# 通过手机远程控制内网主机的解决方案

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| --- | --- | --- | --- |
| 版本 | 日期 | 修改者 | 备注 |
| V0.1 | 2017/8/17 | Suffic | 创建文档 |
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## 摘要

现在社会，手机越来越普及，网速越来越快，就连万物互联的物联网也在不断发展。人们在外出的时候，难免会有需要访问家中或公司里电脑的需求。为此，经过学习研究，我提出一种通过手机远程控制内网主机的解决方案。本方案不仅限于手机，理论上，只要能够连网，并支持HTML5浏览器的设备，均能实现远程控制内网主机的目的。

方案的基本原理是，内网主机开启远程控制服务，并通过ngrok进行tcp、http、telnet等协议转发，穿透到外网，提供可以在公网访问的域名(主机名)。在外网搭建guacamole服务器，并安装rdp、vnc、telnet、ssh协议，并配置访问内网的主机名和端口号。终端设备(手机、iPad，电脑等)通过浏览器访问guacamole服务器，并选择相应的协议，来登录远程设备。

## 申请AWS公网IP的服务器

亚马逊提供可以使用一年的免费服务器，作为开发环境，足够用了。

1. 创建亚马逊账号
2. 申请免费服务器
3. 创建Ubuntu实例
4. 添加访问策略
5. 关联弹性ip地址

## 通过SecureCRT登录远程服务器

创建连接

设置远程主机地址、登录用户名，添加密钥

中文乱码问题：设置为UTF8编码

设置界面外观样式

创建Ubuntu超级用户root的密码sudo password

## 域名注册

<https://my.freenom.com/clientarea.php?action=domaindetails>

qq:suffic.tk

suffic.123

国内域名解析

[www.dnspod.cn](http://www.dnspod.cn)

## 内网穿透

CentOS 7 搭建ngrok服务器，从此不再需要花生壳

<https://www.ubock.com/article/31>

<http://lzxz1234.github.io/linux/2016/10/11/linux-ngrok-compile-deploy.html>

## 搭建 ngrok 服务实现内网穿透

<https://imququ.com/post/self-hosted-ngrokd.html>

### 编译 ngrok

我的 VPS 系统是 ubuntu1~16.04.4，首先装必要的工具：

sudo apt-get install build-essential golang mercurial git

获取 ngrok 源码：

git clone https://github.com/inconshreveable/ngrok.git ngrok

### 请使用下面的地址，修复了无法访问的包地址

git clone https://github.com/tutumcloud/ngrok.git ngrok

cd ngrok

生成并替换源码里默认的证书，注意域名修改为你自己的。（之后编译出来的服务端客户端会基于这个证书来加密通讯，保证了安全性）

NGROK\_DOMAIN="suffic.tk"

openssl genrsa -out base.key 2048

openssl req -new -x509 -nodes -key base.key -days 10000 -subj "/CN=$NGROK\_DOMAIN" -out base.pem

openssl genrsa -out server.key 2048

openssl req -new -key server.key -subj "/CN=$NGROK\_DOMAIN" -out server.csr

openssl x509 -req -in server.csr -CA base.pem -CAkey base.key -CAcreateserial -days 10000 -out server.crt

cp base.pem assets/client/tls/ngrokroot.crt

开始编译：

sudo make release-server release-client

如果一切正常，ngrok/bin 目录下应该有 ngrok、ngrokd 两个可执行文件。

### 服务端

前面生成的 ngrokd 就是服务端程序了，指定证书、域名和端口启动它（证书就是前面生成的，注意修改域名）：

sudo ./bin/ngrokd -tlsKey=server.key -tlsCrt=server.crt -domain="suffic.tk" -httpAddr=":8081" -httpsAddr=":8082"

到这一步，ngrok 服务已经跑起来了，可以通过屏幕上显示的日志查看更多信息。httpAddr、httpsAddr 分别是 ngrok 用来转发 http、https 服务的端口，可以随意指定。ngrokd 还会开一个 4443 端口用来跟客户端通讯（可通过 -tunnelAddr=":xxx" 指定），如果你配置了 iptables 规则，需要放行这三个端口上的 TCP 协议。

现在，通过 <http://suffic.tk:8081> 和 <https://suffic.tk:8082> 就可以访问到 ngrok 提供的转发服务。为了使用方便，建议把域名泛解析到 VPS 上，这样能方便地使用不同子域转发不同的本地服务。我给suffic.tk 做了泛解析，随便访问一个子域，如：<http://pub.suffic.tk:8081>，可以看到这样一行提示：

Tunnel pub.suffic.tk:8081 not found

这说明万事俱备，只差客户端来连了。

### 客户端

如果要把 linux 上的服务映射出去，客户端就是前面生成的 ngrok 文件。但我用的是 Mac，需要指定环境变量再编一次：

sudo GOOS=darwin GOARCH=amd64 make release-server release-client

这样在 ngrok/bin 目录下会多出来一个 darwin\_amd64 目录，这里的 ngrok 文件就可以拷到 Mac 系统用了。

写一个简单的配置文件，随意命名如 ngrok.cfg：

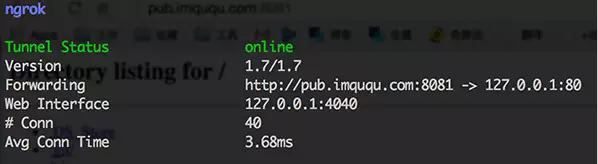
server\_addr: suffic.tk:4443

trust\_host\_root\_certs: false

指定子域、要转发的协议和端口，以及配置文件，运行客户端：

./ngrok -subdomain pub -proto=http -config=ngrok.cfg 80

不出意外可以看到这样的界面，这说明已经成功连上远端服务了：



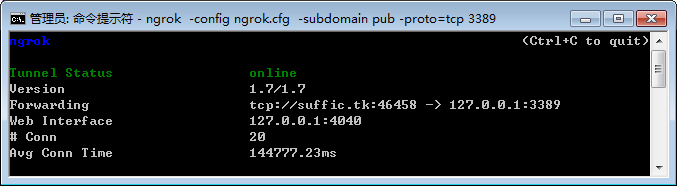
现在再访问 <http://pub.suffic.tk:8081>，访问到的已经是我本机 80 端口上的服务了。

可以在ubuntu上面，编译Windows版本的客户端ngrok.exe

在命令中执行：

ngrok.exe –config ngrok.cfg –subdomain t –proto=tcp 3389

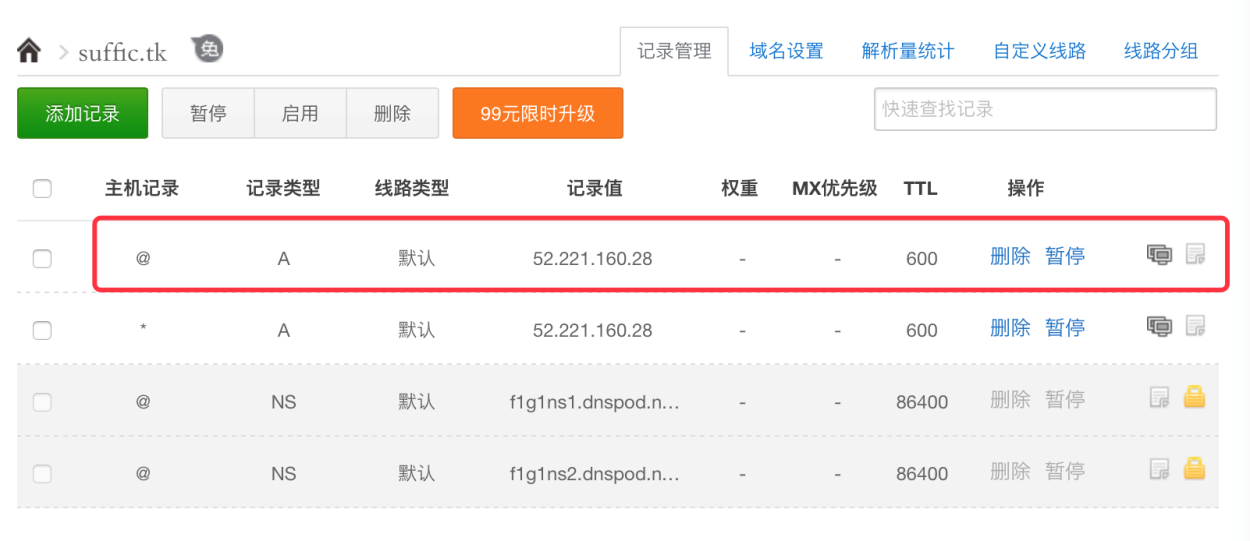
如果出现以下窗口，表示转发正常。



这样，访问tcp连接t.suffic.tk,就会被转发到本机的3389端口，相当于访问Windows的远程rdp服务。

如果出现下面这个问题，说明主机的域名解析不对，没有设置suffic.tk的A记录。在dnspod网站上重新设置域名解析即可。

Tunnel Status                 reconnecting   
Version                       1.7/   
Web Interface                 127.0.0.1:4040   
# Conn                        0   
Avg Conn Time                 0.00ms



