPOINT', '***')
#创建Bucket实例。
bucket = oss2.Bucket(oss2.Auth(access_key_id, access_key_secret), endpoint, bucket_name)
#获取LiveChannel的配置信息。
get_result = bucket.get_live_channel(channel_name)
print("-----")
print("推流配置信息:")
print(get_result.description)
print(get_result.status)
print(get_result.target.type)
print(get_result.target.frag_count)
print(get_result.target.frag_duration)
print(get_result.target.playlist_name)
print("-----")
```

获取LiveChannel配置信息详情,请参见GetLiveChannelInfo。

获取 LiveChannel 推流记录

使用 get_live_channel_history 接口最多会返回指定 LiveChannel 最近的 10 次推流记录。以下代码用于获取 LiveChannel 推流记录:

```
import os
import oss2
access_key_id = os.getenv('OSS_TEST_ACCESS_KEY_ID', '**')
access_key_secret = os.getenv('OSS_TEST_ACCESS_KEY_SECRET', '***')
bucket_name = os.getenv('OSS_TEST_BUCKET', '****')
endpoint = os.getenv('OSS_TEST_BUCKET', '***')
# 创建Bucket实例。
bucket = oss2.Bucket(oss2.Auth(access_key_id, access_key_secret), endpoint, bucket_name)
# 查看一个频道历史推流记录。
history_result = bucket.get_live_channel_history(channel_name)
print("推流历史次数:",len(history_result.records))
```

获取LiveChannel推流记录详情,请参见GetLiveChannelHistory。

FAQ

• 推流状态、客户端 IP、连接时间等信息为何获取不了?

get_live_channel_st at 获取推流状态信息要求对应的频道(channel_name)处于 Live 状态,即连接上推 流地址后客户端正处于推流中的状态。

• .get_live_channel_history能否获取历史推流的起止时间和远端地址?

可以。详情请参见GetLiveChannelHistory。

- 通过 list_live_channel 获取到的频道信息是什么类型的?
 字符串。详情请参见ListLiveChannel。
- 生成点播列表 post_vod_playlist 函数中 end_time 参数所需要的格式是什么?
 整数。详情请参见PostVodPlaylist。
- 报错【'Code': 'InvalidArgument', 'Message': 'No ts file found in specified time span.'】。
 已上传推流文件后才能生成点播列表。

4.使用 Java SDK 的 SelectObject 查询 CSV 和 JSON 文件

本文介绍如何使用 Java SDK 的 Select Object 查询 CSV 和 JSON 文件。

? 说明

本文示例由阿里云用户 bin 提供, 仅供参考。

以下代码用于查询 CSV 文件和 JSON 文件:

```
private static final String csvKey = "test.csv";
// Endpoint 以杭州为例,其它 Region 请按实际情况填写。
private static final String endpoint = "http://oss-cn-hangzhou.aliyuncs.com";
// 阿里云主账号 AccessKey 拥有所有 API 的访问权限,风险很高。
// 强烈建议您创建并使用 RAM 账号进行 API 访问或日常运维,请登录 https://ram.console.aliyun.com 创建 RAM 账
号。
private static final String accessKeyId = "<yourAccessKeyId>";
private static final String accessKeySecret = "<yourAccessKeySecret>";
private static final String bucketName = "<yourBucketName>";
 /**
 * CreateSelectObjectMeta API 用于获取目标文件总的行数,总的列数(对于 CSV 文件),以及 Splits 个数。
 */
 public static void createCsvSelectObjectMetadata() {
  // 创建 OSSClient 实例。
  OSS client = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
  String content = "name, school, company, age\r\n" +
    "Lora Francis, School A, Staples Inc, 27\r\n" +
    "Eleanor Little, School B,\"Conectiv, Inc\",43\r\n" +
    "Rosie Hughes, School C, Western Gas Resources Inc, 44\r\n" +
    "Lawrence Ross, School D, MetLife Inc., 24";
  client.putObject(bucketName, csvKey, new ByteArrayInputStream(content.getBytes()));
  SelectObjectMetadata selectObjectMetadata = client.createSelectObjectMetadata(
    new CreateSelectObjectMetadataRequest(bucketName, csvKey)
     .withInputSerialization(
        new InputSerialization().withCsvInputFormat(
         new CSVFormat().withHeaderInfo(CSVFormat.Header.Use)
           .withRecordDelimiter("\r\n")));
  //获取 csv 的总列数。
  System.out.println(selectObjectMetadata.getCsvObjectMetadata().getTotalLines());
  //获取 csv 的 splits 个数。
  System.out.println(selectObjectMetadata.getCsvObjectMetadata().getSplits());
  client.shutdown();
}
 * 查询 csv。
 */
 public static void selectCsv() {
  // 创建 OSSClient 实例。
  OSS client = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
  trv {
```

SelectObjectRequest selectObjectRequest = new SelectObjectRequest(bucketName, csvKey) .withInputSerialization(new InputSerialization().withCsvInputFormat(new CSVFormat().withHeaderInfo(CSVFormat.Header.Use) .withRecordDelimiter("\r\n"))) .withOutputSerialization(new OutputSerialization().withCsvOutputFormat(new CSVFormat())); // ossobject 不可修改,查询第 4 列值大于 40 的数据,会直接进行隐式转换。 selectObjectRequest.setExpression("select * from ossobject where _4 > 40"); OSSObject ossObject = client.selectObject(selectObjectRequest); writeToFile(ossObject.getObjectContent(), "result.csv"); } catch (OSSException ex) { System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage())); } catch (ClientException ex) { System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage())); } finally { client.shutdown(); } } /** * 查询简单 ison。 */ public static void selectSimpleJson() { String key = "simple.json"; // 创建 OSSClient 实例。 OSS client = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret); final String content = "{\n" + "\t\"name\": \"Lora Francis\",\n" + "\t\"age\": 27,\n" + "\t\"company\": \"Staples Inc\"\n" + "}\n"+ "{\n"+ "\t\"name\": \"Eleanor Little\",\n" + "\t\"age\": 43,\n" + "\t\"company\": \"Conectiv, Inc\"\n" + "}\n" + "{\n"+ "\t\"name\": \"Rosie Hughes\",\n" + "\t\"age\": 44,\n" + "\t\"company\": \"Western Gas Resources Inc\"\n" + "}\n" + "{\n" + "\t\"name\": \"Lawrence Ross\",\n" + "\t\"age\": 24,\n" + "\t\"company\": \"MetLife Inc.\"\n" + "}"; try { client.putObject(bucketName, key, new ByteArrayInputStream(content.getBytes())); SelectObjectRequest selectObjectRequest = new SelectObjectRequest(bucketName, key) .withInputSerialization(new InputSerialization() .withCompressionType(CompressionType.NONE) .withJsonInputFormat(new JsonFormat().withJsonType(JsonType.LINES))) withOutnutSarialization/new OutnutSarialization()

