

# Extensions

Extensions are part of **phonegroups** and serve as end points for calls, or where calls can be placed from. **Extensions** are set to use a [Class of Service](#) to define how calls from this extension are handled.

## Adding an Extension

1) Enter the CLI's configuration mode.

2) Enter the number of the **Extension** you wish to create. You will be prompted with the minimum required settings. An **extension** does not necessarily need to be a number, but in most cases this is recommended.

```
servername(config)# extension 5000
servername(config-extension 5000)#
```

4) Select a device type. (Press "Tab" after `device_type` to see available options)

```
servername(config-extension 5000)# device_type
SIP          IAX2          DAHDI          VIRTUAL          SIP-VIRTUAL
servername(config-extension 5000)# device_type SIP
servername(config-extension 5000)#
```

Option	Description
SIP	Physical phone (such as Polycom) or a software phone (such as Linphone or X-lite)
IAX2	Inter-Asterisk exchange
DAHDI	Phone cards physically installed in computers, not commonly used
VIRTUAL	Used mainly for mailboxes
SIP-VIRTUAL	Acts as a secondary extension (or tertiary, if using two) for a SIP device, but is still considering a separate extension.

5) By default the extension is created using your system defaults. Use the **show** command to see the default values for the extension.

```

servername(config-extension 5000)# show
! Generating running-config
!!!!

! ----- Extensions -----
extension 5000
  always_autoanswer no
  callerid_number 5000
  call_screening no
  cos internal+local+ld
  device_type SIP
  in_directory yes
  phonegroup internal
  phonemake_id generic
  phonemodel_id generic
  phone_type Generic
  record no
  tenant_name default
  voicemail_enable no
  sip
    allow ulaw,alaw,adpcm,gsm
    call-limit 4
    canreinvite no
    disallow g723,slin,ilbc,lpc10,g729,spex,g726aal2,g722
    host dynamic
    nat yes
    qualify yes
    rtpholdtimeout 60
    rtptimeout 60
    secret 35712c6fd77554c7d6902ebb5831030f
    sendrpid yes
    trustrpid no
    username 5000
  exit
exit
exit

```

6) A couple of settings that may need to be changed first are **Phonegroups** and **Class of Service (cos)**. Let's see what options we have for these.

```
servername(config-extension 5000)# phonegroup   ### Use the tab key to a get a list of the
available options
carpet_agents          hard_surface_agents internal
servername(config-extension 5000)# cos
internal+local+ld+intl internal+local+ld      internal+local      internal
```

## 7) Change the **phonegroup**.

```
servername(config-extension 5000)# phonegroup
carpet_agents          hard_surface_agents internal
servername(config-extension 5000)# phonegroup carpet_agents
```

## 8) Next change the **Class of Service (cos)**

```
servername(config-extension 5000)# cos
internal+local+ld+intl internal+local+ld      internal+local      internal
servername(config-extension 5000)# cos internal+local
```

## 9) Afterwards check to ensure the changes were saved.

```
servername(config-extension 5000)# show
! Generating running-config
!!!!

! ----- Extensions -----
extension 5000
  always_autoanswer no
  callerid_number 5000
  call_screening no
  cos internal+local      ### changes saves successfully
  device_type SIP
  in_directory yes
  phonegroup carpet_agents  ### changes saves successfully
  phonemake_id generic
  phonemodel_id generic
  phone_type Generic
  record no
  tenant_name default
  voicemail_enable no
  sip
```

```
allow ulaw,alaw,adpcm,gsm
call-limit 4
canreinvite no
disallow g723,slin,ilbc,lpc10,g729,speex,g726aal2,g722
host dynamic
nat yes
qualify yes
rtpholdtimeout 60
rtptimeout 60
secret 35712c6fd77554c7d6902ebb5831030f
sendrpid yes
trustpid no
username 5000
exit
exit

exit
```

# Voicemail Setup

Voicemail must be enabled manually on an **extension**. On most systems, voicemail is disabled by default