参考链接：

<https://yq.aliyun.com/articles/11852>

### 管理界面

上面那张 ngrok 客户端运行界面截图中，有一个 Web Interface 地址，这是 ngrok 提供的监控界面。通过这个界面可以看到远端转发过来的 http 详情，包括完整的 request/response 信息，非常方便。

实际上，由于 ngrok 可以转发 TCP，所以还有很多玩法，原理都一样，这里就不多写了。

本文链接：<https://suffic.tk/post/self-hosted-ngrokd.html>

## 搭建Guacamole服务器运行环境

Guacamole: A clientless RDP gateway

<http://www.davewentzel.com/content/guacamole-clientless-rdp-gateway>

参考链接：

<https://www.linuxhelp.com/how-to-set-up-guacamole-tool-to-access-remote-linuxwindows-machines/>

### To Set Up Web-Based Guacamole Tool to Access Remote Linux/Windows Machines

Guacamole is an open source Clientless Remote Desktop solution, which can supports standard protocols like VNC, RDP and SSH to connect the client machines via a HTML5 supported Web browser. The procedure to set up Guacamole Tool to Access Remote Linux/Windows Machines is explained in this article.

#### Requirements

|  |  |  |
| --- | --- | --- |
| Guacamole Server | Ubuntu 15.10 | IP 192.168.5.222 |
| RDP Client | Windows 7 | IP 192.168.5.17 |
| SSH Client | CentOS 7 | IP 192.168.5.88 |

#### To install Guacamole

Enable the firewall and ports required for guacamole in Debian based Distributions. If you are using Redhat Based system, allow the firewall through “firewall-cmd” command or “iptables” command.

root@linuxhelp:~# ufw enable

Firewall is active and enable on system startup

root@linuxhelp:~# ufw allow 22

root@linuxhelp:~# ufw allow 8080

Update your repositories and then install the required packages for guacamole.

root@linuxhelp:~# apt-get update

root@linuxhelp:~# apt-get install fail2ban build-essential htop libcairo2-dev libjpeg62-dev libpng12-dev libossp-uuid-dev tomcat7 –y

root@linuxhelp:~# apt-get install libfreerdp-dev libpango1.0-dev libssh2-1-dev libtelnet-dev libvncserver-dev libpulse-dev libssl-dev libvorbis-dev –y

To Download guacamole server package run the following command.

root@linuxhelp:~# wget <http://sourceforge.net/projects/guacamole/files/current/source/guacamole-server-0.9.8.tar.gz>

After downloading the package, extract it by using the following command.

root@linuxhelp:~# tar -xzf guacamole-server-0.9.8.tar.gz

Go to the extracted directory and run the below command.

root@linuxhelp:~# cd guacamole-server-0.9.8/

root@linuxhelp:~/guacamole-server-0.9.8# ./configure --with-init-dir=/etc/init.d && make && make install

Update the library cache and scripts to start it on bootup.

root@linuxhelp:~/guacamole-server-0.9.8# ldconfig && update-rc.d guacd defaults

Create guacamole configuration files as follows.

root@linuxhelp:~/guacamole-server-0.9.8# mkdir /etc/guacamole

root@linuxhelp:~/guacamole-server-0.9.8# vim /etc/guacamole/guacamole.properties

Now add the entry in the guacamole’s main configuration.

# Hostname and port of guacamole proxy

guacd-hostname: localhost

guacd-port: 4822

# Location to read extra .jar's from

lib-directory: /var/lib/tomcat7/webapps/guacamole/WEB-INF/classes

# Authentication provider class

auth-provider: net.sourceforge.guacamole.net.basic.BasicFileAuthenticationProvider

# Properties used by BasicFileAuthenticationProvider

basic-user-mapping: /etc/guacamole/user-mapping.xml

Create “user-mapping.xml” file to create username, password and remote connections for guacamole. Here, we are going to connect to a windows machine using “RDP” Remote Desktop Protocol and a linux machine using “SSH” Protocol.

root@linuxhelp:~/guacamole-server-0.9.8# vim /etc/guacamole/user-mapping.xml

Now add the below entry

<user-mapping>

<authorize username="linuxhelp" password="password">

<connection name="RDP Connection">

<protocol>rdp</protocol>

<param name="hostname">192.168.5.17</param>

<param name="port">3389</param>

</connection>

<connection name="SSH Connection">

<protocol>ssh</protocol>

<param name="hostname">192.168.5.88</param>

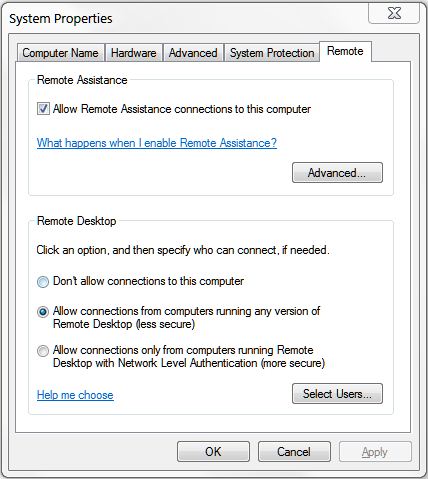
<param name="port">22</param>

</connection>

</authorize>

</user-mapping>

Note:If you are connecting to windows client make sure that the client machine allows remote connection.



Now update the user authentication files to tomcat by creating a soft link.

root@linuxhelp:~/guacamole-server-0.9.8# mkdir /usr/share/tomcat7/.guacamole

root@linuxhelp:~/guacamole-server-0.9.8# ln -s /etc/guacamole/guacamole.properties /usr/share/tomcat7/.guacamole

root@linuxhelp:~# cd

root@linuxhelp:~# wget http://sourceforge.net/projects/guacamole/files/current/binary/guacamole-0.9.8.war

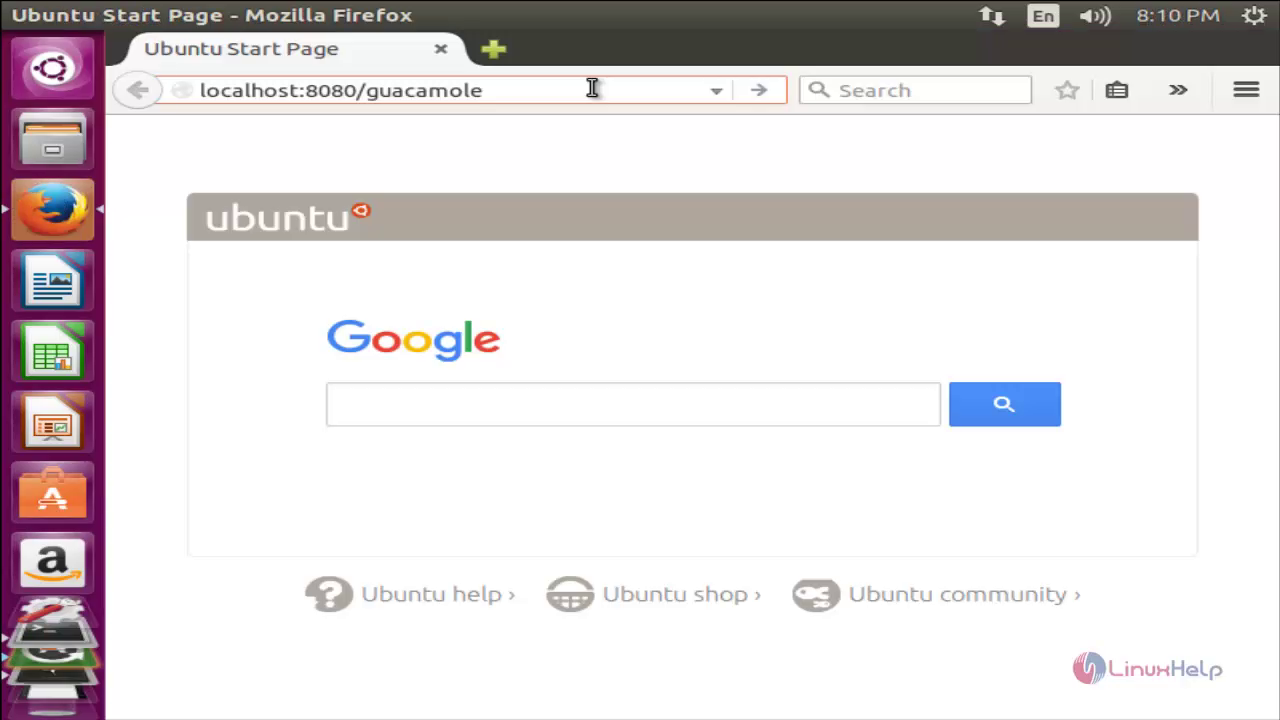
root@linuxhelp:~# mv guacamole-0.9.8.war /var/lib/tomcat7/webapps/guacamole.war

