

CRM CHALLENGE

...to have good CRM for sales and calling

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vTiger CRM 5.2.0 - Asterisk integration, inbound calls (pop-ups) problem

Friday, 01 October 2010 15:05 administrator



New release of great software vTiger 5.2.0. Problem of misterious incoming calls pop-up windows persist but can be solved faster when in 5.1.0. "Solved" normally work out not for all who read such kind of articles - but hopefully some will benefit from it anyway.

In some easy steps we try to achieve incoming calls pop-up appear, and appear correctly.

1. vTiger 5.2.0 instalation

Lets make fresh installation of vTiger 5.2.0, just make it working as usually.

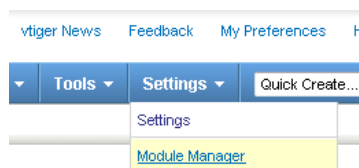
2. Try to do it as intended by original software.

Configure PBXManager for your Asterisk server.

Login as admin



Lets configure PBX Manager



Блог для разработчиков Joomla.

Регистрация доменов ireqs.ru низкие цены.

LATEST NEWS

[General approach to fixing Vtiger CRM incoming calls pop-up + small video](#)

[vTiger CRM 5.2.0 - Asterisk integration, inbound calls \(pop-ups\) problem](#)

[Vtiger CRM 5.1.0, Asterisk Integration, inbound calls problem](#)

ARTICLE(S) WILL APPEAR SOON... (NOW BEING WRITTEN)

1. Test-drive of some software for showing IP PBX incoming calls pop-up window (ADA, ASTAssistant, 3cx assistant and some more) and its CRM integration (incl.vtiger as alternative to PBXManager).

2. OpenTaps ERP + CRM incoming call pop-up window - make it working


OTHER ABC7.EU FREE-HOSTED SITES

<http://remote-power-switch.abc7.eu>

Standard Modules

Custom Modules

Accounts	✓	✎
Assets	✓	✎
Calendar	✓	✎
Campaigns	✓	✎
Contacts	✓	✎
CustomerPortal	✓	
Dashboards	✓	
Documents	✓	✎
Email	✓	
FAQ	✓	✎
FieldFormulas	✓	
Trouble Tickets	✓	✎
Home	✓	
Invoice	✓	✎
Leads	✓	✎
ModComments	✓	✎
PBX Manager	✓	✎



Settings > SoftPhone Server Settings

Configure your softphone here

Asterisk Configuration

Asterisk server IP

Asterisk server port

Asterisk username

Asterisk password

Asterisk Version

Update

Cancel

Fill it with your data (only IP and Username, Password and Version are necessary)

First problem starts here. The vTiger PBX Manager Module **not showing Asterisk version** for choosing. Even if you fill it with your Asterisk server data it **will not work anyway** even with all other fixes done - it is checked! Anyway fill in available fields and click **Update**.

I fixed it for myself via phpmyadmin by writing directly to SQL table.

vtiger_announcement

vtiger_assets

vtiger_assetscf

vtiger_assetstatus

vtiger_assetstatus_seq

vtiger_asterisk

vtiger_asteriskextensions

vtiger_asteriskincomingcalls

vtiger_asteriskincomingevents

vtiger_attachments

vtiger_attachmentsfolder

Showing rows 0 - 0 (~1¹ total, Query took 0.0022 sec)

```
SELECT *
FROM `vtiger_asterisk`
LIMIT 0 , 30
```

Show: 30 row(s) starting from record # 0
in horizontal mode and repeat headers after 100

+ Options

	server	port	username	password	version
<input type="checkbox"/>	[redacted]	[redacted]	[redacted]	[redacted]	

Check All / Uncheck All With selected: [edit] [delete] [refresh]

Show: 30 row(s) starting from record # 0
in horizontal mode and repeat headers after 100

Query results operations

Print view Print view (with full texts) Export CREATE VIEW

Server: localhost Database: vt-test Table: vtiger_asterisk

Field	Type	Function	Null	Value
server	varchar(30)		<input type="checkbox"/>	[redacted]
port	varchar(30)		<input type="checkbox"/>	[redacted]
username	varchar(50)		<input type="checkbox"/>	[redacted]
password	varchar(50)		<input type="checkbox"/>	[redacted]
version	varchar(50)		<input type="checkbox"/>	

Go

Server: localhost Database: vt-test Table: vtiger_asterisk

Field	Type	Function	Null	Value
server	varchar(30)		<input type="checkbox"/>	[redacted]
port	varchar(30)		<input type="checkbox"/>	[redacted]
username	varchar(50)		<input type="checkbox"/>	[redacted]
password	varchar(50)		<input type="checkbox"/>	[redacted]
version	varchar(50)		<input type="checkbox"/>	1.6


Go

+ Options

	server	port	username	password	version
<input type="checkbox"/>	[redacted]	[redacted]	[redacted]	[redacted]	1.6

Check All / Uncheck All With selected: [edit] [delete] [refresh]

Now go to vTiger PBX Manager module again and check:

 **Settings > SoftPhone Server Settings**
Configure your softphone here

Asterisk Configuration

Asterisk server IP	[redacted]
Asterisk server port	[redacted]
Asterisk username	[redacted]
Asterisk password	[redacted]
Asterisk Version	1.6 1.6 1.4

We configured PBX Manager.