- 1) Enter the CLI's configuration mode.
- 2) Select the **extension** to set up voicemail on.

```
vbox-markm(config)# extension
1000 1001 1005 1234 5000 1050 AB 560
vbox-markm(config)# extension 5000
vbox-markm(config-extension 5000)#
```

- 3) Enable voicemail using the following command.

```
vbox-markm(config-extension 5000)# voicemail_enable yes
```

- 4) Use the show command to show voicemail has been enabled.

```
vbox-markm(config-extension 5000)# show
```

```
! Generating running-config
```

```
!!!!
```

```
! ----- Extensions -----
```

```
extension 5000
```

```
always_autoanswer no
```

```
callerid_number 5000
```

```
call_screening no
```

```
cos internal+local+ld
```

```
device_type SIP
```

```
in_directory yes
```

```
phonegroup carpet_agents
```

```
phonemake_id generic
```

```
phonemodel_id generic
```

```
phone_type Generic
```

```
record no
```

```
tenant_name default
```

```
vmail_phonegroup_override internal
```

```
voicemail_enable yes          ### Voicemail has been enabled
```

```
sip
```

```
allow ulaw,alaw,adpcm,gsm
```

```
call-limit 4
```

```
canreinvite no
```

```
disallow g723,slin,ilbc,lpc10,g729,speex,g726aal2,g722
```

```
host dynamic
```

```
nat yes
```

```
qualify yes
```

```
rtpholdtimeout 60
```

```
rtptimeout 60
```

```
secret 35712c6fd77554c7d6902ebb5831030f
```

```
sendrpid yes
```

```
trustrpid no
```

```
username 5000
```

```
exit
```

```
voicemail          ### Voicemail has been enabled, when it's disabled this
```

```
and it's settings will not show.
```

```
format sln
```

```
override_phonegroup_name internal
```

```
pin 5000
```

```
voicemail yes
exit
exit

exit
```

5) There are additional voicemail options, such as setting an email to forward voicemail.

```
vbox-markm(config-extension 5000)# voicemail
vbox-markm(config-extension 5000 voicemail)#          ### Use ? to see the
available options, it will also show the description as shown below
attach          Enable/Disable attach voicemail recording to email
callback        Context to call back from
delete          Enable/Disable deleting voicemail from the server after
notification
dialout         Context to dial out from (option 4 from advanced menu if
enabled)
do              To run exec commands in config mode
email           Email address to use when sending voicemail email notification
envelope        Enable/Disable envelope information playback before message
playback
exit            Exit from this level (with notification of incomplete config)
forcegreetings Force greeting to be recorded if the mailbox password is the
same as the mailbox number
forcename       Force name to be recorded if the mailbox password is the same
as the mailbox number
format          Format for the voicemail recording
fromstring      The 'From' name when sending a voicemail email notification
hidefromdir     Enable/Disable hiding this mailbox from the company directory
maxgreetingtime Maximum number of seconds for a voicemail greeting
maxlogins       Maximum number of failed login attempts before hanging up on
user
maxmsgs         Maximum number of messages that this voicemail box can contain
before it is considered full
maxsecs         Maximum number of seconds that a voicemail message can be
minsecs         Minimum number of seconds that a voicemail must be in order to
be saved
nextaftercmd    Enable/Disable automatically proceeding to the next message
after the user enters a command
no              Clear setting
```

operator	Enable/Disable the ability for the caller to dial 0 from voicemail
override_phonergroup_name	Optionally put this mailbox into a different phonergroup than the one the extension is a part of
pin	(*) Voicemail pin number
portal_voicemail_folders_hide	
review	Enable/Disable the ability for the caller leaving a message to review and/or rerecord message before saving it
saycid	Enable/Disable say callerid for voicemail message
sayduration	Enable/Disable saying the message duration before playing the message
saydurationm	Minimum number of minutes of duration needed when saying the duration
sendvoicemail	Enable/Disable the ability for the user to compose and send a voicemail while inside voicemail (option 5 from advanced menu if enabled)
show	Show the running-config for the current item
silencethreshold	What level do we consider silence. Lower numbers mean more sensitive
tz	Timezone to use for this mailbox
voicemail	