```
.withoutputsenauzation(new outputsenauzation()
         .withCrcEnabled(true)
          .withJsonOutputFormat(new JsonFormat()))
       .withExpression("select * from ossobject as s where s.age > 40");
    OSSObject ossObject = client.selectObject(selectObjectRequest);
    writeToFile(ossObject.getObjectContent(), "result.simple.json");
  } catch (OSSException ex) {
    System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
  } catch (ClientException ex) {
    System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
  } finally {
    client.shutdown();
  }
}
/**
* 查询复杂 json。
*/
public static void selectComplexJson() {
  String key = "complex.json";
  // 创建 OSSClient 实例。
  OSS client = new OSSClientBuilder().build(endpoint, accessKeyId, accessKeySecret);
  String content = "{\n" +
    " \"contacts\":[\n" +
    "{\n" +
    " \"firstName\": \"John\",\n" +
    " \"lastName\": \"Smith\",\n" +
    " \"isAlive\": true,\n" +
    " \"age\": 27,\n" +
    " \"address\": {\n" +
    " \"streetAddress\": \"21 2nd Street\",\n" +
    " \"city\": \"New York\",\n" +
    " \"state\": \"NY\",\n" +
    " \"postalCode\": \"10021-3100\"\n" +
    " },\n"+
    " \"phoneNumbers\": [\n" +
    " {\n"+
    ....
      "type": "home", n" +
      \"number\": \"212 555-1234\"\n" +
    " },\n"+
    " {\n"+
    ....
       \"type\": \"office\",\n" +
    " \"number\": \"646 555-4567\"\n" +
    " },\n"+
    " {\n"+
    ...
       \"type\": \"mobile\",\n" +
    ....
      \"number\": \"123 456-7890\"\n" +
    " }\n"+
    "],\n"+
    " \"children\": [],\n" +
    " \"spouse\": null\n" +
    "}\n" +
    "]}";
  try {
    client.putObject(bucketName, key, new ByteArrayInputStream(content.getBytes()));
    SelectObjectRequest selectObjectRequest =
```

```
new SelectObjectRequest(bucketName, key)
      .withInputSerialization(new InputSerialization()
         .withCompressionType(CompressionType.NONE)
         .withJsonInputFormat(new JsonFormat().withJsonType(JsonType.LINES)))
      .withOutputSerialization(new OutputSerialization()
         .withCrcEnabled(true)
         .withJsonOutputFormat(new JsonFormat()))
      //返回所有 age 是 27 的记录,表达式可以根据 json 对象结构进行嵌套调用。
      .withExpression("select * from ossobject.contacts[*] s where s.age = 27");
   OSSObject ossObject = client.selectObject(selectObjectRequest);
   writeToFile(ossObject.getObjectContent(), "result.complex.json");
 } catch (OSSException ex) {
   System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
 } catch (ClientException ex) {
   System.out.println(ex.getErrorCode().concat(",").concat(ex.getErrorMessage()));
 } finally {
   client.shutdown();
 }
}
/**
 * 写入文件。
* @param in
* @param file
*/
private static void writeToFile(InputStream in, String file) {
 try {
   BufferedOutputStream outputStream = new BufferedOutputStream(new FileOutputStream(file));
   byte[] buffer = new byte[1024];
   int bytesRead;
   while ((bytesRead = in.read(buffer)) != -1) {
    outputStream.write(buffer, 0, bytesRead);
   }
   outputStream.close();
 } catch (FileNotFoundException ex) {
   ex.printStackTrace();
 } catch (IOException ex) {
   ex.printStackTrace();
 }
}
```

Select Object 的更多详情,请参考Select Object。

5.使用Python SDK的SelectObject查询 CSV和JSON文件

本文介绍如何使用Python SDK的SelectObject查询CSV和JSON文件。

? 说明

本文示例由阿里云用户fralychen提供, 仅供参考。

上传CSV或JSON格式文件

您可以根据业务需求,在OSS管理控制台将CSV或JSON格式文件上传到OSS bucket中。如何将文件上传至OSS bucket,请参见上传文件。

调用测试

通过put_object中的key、contant参数创建并上传了一个名为python_select的文件。

② 说明 以下JSON与CSV示例需分开执行。

