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#!/bin/bash
#
#####
#
#   Name:           Asterisk_install.sh
#   Author:         Chris Fedun 23/02/2017
#   Description:    Asterisk Install script
#
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#
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#####
##### Constants #####
host_name=$1
domain_name=$2
Is_PI=$3

Setup_dir='/root/initial_setup/call_manager/'
First_boot="/var/log/firstboot.log"
Second_boot="/var/log/secondboot.log"
sound_src="/var/lib/asterisk/sounds/"
asterisk_SRC="/usr/local/src/"
root_db_pass=$( cat $Setup_dir\MYSQL/pass.txt )

##### Functions #####
function unpack_asterisk
{
    cp -r $Setup_dir\Asterisk_files/* $asterisk_SRC
    cd $asterisk_SRC
    tar -zxvf libpri-current.tar.gz
    tar -zxvf asterisk-14-current.tar.gz
    tar -zxvf jansson-2.7.tar.gz
    tar -zxvf dahdi-linux-complete-current.tar.gz
    tar -xjvf pjproject-2.6.tar.bz2
    tar -xzvf freepbx-13.0-latest.tgz
}

function install_iksemel
{
    ###Google Voice support###
    echo "[+] Building and Installing iksemel..."
    cd $asterisk_SRC\iksemel
    ./autogen.sh
    ./configure
    make
    make install
}

function install_DHADI
{
    ### Install DHADI ###
    echo "[+] Building and Installing DHADI..."
    cd $asterisk_SRC\dahdi-linux-complete-2.11.1+2.11.1/
    make all && make install
}
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make config
}

function install_LibPRI
{
    ### Install LibPRI ###
    echo "[+] Building and Installing LibPRI..."
    cd $asterisk_SRC\libpri-1.6.0/
    make && make install
}

function install_jansson
{
    echo "[+] Compile and Install jansson..."
    cd $asterisk_SRC\jansson-*
    autoreconf -i
    ./configure
    make
    make install
}

function install_asterisk
{
    cd $asterisk_SRC\asterisk-14.3.0/

    expect $Setup_dir\ITU-T.exp
    #./contrib/scripts/install_prereq install #expect
    ./contrib/scripts/install_prereq install-unpackaged
    #compile with bundled PJsip Project
    ./configure --with-pjproject-bundled
    ./contrib/scripts/get_mp3_source.sh
    ###for RPI change this to compile###
    sed -i '
/\#    define PJ_M_NAME\t\t"armv4"/{
    N
        /\#    define PJ_HAS_PENTIUM\t0/ {
        N
            /\#    if !PJ_IS_LITTLE_ENDIAN && !PJ_IS_BIG_ENDIAN/ {
            N
                /\#    \terror Endianness must be declared for this processor/ {
                N
                    /\#    endif/ {
                    N
                        s/\#    define PJ_M_NAME\t\t"armv4"\n\#    define
PJ_HAS_PENTIUM\t0\n\#    if !PJ_IS_LITTLE_ENDIAN &&
!PJ_IS_BIG_ENDIAN\n\#    \terror Endianness must be
declared for this processor\n\#    endif/\#    define
PJ_M_NAME\t\t"armv4"\n\#    define
PJ_HAS_PENTIUM\t0\n\#    define
PJ_IS_LITTLE_ENDIAN\t1\n\#    define
PJ_IS_BIG_ENDIAN\t0/
                    }
                }
            }
        }
    }
}

' /usr/local/include/pj/config.h

make menuselect.makeopts
menuselect/menuselect --enable app_voicemail --enable format_mp3 --enable res_config_mysql \
--enable app_mysql --enable cdr_mysql --enable res_pjsip_config_wizard \
--enable EXTRA-SOUNDS-EN-GSM --enable res_pjproject menuselect.makeopts
make && make install
make config
make install-logrotate

