AMD - ?????? Asterisk ?????????????????????????

Dialplan ??

[amd-test]
exten => 9970,1,Noop(-- AMD Testing Start --)
 same => n,Background(beep)
 same => n,AMD()
 same => n,Noop(Detected: AMDSTATUS is ${AMDSTATUS})
 same => n,Goto(Status-${AMDSTATUS})
 same => n(Status-HUMAN),Noop(When AMDSTATUS is <HUMAN>)
 same => n,WaitForSilence(2500)
 same => n,Playback(message-when-machine)
 same => n,Hangup
 same => n(Status-MACHINE),Noop(When AMDSTATUS is <MACHINE>)
 same => n,Hangup
 same => n(Status-NOTSURE),Noop(When AMDSTATUS is <NOTSURE>)
 same => n,Hangup
 same => n(Status-HANGUP),Noop(When AMDSTATUS is <HANGUP>)
 same => n,Hangup

amd.conf

;
; Answering Machine Detection Configuration
;

[general]
initial_silence = 2500   ; Maximum silence duration before the greeting.
                    ; If exceeded then MACHINE.
greeting = 1500   ; Maximum length of a greeting. If exceeded then MACHINE.
after_greeting_silence = 800   ; Silence after detecting a greeting.
                    ; If exceeded then HUMAN
total_analysis_time = 5000   ; Maximum time allowed for the algorithm to decide
                    ; on a HUMAN or MACHINE
min_word_length = 100   ; Minimum duration of Voice to considered as a word
between_words_silence = 50   ; Minimum duration of silence after a word to consider
                    ; the audio what follows as a new word
maximum_number_of_words = 3   ; Maximum number of words in the greeting.
                    ; If exceeded then MACHINE
silence_threshold = 256   ;silence threshold is how loud silence is.

Tips:

- silence_threshold: ??????silence????????????????????????? silence?????????????????????????????????????
  ????????????

????? amd.conf

```
[amd-without-conf]
exten => 7002,1,Answer()
exten => 7002,n,AMD(2500,1500,300,5000,120,50,4,384)
exten => 7002,n,GotoIf($["${AMDSTATUS}" = "MACHINE"]?machine:human)
exten => 7002,n(machine),Verbose(3, We found an answring machine)
exten => 7002,n,Set(AMP=${CALLERID(num)})
exten => 7002,n,Set(date=${STRFTIME(${EPOCH},,%Y%m%d-%H%M%S)})
exten => 7002,n,NoOp(Here is the dialplan you want to run)
exten => 7002,n(human),Verbose(3, We've got a human on the line!)
exten => 7002,n,NoOp(Here is the dialplan you want to run)
```

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```
[test-amd]
exten => 9991,1,NoCDR()
exten => 9991,n,Macro(amd-detection)
exten => 9991,n,Playback(demo-echotest)
exten => 9991,n,Echo()
exten => 9991,n,Playback(demo-echodone)
exten => 9991,n,Hangup
exten => h,1,Noop(Logging the Call details into the DB)
exten => h,n,Noop(AMDSTATUS: ${AMDSTATUS}, AMDCAUSE: ${AMDCAUSE})
exten => h,n,Noop(UNIQUEID: ${UNIQUEID}, CALLDATE: ${CALLDATE})
exten => h,n,MYSQL(Connect connid localhost root 123456 dialer)
exten => h,n,MYSQL(Query resultid ${connid} INSERT INTO
`amd_log`(`calldate`,`uniqueid`,`amd_status`,`amd_cause`) VALUES
('${CALLDATE}','${UNIQUEID}','${AMDSTATUS}','${AMDCAUSE}'))
exten => h,n,MYSQL(Disconnect ${connid})


[macro-amd-detection]
exten => s,1,Noop(Answering Machine Detection - AMD)
exten => s,n,Set(CALLDATE=${STRFTIME(${EPOCH},,%Y-%m-%d %H:%M:%S)})
exten => s,n,Background(beep)
; Syntax: AMD([initialSilence][,greeting[,afterGreetingSilence[,totalAnalysis Time[,miniumWordLength
[,betweenWordSilence[,maximumNumberOfWords[,silenceThreshold[,maximumWordLength]]]]]]]])
exten => s,n,AMD(2500,1500,800,5000,120,50,4,256)
exten => s,n,Noop(AMDSTATUS: ${AMDSTATUS}, AMDCAUSE: ${AMDCAUSE})
exten => s,n,Noop(UNIQUEID: ${UNIQUEID}, CALLDATE: ${CALLDATE})
exten => s,n,GotoIf($["${AMDSTATUS}" = "MACHINE"]?machine:human)
exten => s,n(machine),Noop(We found an answering machine)
exten => s,n,Hangup
exten => s,n(human),Noop(We've got a human on the line)
```

???: ? AMD ????MSQL???