root@linuxhelp:~# mv guacamole-0.9.8.war /var/lib/tomcat7/webapps/guacamole.war

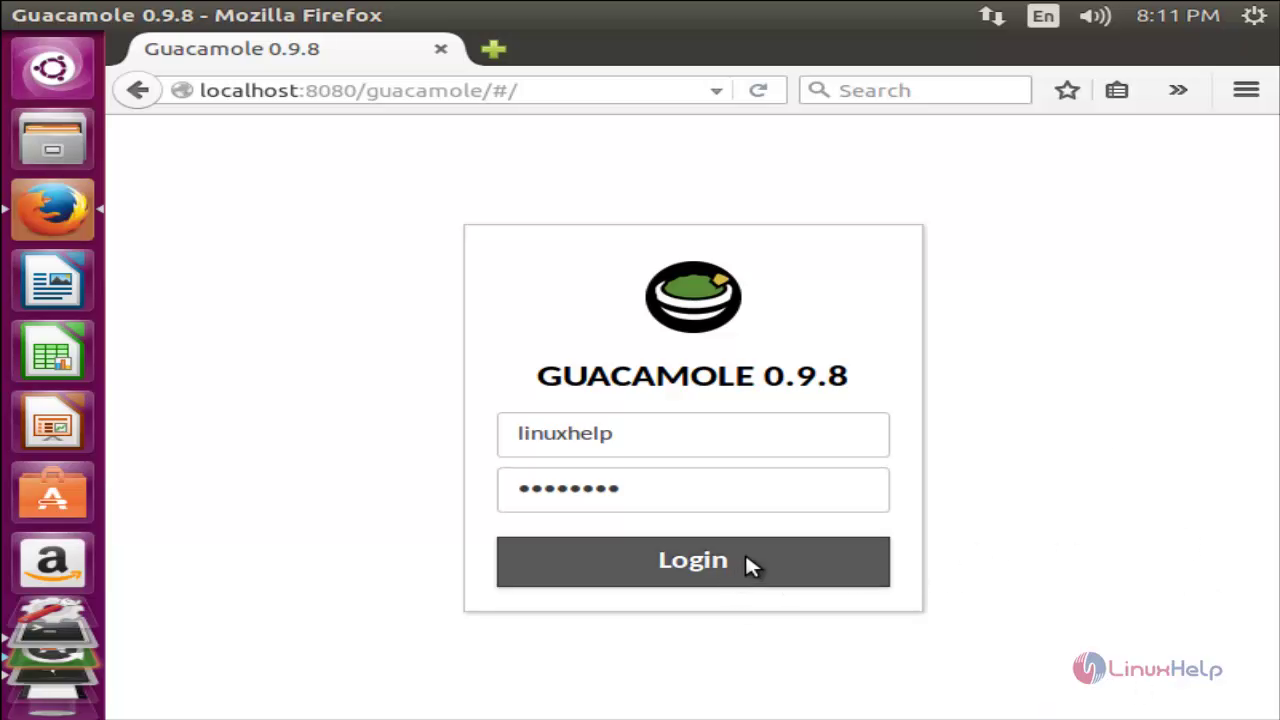
Now start the services for tomcat and guacamole.

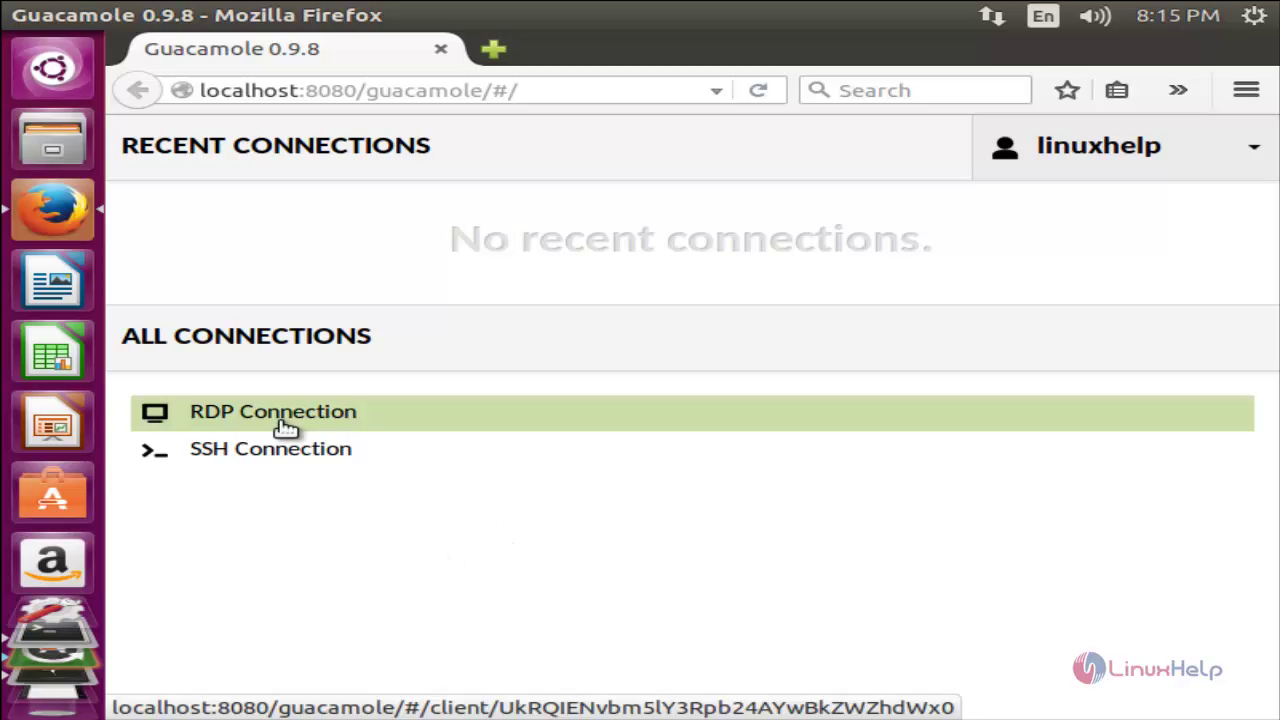
root@linuxhelp:~# service guacd start && service tomcat7 start