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if [ $Is_PI = $false ]; then
    # 8 KHz
    cd $asterisk_SRC
    cp asterisk-core-sounds-en-wav-current.tar.gz $sound_src
    cp asterisk-extra-sounds-en-wav-current.tar.gz $sound_src
    cd $sound_src
    tar -zxvf asterisk-core-sounds-en-wav-current.tar.gz
    tar -zxvf asterisk-core-sounds-en-wav-current.tar.gz
    # Wideband Audio ( High Definition 'Wideband' )
    cd $asterisk_SRC
    cp asterisk-extra-sounds-en-g722-current.tar.gz $sound_src
    cp asterisk-core-sounds-en-g722-current.tar.gz $sound_src
    cd $sound_src
    tar asterisk-extra-sounds-en-g722-current.tar.gz
    tar asterisk-core-sounds-en-g722-current.tar.gz
fi
#Make Docs # not needed
#make progdocs
}

function conf_ODBC
{
cat >> /etc/odbcinst.ini << EOF
[MySQL]
Description = ODBC for MySQL
Driver = /usr/lib/x86_64-linux-gnu/odbc/libmyodbc.so
Setup = /usr/lib/x86_64-linux-gnu/odbc/libodbcmyS.so
FileUsage = 1

EOF

cat >> /etc/odbc.ini << EOF
[MySQL-asteriskcdrdb]
Description=MySQL connection to 'asteriskcdrdb' database
driver=MySQL
server=localhost
database=asteriskcdrdb
Port=3306
Socket=/var/run/mysqld/mysqld.sock
option=3

EOF

}

function FreePBX_conf
{
cat >> /etc/systemd/system/freepbx.service << EOF
[Unit]
Description=FreePBX VoIP Server
After=mysql.service

[Service]
Type=oneshot
RemainAfterExit=yes
ExecStart=/usr/sbin/fwconsole start
ExecStop=/usr/sbin/fwconsole stop

[Install]
WantedBy=multi-user.target
EOF

systemctl enable freepbx

cat >> /etc/logrotate.d/asterisk << EOF

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/var/spool/mail/asterisk
/var/log/asterisk/*log
/var/log/asterisk/messages
/var/log/asterisk/full
/var/log/asterisk/dtmf
/var/log/asterisk/freepbx_dbug
/var/log/asterisk/fail2ban {
    weekly
    missingok
    rotate 4
    #compress
    notifempty
    sharedscripts
    create 0640 asterisk asterisk
    postrotate
    /usr/sbin/asterisk -rx 'logger reload' > /dev/null 2> /dev/null || true
    endscrip
    su root root
}
EOF

}

function install_FreePBX
{
    #useradd -m asterisk
    adduser asterisk --disabled-password --shell /sbin/nologin --gecos "Asterisk User"
    chown asterisk. /var/run/asterisk
    chown -R asterisk. /etc/asterisk
    chown -R asterisk. /var/{lib,log,spool}/asterisk
    chown -R asterisk. /usr/lib/asterisk
    rm -rf /var/www/html
    #Configure Apache2 #
    bash -x $Setup_dir\Apache2/Apache_config.sh
    # Configure ODBC #
    conf_ODBC
    # Install FreePBX#
    ldconfig
#
    update-rc.d -f asterisk remove
    update-rc.d asterisk disable
    cd $asterisk_SRC\freepbx
    ./start_asterisk start
    ./install -n --dbpass $root_db_pass
    # Minimal module install
    fwconsole ma upgrade framework core voicemail sipsettings infoservices \
    featurecodeadmin logfiles callrecording cdr dashboard
    #my options
    fwconsole ma upgrade confgedit backup asteriskinfo bulkhandler callforward certman expanel \
    disa fw_langpacks languages asterisk-cli cidlookup \
    blacklist
    fwconsole restart
    fwconsole reload
    fwconsole chown
    FreePBX_conf

    #enable logging for Fail2Ban
    echo "messages => security, notice,warning,error" >> /etc/asterisk/
    logger_logfiles_additional.conf
}

function setup_tftp
{
    cat >> /etc/xinetd.d/tftp << EOF
service tftp
{
    protocol      = udp
    port          = 69

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socket_type      = dgram
wait             = yes
user             = nobody
server          = /usr/sbin/in.tftpd
server_args      = /tftpboot
disable          = no
}
EOF

mkdir /tftpboot
chmod 777 /tftpboot
systemctl restart xinetd
}
function clean_up
{
    rm /usr/local/src/*.tar.gz
    rm /usr/local/src/*.tar.bz2
    rm /usr/local/src/*.tgz
    rm /var/lib/asterisk/sounds/*.tar.gz
}
##### Main #####
unpack_asterisk
install_iksemel
install_DHADI
install_LibPRI
install_jansson
install_asterisk
install_FreePBX
setup_tftp
clean_up
exit
##### END :) #####
```