**科大讯飞生产云平台升级实施方案**

* 1. 升级实施目标
     1. BingoCloud升级

科大讯飞生产云平台此次需要完成从BingoCloudV6.2.1版本至BingoCloudV7.0.23版本的升级。

* 1. 升级实施影响范围及时间
     1. 云平台在升级的实施过程中的影响如下：

1. 升级过程中，管控平台不能访问，不能对虚拟机进行开关机、挂载存储等操作，但不影响已经在运行状态的实例运行。
2. 基础云平台的升级过程，分为1个部分：
   1. 虚拟化云平台BCC升级
3. 升级耗时

每个平台升级耗时60分钟左右，并且需要预留60分钟进行回退操作，所以整个升级操作需要2小时。

* 1. 升级实施计划及步骤
     1. 云平台升级
        1. 升级步骤

1. 升级包上传，ssh登录到云主控制器

mkdir -pv /bcshare/tool/

将升级包bingocloud-v7.0.23.1808130812.el7.tar.gz上传至该目录下

1. 停止所有云平台服务，运行命令:

/opt/bingocloud/latest/output/bin/bingocloud stop all

1. 备份数据库，运行命令:

mkdir -pv /bcshare/mysql\_bak

cd /bcshare/mysql\_bak

for i in `mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 -e "show databases;"|grep bingocloud`;do echo mysqldump -h172.16.120.9 -ubingocloud -ppass@bingocloud1 $i \> $i.sql;done

1. 备份程序，主云控上运行命令：

/opt/bingocloud/latest/output/bin/bingocloud run all "cp -r /opt/bingocloud/latest/ /opt/bingocloud/v6.2.1"

/opt/bingocloud/latest/output/bin/bingocloud run all "rm -rf /opt/bingocloud/latest/output/lib/"

/opt/bingocloud/latest/output/bin/bingocloud run all "tar -zxf /bcshare/tool/ bingocloud-v7.0.23.1808130812.el7.tar.gz -C /opt/bingocloud/latest"

/opt/bingocloud/latest/output/bin/bingocloud run all /opt/bingocloud/latest/output/conf

1. 更新版本至v7.0.0

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.0/

for i in `ls|grep sql|sort -n`;do echo mysql -ubingocloud -h172.0.0.5 -ppass@bingocloud1 \<$i;done

***升级完数据库之后，在主CLC上运行***

/opt/bingocloud/latest/output/bin/bingocloud client

upgrade\_to\_v630:update\_inst\_vol().

upgrade\_to\_v630:update\_lvs\_info().

q().

***加载nbd模块和安装ntfs***

/opt/bingocloud/latest/output/bin/bingocloud run all "cp /opt/bingocloud/latest/output/tools/install/res/rpm-el7/tools/`uname -r`/nbd.ko /lib/modules/`uname -r`/kernel/drivers/block/."

/opt/bingocloud/latest/output/bin/bingocloud run all "depmod /lib/modules/3.10.0-229.el7.x86\_64/kernel/drivers/block/nbd.ko;modprobe nbd"

/opt/bingocloud/latest/output/bin/bingocloud run all "rpm -Uvh /opt/bingocloud/latest/output/tools/install/res/rpm-el7/ntfs/ntfs-3g-2016.2.22-1.el7.x86\_64.rpm /opt/bingocloud/latest/output/tools/install/res/rpm-el7/ntfs/ntfsprogs-2016.2.22-1.el7.x86\_64.rpm"

***更新vm.temlate文件***

/opt/bingocloud/latest/output/bin/bingocloud run all "cp /opt/bingocloud/latest/output/config-templates/vm.template.tpl /opt/bingocloud/latest/output/config/vm.template"

***更新VIP状态信息***

/opt/bingocloud/latest/output/bin/bingocloud client

upgrade\_to\_v700:update\_vip\_status().

q().

***停止meteweb服务***

/opt/bingocloud/latest/output/bin/bingocloud run all "/opt/bingocloud/latest/output/tools/meta-ngx.sh stop"

1. 更新版本至v7.0.4

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.4

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

1. 更新版本至v7.0.6

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.6

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

1. 更新版本至v7.0.8

***更新blockDeviceMapping信息***

/opt/bingocloud/latest/output/bin/bingocloud client

upgrade\_to\_v630:refresh\_inst\_blockDeviceMapping\_for\_v700().

q().

1. 更新版本至v7.0.10

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.10

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

***更新libvirt文件***

/opt/bingocloud/latest/output/bin/bingocloud run all "find /opt/bingocloud/run/instance/ -name libvirt.xml | xargs sed -i $'s/<source file=\"\"\/>/tocol=\'\' name=\'\'><host name=\'\' port=\'\'\/><\/source>/g'"

1. 更新版本至v7.0.11

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.11

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

1. 更新版本至v7.0.12

系统盘的存储卷，没有计算使用计量

/opt/bingocloud/latest/output/bin/bingocloud client

cloud\_util:update\_root\_volume\_usage().

q().

1. 更新版本至v7.0.13

更新实例配置

/opt/bingocloud/latest/output/bin/bingocloud client

cloud\_tools:save\_instance\_config().

cloud\_tools:makesure\_lxc\_nif\_cfg().

l(cloud\_tools).

cloud\_tools:update\_instance\_config().

q().

1. 更新版本至v7.0.14

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.14

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

1. 更新版本至v7.0.16

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.16

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

1. 更新版本至v7.0.18

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.18

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

1. 更新版本至v7.0.19

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.19

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

1. 更新版本至v7.0.18

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.14

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

1. 更新版本至v7.0.22

***执行SQL更新***

cd /opt/bingocloud/latest/upgrade-to-v7.0.22

for i in `ls|grep sql `;do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \<$i;done

1. 升级完成，启动程序

/opt/bingocloud/latest/output/bin/bingocloud run all /opt/bingocloud/latest/output/conf

/opt/bingocloud/latest/output/bin/bingocloud stop all

/opt/bingocloud/latest/output/bin/bingocloud start all

* + - 1. 升级失败回退方案及步骤

1. 停止云服务

/opt/bingocloud/latest/output/bin/bingocloud stop all

还原数据库

删除数据库

for i in `mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 -e "show databases;" | grep bingocloud` ; do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 -e \"drop database $i\;\" ; done

导入旧数据库

创建

for i in ` ls -l /bcshare/mysql\_bak |grep bingo|awk '{print $9}'|awk -F . '{print $1}' ` ; do echo mysql -ubingocloud -h172.16.120.9 -ppass@bingocloud1 -e \"create database $i\" ;done

导入

for i in `ls /bcshare/mysql\_bak` ; do a=$i;a=${a%%.sql};echo mysql $a -ubingocloud -h172.16.120.9 -ppass@bingocloud1 \< /bcshare/mysql\_bak/$i ;done

1. 还原云程序

cd /opt/bingocloud/latest/

rm -rf \*

cp -r /opt/bingocloud/v6.2.1/\* /opt/bingocloud/latest/

/opt/bingocloud/latest/output/bin/bingocloud run others rm -rf /opt/bingocloud/latest/\*

/opt/bingocloud/latest/output/bin/bingocloud run others cp -r /opt/bingocloud/v6.2.1/\* /opt/bingocloud/latest/

/opt/bingocloud/latest/output/bin/bingocloud run all /opt/bingocloud/latest/output/conf

1. 启动云服务

/opt/bingocloud/latest/output/bin/bingocloud start all

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* 1. 保障团队

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