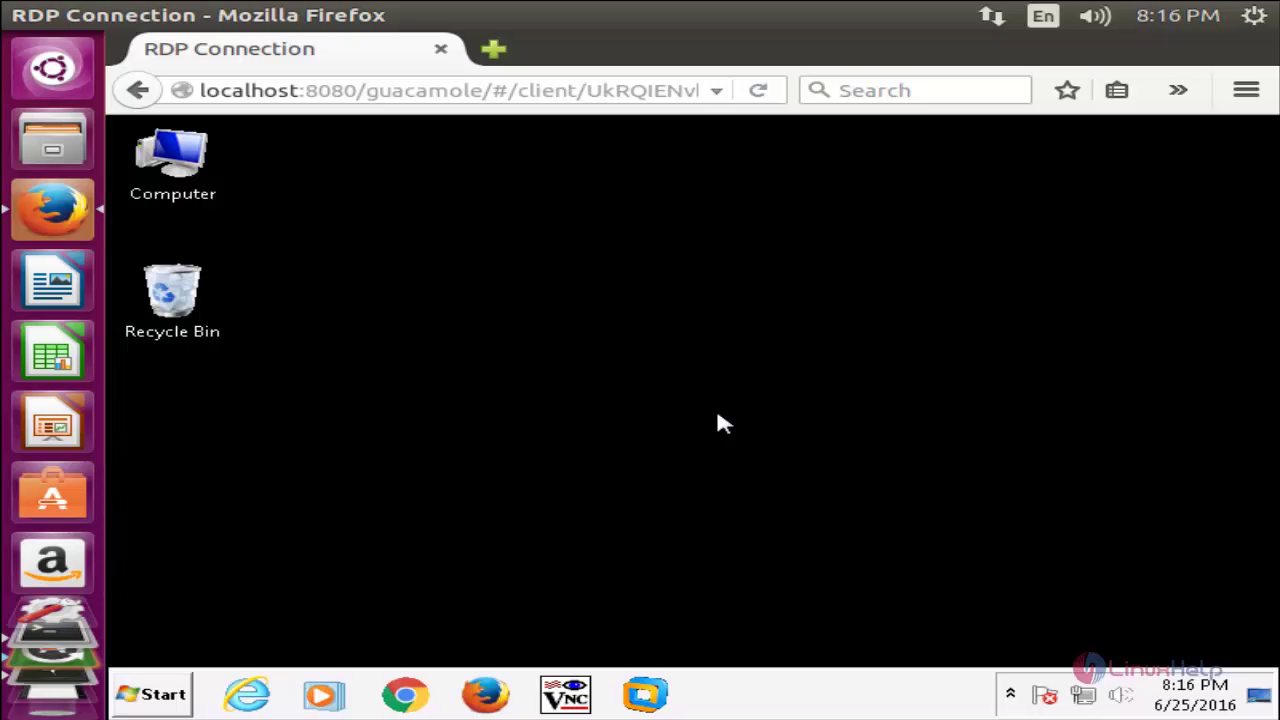
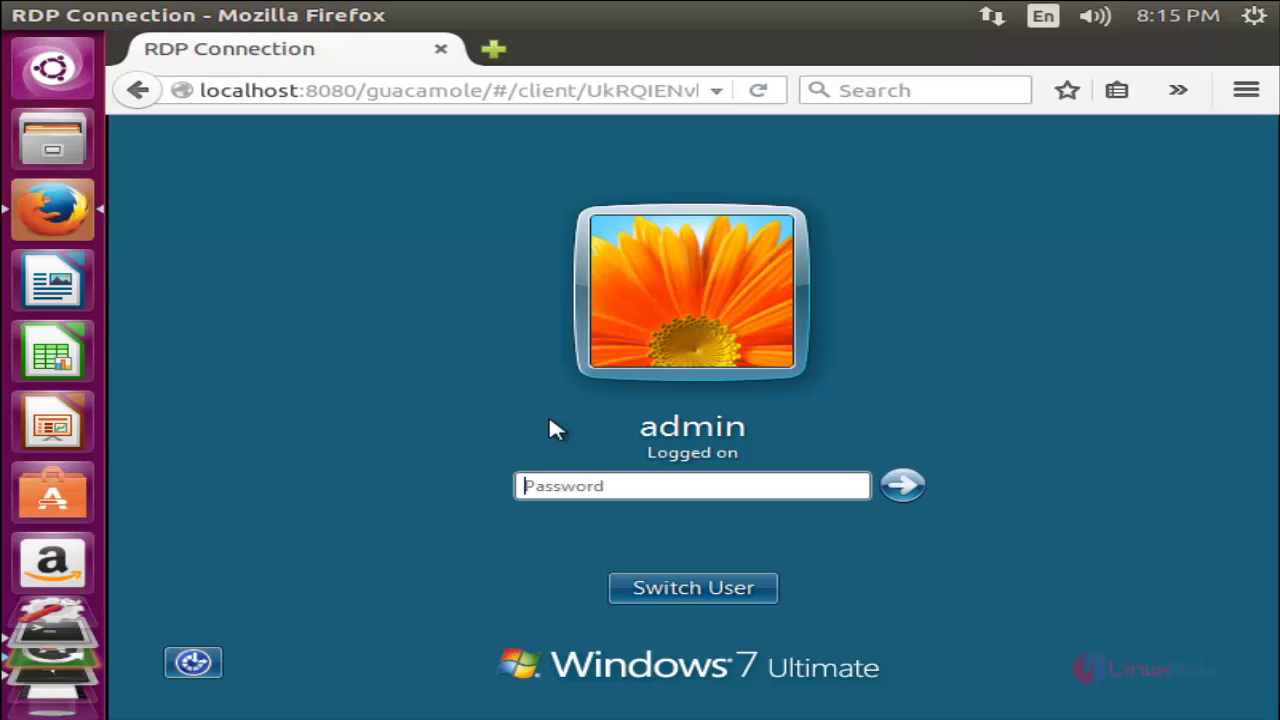
Now open your browser and point to <http://localhost:8080/guacamole>



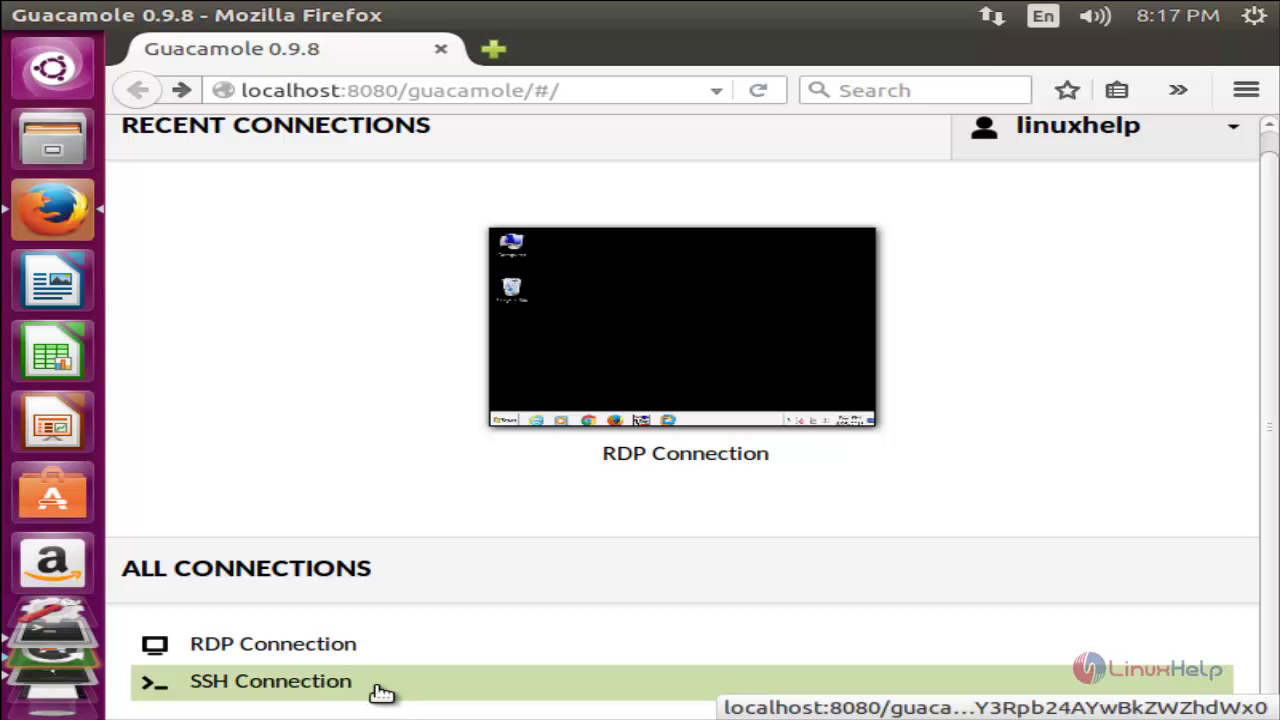
Login with the guacamole username and password.