```
import os
import oss2
#首先初始化AccessKeyId、AccessKeySecret、Endpoint等信息。
#通过环境变量获取,或者把诸如 "<yourAccessKeyId>" 替换成真实的AccessKeyId等。
#以杭州区域为例, Endpoint可以是:
# http://oss-cn-hangzhou.aliyuncs.com
# https://oss-cn-hangzhou.aliyuncs.com
access_key_id = os.getenv('OSS_TEST_ACCESS_KEY_ID', '<yourAccessKeyId>')
access_key_secret = os.getenv('OSS_TEST_ACCESS_KEY_SECRET', '<yourAccessKeySecret>')
bucket_name = os.getenv('OSS_TEST_BUCKET', '<yourBucket>')
endpoint = os.getenv('OSS_TEST_ENDPOINT', '<yourEndpoint>')
# 创建存储空间实例,所有文件相关的方法都需要通过存储空间实例来调用。
bucket = oss2.Bucket(oss2.Auth(access_key_id, access_key_secret), endpoint, bucket_name)
### CSV示例
key = 'python_select.csv'
#文件内容。
content = 'fralychen,China,30\r\nTom,USA,20\r\n'
filename = 'python_select.csv'
#上传一个名为python_select.csv文件。
bucket.put_object(key, content)
#通过select_object使用sql语法查询文件。
# def select_object(self, key, sql,
#
        progress_callback=None,
#
        select_params=None,
#
        byte_range=None
#
        )
result = bucket.select_object(key, 'select * from ossobject where _3 > 29')
print('csv select result:')
print(result.read())
### JSON示例
key = 'python_select.json'
#content = "{"contacts":
#
    [
#
     {
#
     "key1":1,
     "key2":"love china"
#
#
     },
#
     {
#
     "key1":2,
     "key2":"fralychen"
#
#
     }
#
  1
# }"
content = "{\"contacts\":[{\"key1\":1,\"key2\":\"love China\"},{\"key1\":2,\"key2\":\"fralychen\"}]}"
#上传一个名为python_select.json文件。
bucket.put_object(key,content)
select_json_params = {'Json_Type': 'DOCUMENT'}
result = bucket.select_object(key,'select s.key2 from ossobject.contacts[*] s where s.key1 = 1', None, select_
json_params)
print('json select result:')
print(result.read())
```

输出示例

您可以在OSS控制台上查看上传后的python_select.csv及python_select.json文件。



CSV及JSON的示例输出结果如下所示。

csv select result: fralychen,China,30	
json select result: {"key2":"love China"}	

常见SQL语句

常见的SQL应用场景及对应的SQL语句如下表所示:

应用场景	SQL语句
返回前10行数据	select * from ossobject limit 10
返回第1列和第3列的整数,并且第1列大于第3列	select _1, _3 from ossobject where cast(_1 as int) > cast(_3 as int)
	select count(*) from ossobject where _1 like '陈%'
返回第1列以'陈'开头的记录的个数	⑦ 说明 此处like之后的中文需要用UTF-8编码。
返回所有第2列时间大于2018-08-09 11:30:25且第3列 大于200的记录	select * from ossobject where _2 > cast('2018-08-09 11:30:25' as timestamp) and _3 > 200
返回第2列浮点数的平均值、总和、最大值、和最小值	select AVG(cast(_2 as double)), SUM(cast(_2 as double)), MAX(cast(_2 as double)), MIN(cast(_2 as double))
返回第1列和第3列连接的字符串中以'Tom'为开头 以'Anderson'结尾的所有记录	select * from ossobject where (_1 _3) like 'Tom%Anderson'
返回第1列能被3整除的所有记录	select * from ossobject where (_1 % 3) = 0
返回第1列大小在1995到2012之间的所有记录	select * from ossobject where _1 between 1995 and 2012
返回第5列值为N、M、G、和L的所有记录	select * from ossobject where _5 in ('N', 'M', 'G', 'L')
返回第2列乘以第3列比第5列大100以上的所有记录	select * from ossobject where _2 * _3 > _5 + 100

更多参考

有关Python SDK API的更多信息,请参见Git Hub。

有关SelectObject的更多信息,请参见使用SelectObject查询文件。

有关使用Python SDK的SelectObject查询CSV和JSON文件的更多信息,请参见查询文件。