```
[dialerConnect]
```

```
exten => _X.,1,NoCDR()
exten => _X.,n,Set(CUSTOMER=${CUT(EXTEN,A,4)})
exten => _X.,n,Set(CONTACTID=${CUT(EXTEN,A,3)})
exten => _X.,n,Set(MEXTEN=${CUT(EXTEN,A,2)})
exten => _X.,n,Set(IDCAMPAIGN=${CUT(EXTEN,A,1)})
exten => _X.,n,Set(CALLERID(num)=${MEXTEN})
exten => _X.,n,Set(CALLERID(name)=${MEXTEN})
exten => _X.,n,MYSQL(Connect connid localhost root 123456 dialer)
exten => _X.,n,MYSQL(Query resultid ${connid} select use_amd from settings)
exten => _X.,n,MYSQL(Fetch foundRow ${resultid} useamd)
exten => _X.,n,MYSQL(Clear ${resultid})
exten => _X.,n,MYSQL(Disconnect ${connid})
exten => _X.,n,GotoIf($["${USEAMD}" = "1"]?useamd:noamd)
exten => _X.,n(useamd),Macro(amd-detection)
exten => _X.,n,GotoIf($["${AMDSTATUS}" = "HUMAN"]?noamd:nhuman)
exten => _X.,n(nhuman),GotoIf($["${AMDSTATUS}" = "MACHINE"]?hangup:nmachine)
exten => _X.,n(nmachine),GotoIf($["${AMDSTATUS}" = "NOTSURE"]?notsure:hangup)
exten => _X.,n(notsure),MYSQL(Connect connid localhost root 123456 dialer)
exten => _X.,n,MYSQL(Query resultid ${connid} select amd_hangupifnotsure from settings)
exten => _X.,n,MYSQL(Fetch foundRow ${resultid} acnotsure)
exten => _X.,n,MYSQL(Clear ${resultid})
exten => _X.,n,MYSQL(Disconnect ${connid})
exten => _X.,n,GotoIf($["${ACNOTSURE}" = "1"]?hangup:noamd)
exten => _X.,n(noamd),AGI(dialer.php,update,${IDCAMPAIGN},${CONTACTID},${UNIQUEID})
exten => _X.,n,Queue(${IDCAMPAIGN})
exten => _X.,n,Noop(QUEUESTATUS:${IDCAMPAIGN})
exten => _X.,n(hangup),AGI(dialer.php,amdstatus,${AMDSTATUS},${CONTACTID},${MEXTEN})
exten => _X.,n,HangUp()
exten => h,n,MYSQL(Connect connid localhost root 123456 dialer)
exten => h,n,MYSQL(Query resultid ${connid} update call_log set amd_status = '${AMDSTATUS}' where
customer = '${CUSTOMER}' and campaign_id = '${IDCAMPAIGN}' and contact_id = '${CONTACTID}')
exten => h,n,MYSQL(Disconnect ${connid})
exten => h,n,AGI(dialer.php,queue,${MEXTEN},${UNIQUEID},${IDCAMPAIGN},${CONTACTID}) ; Só atualiza o
Agent da chamada

 [macro-amd-detection]
exten => s,1,Noop(Answering Machine Detection - AMD)
exten => s,n,MYSQL(Connect connid localhost root 123456 dialer)
exten => s,n,MYSQL(Query resultid ${connid} SELECT amd_initialSilence, amd_greeting,
amd_afterGreetingSilence, amd_totalAnalysis, amd_miniumWordLength, amd_betweenWordSilence,
amd_maximumNumberOfWords, amd_silenceThreshold from settings)
exten => s,n,MYSQL(Fetch foundRow ${resultid} amd_initialSilence amd_greeting
amd_afterGreetingSilence amd_totalAnalysis amd_miniumWordLength amd_betweenWordSilence
amd_maximumNumberOfWords amd_silenceThreshold)
exten => s,n,MYSQL(Clear ${resultid})
exten => s,n,MYSQL(Disconnect ${connid})
exten => s,n,Set(CALLDATE=${STRFTIME(${EPOCH},,%Y-%m-%d %H:%M:%S)})
;exten => s,n,Background(beep)
exten => s,n,AMD(${amd_initialSilence}, ${amd_greeting}, ${amd_afterGreetingSilence},
${amd_totalAnalysis}, ${amd_miniumWordLength}, ${amd_betweenWordSilence},
```

${amd_maximumNumberOfWords}, ${amd_silenceThreshold})

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- voip-info: [Answering Machine Detect (AMD)](#)
- voip-info: [Asterisk cmd BackGroundDetect](#)
- asterisk.org: [AMD](#)
- asterisk-users: [How to tune Asterisk AMD - Answering Machine Detection "hacks"](#)
- asterisk-users: [Voice Mail beep / tone detection](#)