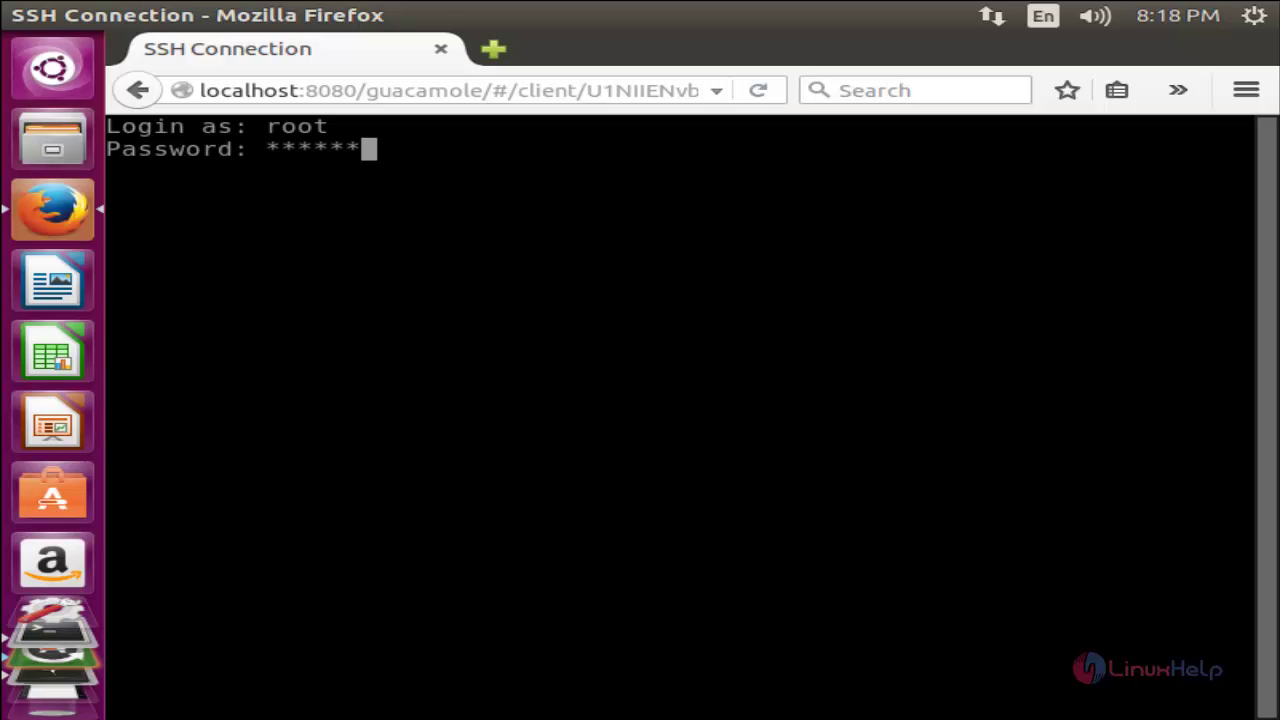


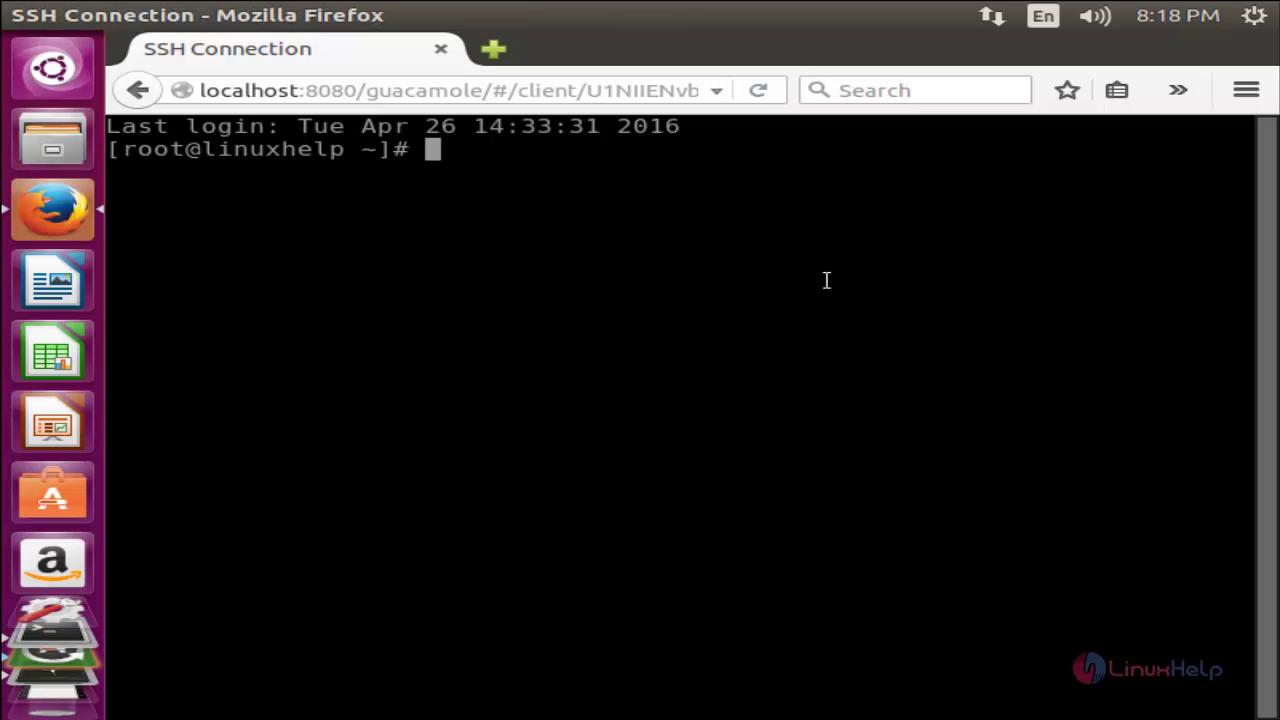
You can view the connections, that we have created in the configuration file. Let’s connect to windows client by clicking RDP connection.



Click on SSH connection for linux clients.

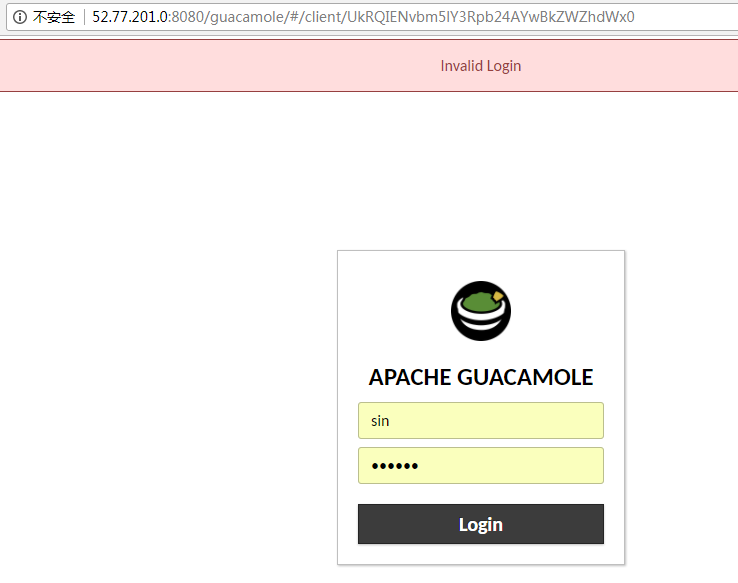






### 问题一：

05:33:32.644 [http-nio-8080-exec-5] WARN o.a.g.r.auth.AuthenticationService - Authentication attempt from 180.168.197.84 for user "sin" failed.



1.设置GUACAMOLE\_HOME，在.bash\_profile中，添加下面两行：

GUACAMOLE\_HOME=/etc/guacamole/

export GUACAMOLE\_HOME

保存后，执行：source .bash\_profile

2.需要在/etc/guacamole/guacamole.properties文件中，添加如下内容：

# Hostname and port of guacamole proxy

guacd-hostname: localhost

guacd-port: 4822

# Location to read extra .jar's from

lib-directory: /var/lib/tomcat8/webapps/guacamole/WEB-INF/classes

# Authentication provider class

auth-provider: net.sourceforge.guacamole.net.basic.BasicFileAuthenticationProvider

# Properties used by BasicFileAuthenticationProvider

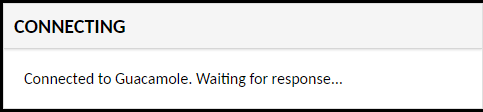
basic-user-mapping: /etc/guacamole/user-mapping.xml

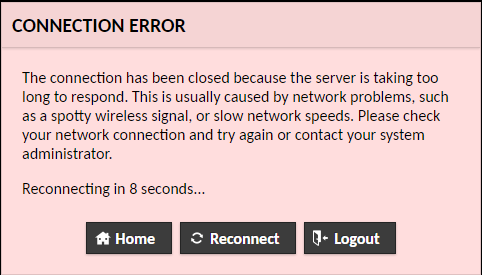
3.保存后，重新启动tomcat8和guacd:

/etc/init.d/tomcat8 restart

/etc/init.d/guacd restart

### 问题二：





日志：tail -f /var/log/messages

Aug 10 07:43:15 ip-172-31-20-1 guacd[15771]: Creating new client for protocol "rdp"

Aug 10 07:43:15 ip-172-31-20-1 guacd[15771]: Connection ID is "$5e02731c-2385-4664-8c60-816d2bc01666"

Aug 10 07:43:15 ip-172-31-20-1 guacd[16807]: Support for protocol "rdp" is not installed

Aug 10 07:43:15 ip-172-31-20-1 guacd[15771]: Connection "$5e02731c-2385-4664-8c60-816d2bc01666" removed.

kaz commented on 2017-02-12 13:05

FreeRDP is not working again. CPPFLAGS="-Wno-error=pedantic -Wno-deprecated-declarations" are as per recommendation.

figue commented on 2016-11-24 15:06

@Black\_Codec build is broken using freerdp-1\_1.2.0\_beta1+android9-1-x86\_64.pkg.tar.xz because readdir\_r is deprecated in latest glibc (the function is in src/protocols/rdp/rdp\_fs.c).  
A quick workaround is to set -Wno-deprecated-declarations in CPPFLAGS.  
  
CPPFLAGS="-Wno-error=pedantic -Wno-deprecated-declarations"

原因是缺少支持的库



教训：前面省事，后面就不省事。欲速则不达。

安装完用到的协议后，再配置、编译、安装guacamolde-server

./configure --with-init-dir=/etc/init.d && make && make install

### 问题三

查看网页访问日志：

tail -f /var/log/messages

启动vnc服务器

/etc/sysconfig/vncserver &

[ec2-user@ip-172-31-20-1 ~]$ vncserver

You will require a password to access your desktops.

