配置在CGR1xxx的CGM-SRV IOx模块

目录

<u>简介</u> <u>先决条件</u> <u>要求</u> 使用的组件 <u>背景信息</u> 配置 <u>网络图</u> <u>CGM-SRV模块的安装在CGR1000的</u> <u>安装在CGM-SRV模块的估计镜像</u> 配置接口, DHCP和NAT <u>验证</u> 故障排除

简介

本文描述如何配置已连接网格路由器(CGR) 1000系列平台设备为了用在IOx连接的网格模块 (CGM)上-系统服务器(SRV)模块。

<u>先决条件</u>

<u>要求</u>

Cisco 建议您了解以下主题:

- 路由
- 交换
- 网络地址转换 (NAT)
- 了解虚拟化概念

使用的组件

本文档中的信息基于以下软件和硬件版本:

- CGR1120 运行至少15.6-3 (CGR1000) -universalk9-bundle.SSA.156-3.M2自由模块插槽在 Gi2/1的IP地址配置的安全壳SSH
- CGM-SRV-XX模块

背景信息

当您要运行IOx应用程序或虚拟机在CGR1000平台时,您能使用CGM-SRV估计模块。包含一多芯的x86 CPU、内存和存储设备的CGM-SRV模块实际上是小型服务器。CGR1120和CGR1240能有 这些模块添加IOx功能之一。

有,在您写入时候,两个类型可用如表所显示:

股票保持单元(SKU) 固体驱动(SSD) RAM CPU CGM-SRV-64 64GB (可用的50GB) 4GB 4核心800Mhz CGM-SRV-128 128GB (可用的100GB) 4GB 4核心800Mhz

每个模块也有存储设备和其自己的外部千兆以太网接口的两个USB端口。

如同其他IOX有能力设备,模块能主机不同种类的IOx应用程序,但是由于CGM-SRV模块的大容量 ,能也运行一充分地已配置的Windows或标准的Linux distro (例如Ubuntu或CentOS)如镜像所显示



配置

网络图

CGM-SRV模块有三个网络接口、两个内部接口往Cisco IOS和一个外部在CGM-SRV模块运行的一 个专用连接的对访客。

如表所显示,使用的接口是:

名称 位置 连接到

Gi <slot>/1</slot>	内部对Cisco IOS	CGM-SRV (运行思科应用程序做主机框架的主机 OS (CAF))	在主机OS的eth_mgmt
Gi <slot>/2</slot>	内部对Cisco IOS	CGM-SRV访客VMs (IOx apps)	在主机的svcbr_0 OS > dpbr_0
eth0	在模块的外部	CGM-SRV访客VMs (IOx apps)	在主机的svcbr_1 OS > dpbr_1

图表一切如何被互联如镜像所显示,是:



CGM-SRV模块的安装在CGR1000的

为了配置在CGR1000的CGM-SRV,您需要从模块的插入在CGR1120的开始。这可以执行,不用需要采取设备脱机如下:

步骤1.关闭您要安装CGM-SRV模块的模块端口:

KJK_CGR1120_20#conf t Enter configuration commands, one per line. End with CNTL/Z. KJK_CGR1120_20(config)#hw-module poweroff 4 **第二步:您能物理的插入在插槽4的模块。一旦模块插入,您能通电模块插槽后面孔**:

KJK_CGR1120_20(config)#no hw-module poweroff 4 第三步:请检查模块是否识别,当您盼望它是:

KJK_CGR1120_20#sh module 4										
Mod	Ports	Module-Type	Model	Status						
4	1	CGR1000 Server Module 64GB Disk	CGM-SRV-64	ok						

_ _ _

4 1.0 FOCXXXXXXXX

正如你在输出看到此处,模块在插槽4识别并且准备。您当前准备开始配置一切。

安装在CGM-SRV模块的估计镜像

下一步是装载在模块的主机操作系统(OS)镜像。此的镜像可以下载从

: https://software.cisco.com/download/release.html?mdfid=284174271&softwareid=286312260

在您下载从Cisco在线连接(CCO)后的镜像,加载/下载它对CGR1000 :

KJK_CGR1120_20#copy scp://jedepuyd@10.X.X.X/cgr1000-compute-1.2.5.1.SPA flash: Destination filename [cgr1000-compute-1.2.5.1.SPA]? Password: Sending file modes: C0644 69765564 cgr1000-compute-1.2.5.1.SPA ... 69765564 bytes copied in 1367.560 secs (51015 bytes/sec) 一旦镜像是可用的在CGR1000,您在CGM-SRV模块能安装它:

KJK_CGR1120_20#server-module 4 install flash:cgr1000-compute-1.2.5.1.SPA
Operation requires module reload, do you want to continue? [yes]: yes
Installing image: /cgr1000-compute-1.2.5.1.SPA Done!