6) Enable the voicemail to email feature, set the email where voicemail should be forwarded, and then use the **show** command to ensure your settings were saved.

```
vbox-markm(config-extension 5000 voicemail)# attach yes          ### enables
attachment of voicemail on emails
vbox-markm(config-extension 5000 voicemail)# email notarealemail@zeromail.com  ### email
address voicemail will be sent to.
vbox-markm(config-extension 5000 voicemail)# show
! Generating running-config
!!!!

! ----- Extensions -----
extension 5000
  always_autoanswer no
  callerid_number 5000
  call_screening no
  cos internal+local+ld
  device_type SIP
  in_directory yes
```

```
phonegroup carpet_agents
phonemake_id generic
phonemodel_id generic
phone_type Generic
record no
tenant_name default
vmail_phonergroup_override internal
voicemail_enable yes
sip
  allow ulaw,alaw,adpcm,gsm
  call-limit 4
  canreinvite no
  disallow g723,slin,ilbc,lpc10,g729,spex,g726aal2,g722
  host dynamic
  nat yes
  qualify yes
  rtptholdtimeout 60
  rtptimeout 60
  secret 35712c6fd77554c7d6902ebb5831030f
  sendrpid yes
  trustpid no
  username 5000
  exit
voicemail
  attach yes                ### saved successfully
  email notarealemail@zeromail.com  #### " "
  format sln
  override_phonergroup_name internal
  pin 5000
  voicemail yes
  exit
exit
exit
```

It is important to remember to use the correct email address. That being said, it is NOT recommended to disable saving the voicemail on the extension itself and only have it sent through email since your voicemail could be lost if there is something wrong outside of the Intellasoft platform (transmission issues, email server (SMTP) issues).

7) Lastly it is important to set a PIN for the voicemail, so the user of the extension can access their voicemail securely and prevent unwanted access.

```
vbox-markm(config-extension 5000 voicemail)# pin 0011
```

# Extension Settings Description

You can also use the "?" key to view the description while in the CLI. \* indicates a required setting.

Setting	Description
all_call_forward	Call forwarding
always_autoanswer	Whether or not to send an always answer header when calling this extension
autoanswergroup_id	
busy_call_forward	If the extension is busy or unava
call_screening	
callerid_name	Caller ID name
callerid_number	Caller ID number
cos	Class of service when this extension makes a call
department_name	
device_type	(*) Protocol that this device will use
did	Inbound DID (Direct Inward Dialing)
do	To run exec commands in config mode
exit	Exit from this level (with notification of incomplete config)
external_callerid	What callerid to use when the extension dials out a route
iax	Change IAX-specific extension settings
in_directory	Enable/Disable showing this extension in company directories
no	Clear settings
override_extension	Override the dialable extension
phone_type	Extension type
phonegroup	Phonegroup that this extension is a member of
phonemake_id	
phonemodel_id	

Setting	Description
polycom	MAC Address of the physical phone this extension is assigned to
polycom_reg	Registration number on the physical phone (ie: polycom reg number)
record	Whether to record all calls to/from this device
ringseconds_till_voicemail	
show	Show the running-config for the current item
sip	Change SIP-specific extension settings
tenant_name	Tenant that owns this phone
twinning_number	Twining number. Ring an external number such as a cell phone.
user_id	
username	Web portal username that is assigned to this extension (Note: a username can be assigned to more than one extension)
vmail_phonergroup_override	Override what phonergroup this extension's mailbox is a member of
vmail_subscribe_override	Override what mailbox this extension subscribes to
voicemail	Change voicemail settings
voicemail_enable	Enable/disable voicemail for this extension

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