Password:123456

Verify:123456

xauth: creating new authority file /home/ec2-user/.Xauthority

New 'ip-172-31-20-1:1 (ec2-user)' desktop is ip-172-31-20-1:1

启动服务器

/etc/guacamole/run.sh

### 问题四

安装CMAKE

下载源码：

git clone https://github.com/Kitware/CMake.git

编译、安装

./bootstrap && make && make install

### 问题五、替换yum源

首先备份/etc/yum.repos.d/CentOS-Base.repo

mv /etc/yum.repos.d/CentOS-Base.repo /etc/yum.repos.d/CentOS-Base.repo.backup

wget <http://mirrors.163.com/.help/CentOS5-Base-163.repo>

yum clean all

yum makecache

报错：

1.<http://mirrors.163.com/centos/latest/os/x86_64/repodata/repomd.xml>

将CentOS5-Base-163.repo 中的$releasever替换为系统的版本号数字7即可。

2.[root@bd21 yum.repos.d]# yum makecache

Loaded plugins: fastestmirror

http://mirrors.163.com/centos/7/os/x86\_64/repodata/repomd.xml: [Errno 14] curl#6 - "Could not resolve host: mirrors.163.com; Unknown error"

Trying other mirror.

One of the configured repositories failed (CentOS-7 - Base - 163.com),

and yum doesn't have enough cached data to continue. At this point the only

safe thing yum can do is fail. There are a few ways to work "fix" this:

1. Contact the upstream for the repository and get them to fix the problem.

2. Reconfigure the baseurl/etc. for the repository, to point to a working

upstream. This is most often useful if you are using a newer

distribution release than is supported by the repository (and the

packages for the previous distribution release still work).

3. Disable the repository, so yum won't use it by default. Yum will then

just ignore the repository until you permanently enable it again or use

--enablerepo for temporary usage:

yum-config-manager --disable base

4. Configure the failing repository to be skipped, if it is unavailable.

Note that yum will try to contact the repo. when it runs most commands,

so will have to try and fail each time (and thus. yum will be be much

slower). If it is a very temporary problem though, this is often a nice

compromise:

yum-config-manager --save --setopt=base.skip\_if\_unavailable=true

failure: repodata/repomd.xml from base: [Errno 256] No more mirrors to try.

http://mirrors.163.com/centos/7/os/x86\_64/repodata/repomd.xml: [Errno 14] curl#6 - "Could not resolve host: mirrors.163.com; Unknown error"

[root@bd21 yum.repos.d]#

修改方法：

[root@bd21 yum.repos.d]# vi /etc/resolv.conf

nameserver 8.8.8.8

nameserver 218.85.157.99

search localdomain

~

然后再执行

yum clean all

yum makecache

### 问题六、安装库

Library status:

freerdp ............. yes

pango ............... yes

libavcodec .......... no

libavutil ........... no

libssh2 ............. yes

libssl .............. yes

libswscale .......... no

libtelnet ........... no

libVNCServer ........ yes

libvorbis ........... yes

libpulse ............ no

libwebp ............. yes

Protocol support:

RDP ....... yes

SSH ....... yes

Telnet .... no

VNC ....... yes

Services / tools:

guacd ...... yes

guacenc .... no

ffmpeg的安装方法：

https://trac.ffmpeg.org/wiki/CompilationGuide/Centos

cd ~/ffmpeg\_sources

curl -O http://ffmpeg.org/releases/ffmpeg-snapshot.tar.bz2

tar xjvf ffmpeg-snapshot.tar.bz2

cd ffmpeg

PKG\_CONFIG\_PATH="$HOME/ffmpeg\_build/lib/pkgconfig" ./configure --prefix="$HOME/ffmpeg\_build" \

--extra-cflags="-I$HOME/ffmpeg\_build/include" --extra-ldflags="-L$HOME/ffmpeg\_build/lib -ldl" \

--bindir="$HOME/bin" --pkg-config-flags="--static" \

--enable-gpl \

--enable-libfdk\_aac \

--enable-libfreetype \

--enable-libmp3lame \

--enable-libopus \

--enable-libvorbis \

--enable-libvpx \

--enable-libx264 \

--enable-libx265 \

--enable-nonfree

make

make install

hash -r

### 问题七、安装nasm

wget <http://www.nasm.us/pub/nasm/releasebuilds/2.13.01/nasm-2.13.01.tar.gz>

tar xzvf nasm-2.13.01.tar.gz

cd nasm-2.13.01

./configure

Make

Make install

### 问题八

Aug 11 10:47:55 ip-172-31-20-1 guacd[7229]: Creating new client for protocol "rdp"

Aug 11 10:47:55 ip-172-31-20-1 guacd[7229]: Connection ID is "$7508d2d1-74bf-42c6-bfa5-ab0f02892e8d"

Aug 11 10:47:55 ip-172-31-20-1 guacd[7366]: No security mode specified. Defaulting to RDP.

Aug 11 10:47:55 ip-172-31-20-1 guacd[7366]: Resize method: none

Aug 11 10:47:55 ip-172-31-20-1 guacd[7366]: User "@300d1b43-8c87-47fe-ae7d-cbd08e9e4a6e" joined connection "$7508d2d1-74bf-42c6-bfa5-ab0f02892e8d" (1 users now present)

Aug 11 10:47:55 ip-172-31-20-1 guacd[7366]: Loading keymap "base"

Aug 11 10:47:55 ip-172-31-20-1 guacd[7366]: Loading keymap "en-us-qwerty"

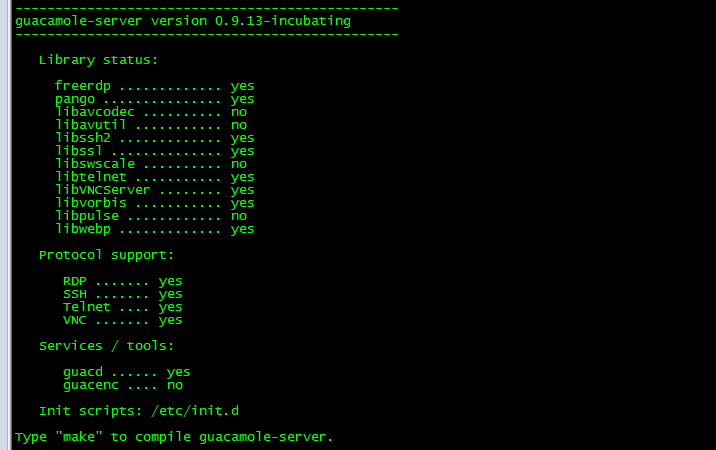
Aug 11 10:47:55 ip-172-31-20-1 guacd[7366]: Failed to load cliprdr plugin. Clipboard will not work.

Aug 11 10:47:55 ip-172-31-20-1 guacd[7366]: Failed to load guacdr plugin. Drive redirection and printing will not work. Sound MAY not work.

Aug 11 10:47:55 ip-172-31-20-1 guacd[7366]: Failed to load guacsnd alongside guacdr plugin. Sound will not work. Drive redirection and printing MAY not work.

### 问题九

为什么make install安装的libavcodec/ libavutil/ libswscale/ libpulse ， guacamole的./configure中，仍然显示为no



### Ubuntu 搭建guacamole

Alternatively you can edit xstartup file located in your home folder by running sudo vi .vnc/xstartup from the terminal.

#!/bin/sh

# Uncomment the following two lines for normal desktop:

unset SESSION\_MANAGER

#exec /etc/X11/xinit/xinitrc

gnome-session --session=gnome-classic &

[ -x /etc/vnc/xstartup ] && exec /etc/vnc/xstartup

[ -r $HOME/.Xresources ] && xrdb $HOME/.Xresources

xsetroot -solid grey

vncconfig -iconic &

#x-terminal-emulator -geometry 1280x1024+10+10 -ls -title "$VNCDESKTOP Desktop" &

#x-window-manager &

ubuntu，默认没有安装automake等工具，按提示逐一进行了安装，遇到如下这个错误时，表示libtool没有安装：

$ sh first\_once.sh

Convert ltmain.sh from the format of DOS to UNIX OK.

Convert configure.ac.in from the format of DOS to UNIX OK.

Convert Makefile.am from the format of DOS to UNIX OK.

Convert Make.rules.in from the format of DOS to UNIX OK.

configure.ac:64: error: possibly undefined macro: AC\_PROG\_LIBTOOL

If this token and others are legitimate, please use m4\_pattern\_allow.