配置接口, DHCP和NAT

如上所述,您有两在连接CGM-SRV的Cisco IOS的内部接口。因为您插入在插槽4的模块,这些接 口被命名:Gi4/1和Gi4/2。,当您使用NAT时,内部只使用在这些接口的IP地址。

配置Gi4/1,在CGM-SRV运行Cisco IOS和主机OS之间的连接的:

```
KJK_CGR1120_20#conf t
Enter configuration commands, one per line. End with CNTL/Z.
KJK_CGR1120_20(config)#int gi4/1
KJK_CGR1120_20(config-if)#ip addr 192.168.100.1 255.255.255.0
KJK_CGR1120_20(config-if)#ip nat inside
KJK_CGR1120_20(config-if)#ip virtual-reassembly in
KJK_CGR1120_20(config-if)#duplex auto
KJK_CGR1120_20(config-if)#speed auto
KJK_CGR1120_20(config-if)#ipv6 enable
KJK_CGR1120_20(config-if)#ipv6 enable
KJK_CGR1120_20(config-if)#no shut
KJK_CGR1120_20(config-if)#no shut
KJK_CGR1120_20(config-if)#exit
配置Gi4/2;在CGM-SRV运行Cisco IOS和访客之间的连接:
```

```
KJK_CGR1120_20#conf t
Enter configuration commands, one per line. End with CNTL/Z.
KJK_CGR1120_20(config)#int gi4/2
KJK_CGR1120_20(config-if)#ip addr 192.168.101.1 255.255.255.0
KJK_CGR1120_20(config-if)#ip nat inside
KJK_CGR1120_20(config-if)#ip virtual-reassembly in
KJK_CGR1120_20(config-if)#duplex auto
KJK_CGR1120_20(config-if)#speed auto
KJK_CGR1120_20(config-if)#ipv6 enable
KJK_CGR1120_20(config-if)#ino shut
KJK_CGR1120_20(config-if)#no shut
KJK_CGR1120_20(config-if)#exit
配置提供您对CGR1000的访问作为NAT外部在Cisco IOS的接口支持:
```

KJK_CGR1120_20(config)#int gi2/1 KJK_CGR1120_20(config-if)#ip nat outside 设置主机OS和访客的DHCP :

KJK_CGR1120_20#conf t Enter configuration commands, one per line. End with CNTL/Z. KJK_CGR1120_20(config)#ip dhcp pool iox_host_pool KJK_CGR1120_20(dhcp-config)#network 192.168.100.0 255.255.255.0 KJK_CGR1120_20(dhcp-config)#default-router 192.168.100.1 KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#exit KJK_CGR1120_20(config)#ip dhcp pool iox_guest_pool KJK_CGR1120_20(dhcp-config)#network 192.168.101.1 255.255.255.0 KJK_CGR1120_20(dhcp-config)#default-router 192.168.101.1 KJK_CGR1120_20(dhcp-config)#default-router 192.168.101.1 KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#exit 在您启用DHCP后,您需要保证在CGM-SRV模块的主机OS拾起IP。在此阶段,最容易是重新启动 模块:

KJK_CGR1120_20#conf t

Enter configuration commands, one per line. End with CNTL/Z. KJK_CGR1120_20(config)#ip dhcp pool iox_host_pool KJK_CGR1120_20(dhcp-config)#network 192.168.100.0 255.255.255.0 KJK_CGR1120_20(dhcp-config)#default-router 192.168.100.1 KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#exit KJK_CGR1120_20(config)#ip dhcp pool iox_guest_pool KJK_CGR1120_20(dhcp-config)#network 192.168.101.1 255.255.255.0 KJK_CGR1120_20(dhcp-config)#default-router 192.168.101.1 KJK_CGR1120_20(dhcp-config)#default-router 192.168.101.1 KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#exit —旦模块回到联机 . 您能检查哪个IP地址给对它 :