See the Autoconf documentation.

autoconf ERROR

只需要执行“sudo apt-get install libtool”安装好即可解决。

sudo apt-get install libtool

## 三、开启VNC服务

### CentOS 6.5安装VNCserver 并开启远程桌面

启动vncserver服务。 第一次启动时这样操作  直接输入 vncserver &

http://www.linuxidc.com/Linux/2016-06/132024.htm

### Ubuntu启用VNC服务的配置

[**http://www.linuxidc.com/Linux/2016-08/133917.htm**](http://www.linuxidc.com/Linux/2016-08/133917.htm)

[**Ubuntu**](http://www.linuxidc.com/topicnews.aspx?tid=2)**服务器配置**

安装vncserver服务

$ sudo apt-get install vnc4server

开启vnc服务  
如果你想访问root用户的桌面环境就用sudo vncserver，如果访问当前普通用户的环境就直接vncserver即可。   
首次启动会要求设置密码，用来在客户端访问时使用，后面可以使用vncpasswd 修改。

$ vncserver  
启动vnc成功后，会在主目录下产生一个.vnc目录。

修改原有xstartup文件以图形化访问  
如果不修改xstartup文件就在客户端下访问，则会出现灰色的界面，显然这不是我们想要的。

$ vim ~/.vnc/xstartup  
修改文件内容：

#!/bin/sh

# Uncomment the following two lines for normal desktop:  
unset SESSION\_MANAGER  
unset DBUS\_SESSION\_BUS\_ADDRESS  
# exec /etc/X11/xinit/xinitrc

[ -x /etc/vnc/xstartup ] && exec /etc/vnc/xstartup  
[ -r $HOME/.Xresources ] && xrdb $HOME/.Xresources  
xsetroot -solid grey  
vncconfig -iconic &  
x-terminal-emulator -geometry 80x24+10+10 -ls -title "$VNCDESKTOP Desktop" &  
# x-window-manager &

export DESKTOP\_SESSION=ubuntu-2d   
export GDMSESSION=ubuntu-2d  
export STARTUP="/usr/bin/gnome-session --session=ubuntu-2d"

$STARTUP   
重启vnc服务  
修改完成后，如果你已开启了vncserver服务，需要使用：

$ vncserver -kill :1  
（这里是默认的1号桌面，根据自己情况修改）来杀死正在运行的桌面服务，然后重启该服务：

$ vncserver :1  
生成新的会话，客户端重新连接，就会出现图形界面。

客户端配置  
安装vncviewer或者使用[Fedora](http://www.linuxidc.com/topicnews.aspx?tid=5)默认安装的boxes，在里面输入地址：

vnc://192.168.31.192:5901  
连接时输入设置的密码即可。

[CentOS](http://www.linuxidc.com/topicnews.aspx?tid=14) 6.5 安装VNC Server实现图形化访问  <http://www.linuxidc.com/Linux/2015-12/126262.htm>

VNC的安装配置 <http://www.linuxidc.com/Linux/2013-05/84941.htm>

CentOS 6.3安装和配置VNC <http://www.linuxidc.com/Linux/2013-05/84668.htm>

Linux下强制不检测依赖安装VNC <http://www.linuxidc.com/Linux/2013-05/84075.htm>

CentOS6 VNC服务安装配置 <http://www.linuxidc.com/Linux/2013-04/82510.htm>

CentOS下VNC配置和安装  <http://www.linuxidc.com/Linux/2013-05/83975.htm>

VNC远程控制安装和设置 <http://www.linuxidc.com/Linux/2013-01/77769.htm>

Windows通过VNC访问Ubuntu  <http://www.linuxidc.com/Linux/2012-10/73043.htm>

Windows远程桌面访问Ubuntu 12.04 之安装VNC <http://www.linuxidc.com/Linux/2012-07/64801.htm>

更多Ubuntu相关信息见[Ubuntu](http://www.linuxidc.com/topicnews.aspx?tid=2) 专题页面 <http://www.linuxidc.com/topicnews.aspx?tid=2>

**本文永久更新链接地址**：<http://www.linuxidc.com/Linux/2016-08/133917.htm>

#### How To Set Up Guacamole Tool To Access Remote Linux/Windows Machines

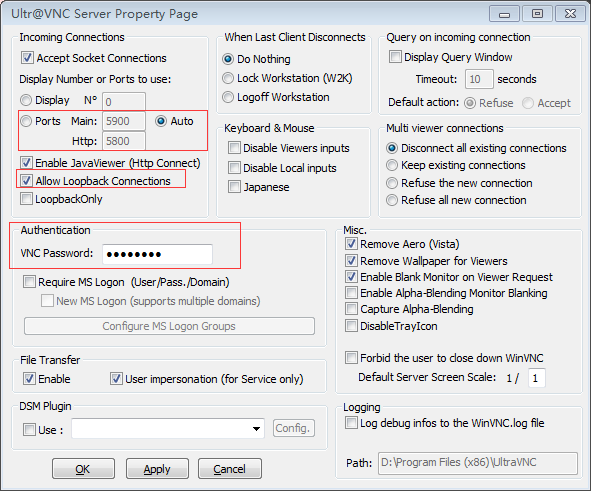
**https://www.linuxhelp.com/how-to-set-up-guacamole-tool-to-access-remote-linuxwindows-machines/**