KJK_CGR1120_20#conf t Enter configuration commands, one per line. End with CNTL/Z. KJK_CGR1120_20(config)#ip dhcp pool iox_host_pool KJK_CGR1120_20(dhcp-config)#network 192.168.100.0 255.255.255.0 KJK_CGR1120_20(dhcp-config)#default-router 192.168.100.1 KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#exit KJK_CGR1120_20(config)#ip dhcp pool iox_guest_pool KJK_CGR1120_20(dhcp-config)#network 192.168.101.1 255.255.255.0 KJK_CGR1120_20(dhcp-config)#default-router 192.168.101.1 KJK_CGR1120_20(dhcp-config)#default-router 192.168.101.1 KJK_CGR1120_20(dhcp-config)#default-router 192.168.101.1 KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#lease infinite KJK_CGR1120_20(dhcp-config)#exit 下配置步骤将完成NAT配置的其余和转送这些端口对主机OS的IP在模块的:

• 2222 - > 22 - >在模块:对主机OS的SSH访问

• 8443 - > CAF (当地干事和IOxclient API访问)

• 5900 - > VNC (对GUI的访问Windows VM的)

KJK_CGR1120_20#conf t

Enter configuration commands, one per line. End with CNTL/Z. KJK_CGR1120_20(config)#ip access-list standard IOX_NAT KJK_CGR1120_20(config-std-nacl)#permit 192.168.0.0 0.0.255.255 KJK_CGR1120_20(config-std-nacl)#exit KJK_CGR1120_20(config)#ip nat inside source list IOX_NAT interface Gi2/1 overload KJK_CGR1120_20(config)#ip nat inside source static tcp 192.168.100.3 8443 interface Gi2/1 8443 KJK_CGR1120_20(config)#ip nat inside source static tcp 192.168.100.3 22 interface Gi2/1 2222 KJK_CGR1120_20(config)#ip nat inside source static tcp 192.168.100.3 5900 interface Gi2/1 5900 一最后一步要求为了能访问当地干事和主机OS控制台。

添加一个用户有权限15 :

KJK_CGR1120_20#conf t Enter configuration commands, one per line. End with CNTL/Z. KJK_CGR1120_20(config)#username admin privilege 14 password cisco 这时,配置完成,并且您应该能验证和使用CGM-SRV模块IOX。

<u>验证</u>

使用本部分可确认配置能否正常运行。

从Cisco IOS,如果IOx正确地配置与这些命令,您能验证:

KJK_CGR1120_20#conf t

Enter configuration commands, one per line. End with CNTL/Z. **KJK_CGR1120_20(config)#username admin privilege 14 password cisco** 另一个方式验证,如果上述配置是成功的,将连接您的浏览器对当地干事。因为您已配置的 NAT,当地干事一定是可访问在https:// CGR1000>:8443 <outside IP。

如果所有进展顺利,如镜像所显示,您应该能发现当地干事登录提示:



	i For best results use a supported browser ▼	
	Cisco IOx Local Manager Version: 1.2.3.0 Username Password Log In	
© 2017 Cisco Systems, affiliates in the U.S. and	Inc. Cisco, Cisco Systems and Cisco logo are registered trademarks of Cisco Systems, Inc. and/or its certain other countries.	alladh cisco

您能登陆与如镜像所显示,您及早创建和访问当地干事的权限15用户:

U https://10.X	(.X. X.X: 8443/adr	nin				C Q	Search		☆	≜ ╄	î (🖆 👻	-
sco Cisco IO	ystems Ix Local Manage									Heli	o, admin I	Log Out	I
pplications	Cartridges	System Info	System Setting	м	iddleware Servic	e							
Host Info						▼ IP v4 Rout	ting						
Host na	me: KJK_CGR1	120_20		Refres	Stats	Dest	G/W	Mask	Flags	Met	ic	Int	
Upti	ime: 0 Day(s) a	nd 02:12:19				0.0.0.0	192.168.10.	0.0.0.0	UG	10		eth-mgn	nt
System ti	ime: 03/25/201	7 21:12:01 UTC(UTC	-0:00:00)			192.168.10.0	0.0.00	255.255.25	U	0		dpbr_n_	D
Software	ver: 1.2.3.0					192.168.11.0	0.0.0.0	255.255.25	U	0		dpbr_n_	1
System	ID: FOC					192.168.10	0.0.0.0	255.255.25	U	0		eth-mgn	nt
						192.168.12	0.0.00	255.255.25	U	0		virbr0	
 CPU & Proces 	sses	@ 0 MHz, 1 Cores;				▼ DNS and N	ITP Setting	s					
	(Famil	: 0, Model: 0, Stepp	ing: 0)			Domain:	1	Name Servers:		NTP Server	s:		
Utilization	: System: 0.29	6 User: 0.2%	I/O Wait: 0	.0% Id	e: 99.6%								
Load Average	: 1 min: 0.00	5 min: 0.00	15 min: 0	.00		▼ Logs							
Processes	: Total: 102	Stopped: 0	Zombie: 0	Ir	spect	Logging Mana	gement						
• Memory						Log name	Time	estamp	Log Size	2	View		
	Cine	Uned				caf.log	Sat I	Mar 25 21:10:5	11025		downl	oad	
DAM	Size	Used		Free		tpmc.log	Sat	Mar 25 21:10:5	778418		downl	oad	
KAM	: 3.8 GB	94.4 MB		3.7 GB		dmo.log	Sat	Mar 25 19:00:0	624		downl	oad	
SWAP	4.0 GB	U				messages	Sat I	Mar 25 19:02:0	82019		downl	oad	
						udhcpc-iox-hoo	oks.log Sat I	Mar 25 18:59:5	87		downl	oad	
✓ Storage						dmesg	Sat I	Mar 25 18:59:5	32959		downi	oad	
Device	Mount point		Size	Filesy	Space	lastlog	Sat	Mar 25 18:59:5	0		downl	oad	
	/		975.9	ext4	32 %	boot	Sat	Mar 25 19:00:0	3141		downl	oad	
/dev/vg-server	/mnt/data		40.2 GB	ext4	6 %	boot~	Sat I	Mar 25 18:59:5	0		downl	oad	
/dev/vg-server /dev/vg-server						wtmp	Sat I	Mar 25 19:00:0	2304		downl	bad	
/dev/vg-server /dev/vg-server													
/dev/vg-server /dev/vg-server • Serial Interfa	aces						ort Informa	tion					
/dev/vg-server /dev/vg-server • Serial Interfa Device Name	aces Device Id	Port	Available	Used	ру	 TechSuppo 	ore annorma						
/dev/vg-server /dev/vg-server Serial Interfa Device Name	aces Device Id	Port	Available	Used	р у	 TechSupport 	snapshot file r	name		File Size	Downlo	ad Delet	е
/dev/vg-server /dev/vg-server • Serial Interfa Device Name	aces Device Id	Port	Available	Used	ру	TechSupport Tech Support Generate snap	snapshot file r	name		File Size	Downlo	ad Delet	e
/dev/vg-server /dev/vg-server • Serial Interfa Device Name	Device Id	Port	Available	Used	ογ	TechSupport s Generate snap Core file name	snapshot file r	name		File Size	Downlo	ad Delet	e

<u>故障排除</u>

本部分提供了可用于对配置进行故障排除的信息。

为了排除故障CAF和在CGM-SRV模块运行的主机os,您能访问有使用的控制台这些命令:

您能及早登陆到与使用的主机OS权限15的凭证用户建立在Cisco IOS :

KJK_CGR1120_20#server-module 4 console Escape sequence: ctrl-shift-^ x, then disconnect command

MontaVista Carrier Grade Express Linux 2.0.0 CGM-SRV-64-4 /dev/console

CGM-SRV-64-4 login: **admin** Cisco IOS ® user password: CGM-SRV-64-4:~# 为了检查CAF和当地干事状态:

KJK_CGR1120_20#server-module 4 console Escape sequence: ctrl-shift-^ x, then disconnect command

MontaVista Carrier Grade Express Linux 2.0.0 CGM-SRV-64-4 /dev/console

CGM-SRV-64-4 login: **admin** Cisco IOS ® user password: CGM-SRV-64-4:~# CAF的日志可以在/var/log/caf.log找到。