## vnc连接

### 远程客户端安装VNC服务

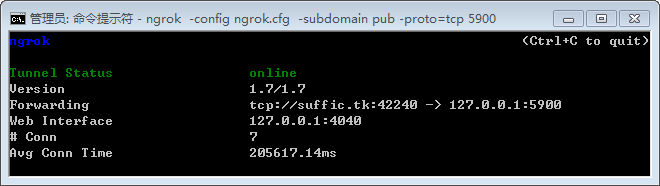
下载、安装、并启动ultraVNC

在Admin Properties里面设置密码和端口号（默认5900）。



### 内网穿透：在远程客户端执行

ngrok.exe –config ngrok.cfg –subdomain t –proto=tcp 5900



**建立tcp隧道，将对suffic.tk:46458的tcp连接，映射到127.0.0.1:5900.**

### 设置user-mapping.xml

<user-mapping>

<authorize username="sin" password="suffic">

<connection name="RDP Connection">

<protocol>rdp</protocol>

<param name="hostname">t.suffic.tk</param>

<param name="port">46458</param>

<param name="username">wangqingguo</param>

<param name="password">acosin.234</param>

<param name="domain">ztgame</param>

<param name="width">1920</param>

<param name="height">1080</param>

<param name="remote-app">||notepad</param>

<param name="remote-app-dir">C:\Windows\System32\notepad.exe</param>

</connection>

<connection name="SSH Connection">

<protocol>ssh</protocol>

<param name="hostname">192.168.99.70</param>

<param name="port">22</param>

</connection>

<connection name="vnc">

<protocol>vnc</protocol>

<param name="hostname">t.suffic.tk</param>

<param name="port">42240</param>

<param name="password">123456</param>

</connection>

<connection name="vnc-local">

<protocol>vnc</protocol>

<param name="hostname">localhost</param>

<param name="port">5903</param>

<param name="password">123456</param>

</connection>

</authorize>

</user-mapping>

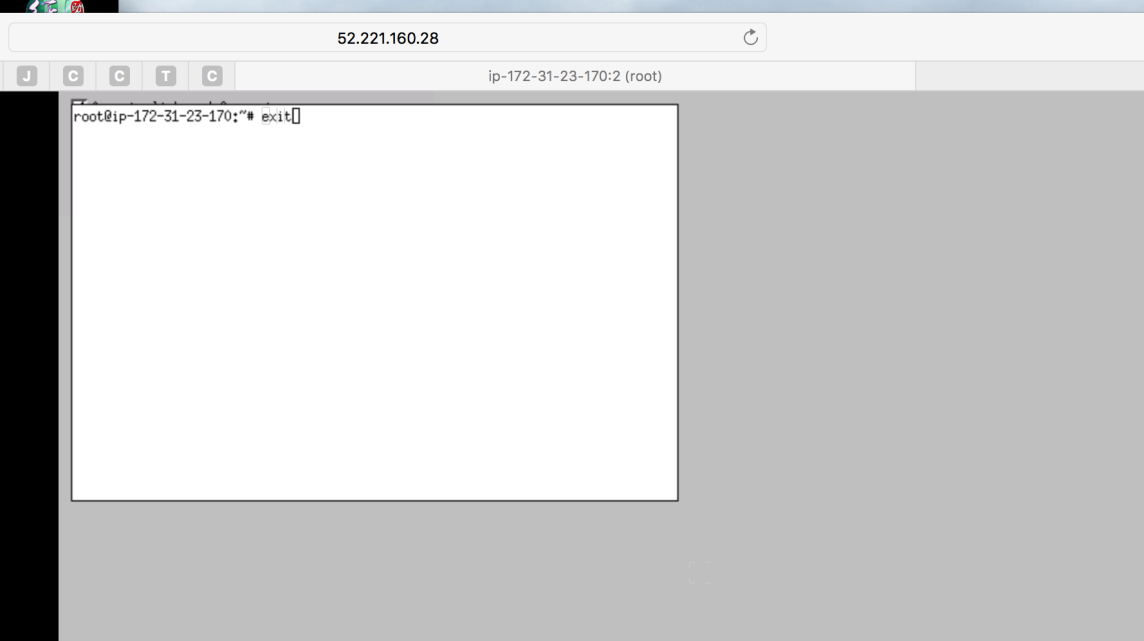
设置好以后，就可以在终端的浏览器中远程访问了。

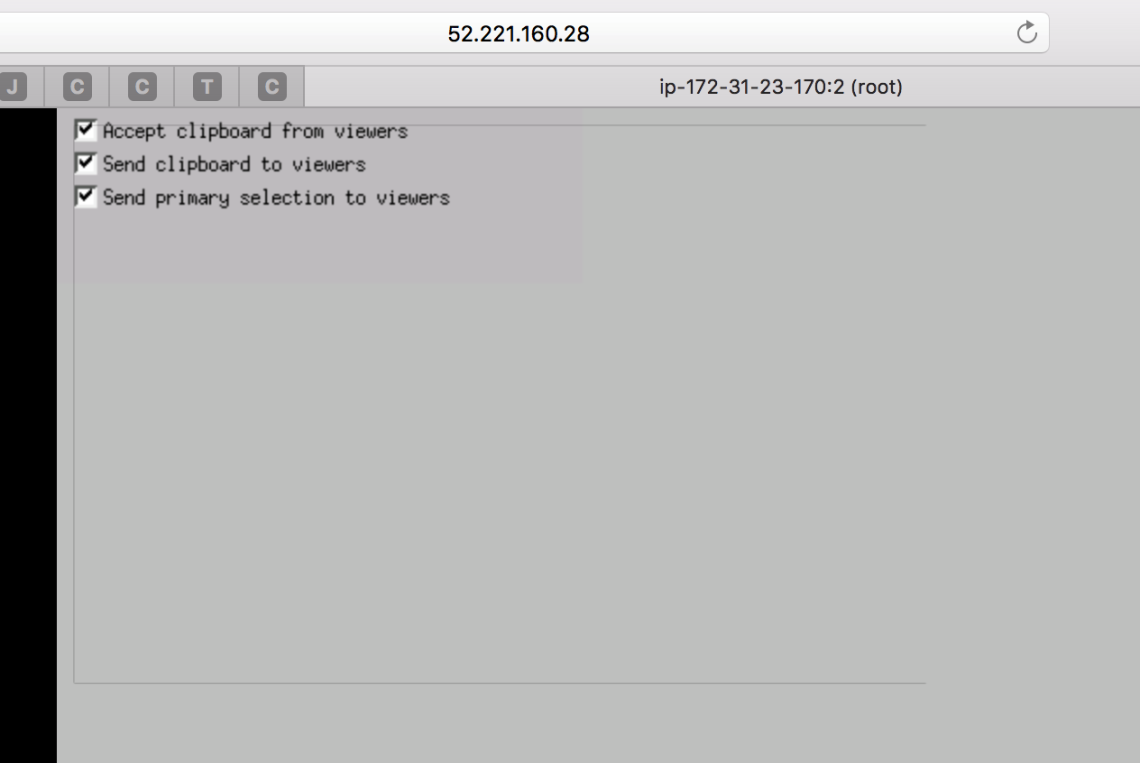
**问题1.vnc可以开启多个窗口，如果在一个窗口中执行了exit，则会显示**

**Accept clipboard from viewers**

**Send clipboard to viewers**

**Send Primary selection to viewers**





**这说明这个vnc的窗口已经被关闭了。可以通过在服务器上执行vnc4server开启新的窗口，并修改user-mapping中vnc连接的端口号配置**

**<authorize username="linuxhelp" password="password">**

**<connection name="RDP Connection">**

**<protocol>rdp</protocol>**

**<param name="hostname">192.168.99.70</param>**

**<param name="port">3389</param>**

**</connection>**

**<connection name="SSH Connection">**

**<protocol>ssh</protocol>**

**<param name="hostname">192.168.99.70</param>**

**<param name="port">22</param>**

**</connection>**

**<connection name="vnc">**

**<protocol>vnc</protocol>**

**<param name="hostname">192.168.99.70</param>**

**<param name="port">5901</param>**

**<param name="password">123456</param>**

**</connection>**

**<connection name="vnc-local">**

**<protocol>vnc</protocol>**

**<param name="hostname">localhost</param>**

**<param name="port">5902</param>**

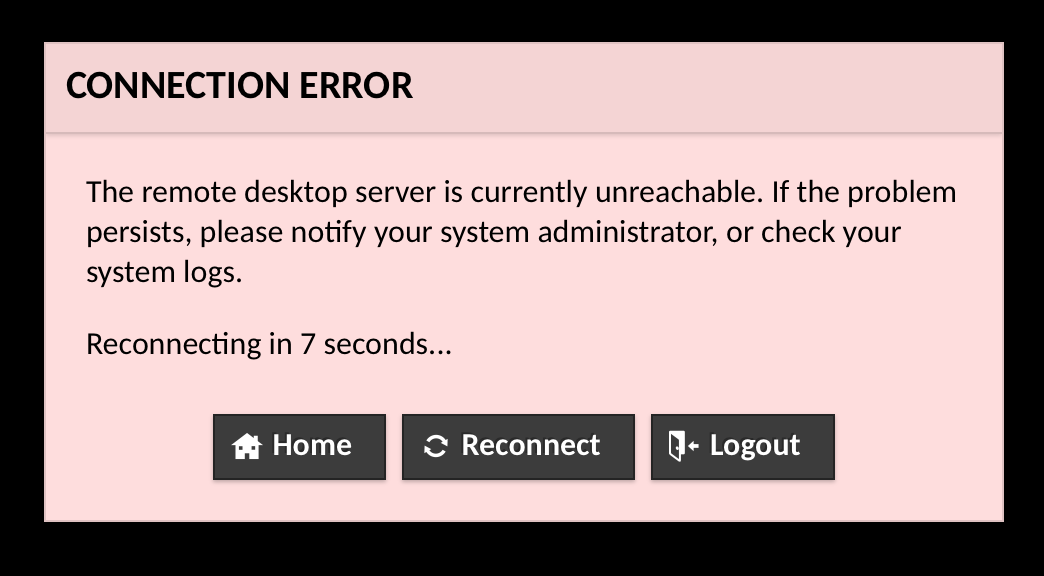
**<param name="password">123456</param>**

**</connection>**

**</authorize>**

**</user-mapping>**

**问题2.VNC connection failed: Too many security failures**



The remote desktop server is currently unreachable. If the problem persists, please notify your system administrator, or check your system logs.

**这个问题是因为vnc配置中的密码和vnc服务器的密码不一致。**

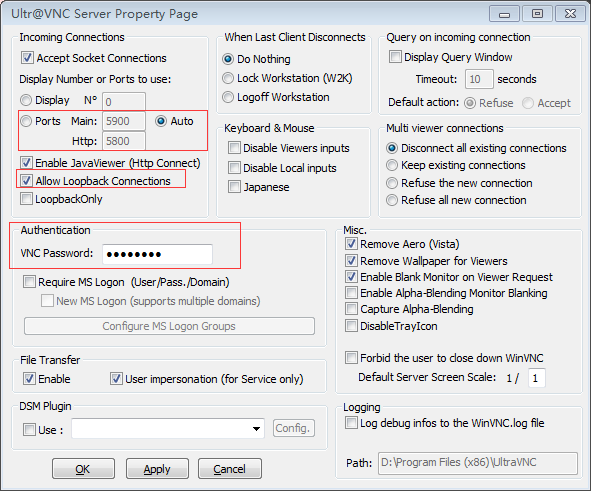
**<param name="password">123456</param>**

修改完user-mapping.xml后，需要在浏览器客户端上重新登录guacamole的账号才生效。

**问题3.** **Local Loopback connections are disabled error**

**winvnc admin properties**

**[X] Allow loopback connections**

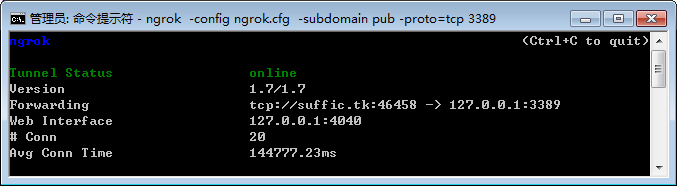


## RPD连接

### 远程客户端开启远程桌面服务(Remote Desktop Service)

### 内网穿透：在远程客户端执行

ngrok.exe –config ngrok.cfg –subdomain t –proto=tcp 3389



**建立tcp隧道，将对suffic.tk:46458的tcp连接，映射到127.0.0.1:3389.**

### 设置user-mapping.xml

<user-mapping>

<authorize username="linuxhelp" password="password">

<connection name="RDP Connection">

<protocol>rdp</protocol>

<param name="hostname">t.suffic.tk</param>

<param name="port">46458</param>

<param name="username">wangqingguo</param>

<param name="password">acosin.234</param>

<param name="domain">ztgame</param>

<param name="width">1920</param>

<param name="height">1080</param>

</connection>

<connection name="SSH Connection">

<protocol>ssh</protocol>

<param name="hostname">192.168.99.70</param>

<param name="port">22</param>

</connection>

<connection name="vnc">

<protocol>vnc</protocol>

<param name="hostname">192.168.99.70</param>

<param name="port">5901</param>

<param name="password">123456</param>

</connection>

<connection name="vnc-local">

<protocol>vnc</protocol>

<param name="hostname">localhost</param>

<param name="port">5903</param>

<param name="password">123456</param>

</connection>

</authorize>

</user-mapping>