Now configure **My Preferences** by filling in your Asterisk Extension and check Receive incoming calls.

- Now you ready for test with original vTiger files .
- a. Start in separate window this script <http://{your vTiger domain name}/cron/modules/PBXManager/AsteriskClient.php>
 - b. Switch to your vTiger browser window configured for your Asterisk Extension and initiate call to your Asterisk Extension from some other phone .
 - c. Wait for Incoming call pop-up window . If you don't see it - original files not worked for you and you need to read further.

3. Making vTiger Asterisk incoming call pup-up windows working (the magic starts here)

Making vTiger Asterisk incoming call pup-up windows working is all about this file

<http://{your vTiger domain name}/cron/modules/PBXManager/AsteriskClient.php>

Now you can just download this file named 520AsteriskClient.php (zipped) and upload it to <http://{your vTiger domain name}/cron/modules/PBXManager/> - lay it down next to AsteriskClient.php (just for keeping all original files on its own places).

[Modified AsteriskClient.php for vTiger 5.2.0 - All Asterisk versions](#)

This file - is not universal solution. Modified PHP-file make it a little bit simplier but not as flexible as intended by developers. Anyway it worked fine for me so I share.

In the next article I will explain what and why was fixed in this AsteriskClient.php file so if it is not working for you - you be able to look for solution by yourself.

After this you can launch in your browser link <http://{your vTiger domain name}/cron/modules/PBXManager/520AsteriskClient.php> and try making incoming calls to your Asterisk extension while watching in your vTiger.

This should look like this (note incoming call popup window below):

Settings > Module Manager

Manage module behavior inside vtiger CRM

Standard Modules	Custom Modules
Accounts	<input checked="" type="checkbox"/>
Assets	<input checked="" type="checkbox"/>
Calendar	<input checked="" type="checkbox"/>
Campaigns	<input checked="" type="checkbox"/>
Contacts	<input checked="" type="checkbox"/>
CustomerPortal	<input checked="" type="checkbox"/>
Dashboards	<input checked="" type="checkbox"/>
Documents	<input checked="" type="checkbox"/>
Email	<input checked="" type="checkbox"/>
FAQ	<input checked="" type="checkbox"/>
FieldFormulas	<input checked="" type="checkbox"/>
Trouble Tickets	<input checked="" type="checkbox"/>
Home	<input checked="" type="checkbox"/>
Invoice	<input checked="" type="checkbox"/>
Leads	<input checked="" type="checkbox"/>
ModComments	<input checked="" type="checkbox"/>
PBX Manager	<input checked="" type="checkbox"/>
Our Sites	<input checked="" type="checkbox"/>
Potentials	<input checked="" type="checkbox"/>

Incoming Call

Caller Information

Number : 123456789

Name : +123456789

Information from Vtiger

Create Lead

Create Contact

Create Account

This window tell us about incoming call from person with phone number not stored in vTiger.

Lets Create the Lead

Basic Information

More Information

Save

Cancel

Lead Information

First Name	--None--		Lead No	AUTO GEN ON SAVE
*Last Name			Phone	123456789
*Company			Mobile	
Title			Fax	
Lead Source	--None--		Email	
Lead Status	--None--		*Assigned To	<input checked="" type="radio"/> User <input type="radio"/> Group admin

Now lets make a call again. Note the window below now show information about caller as its phone already stored in vTiger.

Search

Go to Advanced Search

Search for

In

Lead No

Search Now

[x]

A

B

C

D

E

F

G

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W

X

Y

Z

Delete	Send Mail	Mass Edit	Send SMS	Showing Records 1 - 1 of 1	<div> <div></div> <div>1</div> <div>of 1</div> <div></div> </div>	Filters: All	New Edit Delete	
<input type="checkbox"/> Lead No	Last Name	First Name	Company	Phone	Website	Email	Assigned To	Action
<input type="checkbox"/> LEA2	test_lastname	test_firstname	test_company	123456789			admin	edit del

Delete

Send Mail

Mass Edit

Send SMS

Showing Records 1 - 1 of 1

1

of 1

Create Mail Merge templates

<http://{your vTiger domain name}/modules/PBXManager/utis/AsteriskClass.php>

P.S. Anyway in this new version of vTiger this AsteriskClient.php is done much better and works more stable!

```
#/usr/bin/php
<?php
/*+
*****
* The contents of this file are subject to the vtiger CRM Public License Version 1.0
* ("License"); You may not use this file except in compliance with the License
* The Original Code is: vtiger CRM Open Source
* The Initial Developer of the Original Code is vtiger.
* Portions created by vtiger are Copyright (C) vtiger.
* All Rights Reserved.
*****
/
```

```
@ini_set('error_reporting', E_WARNING & ~E_NOTICE);
```

Incoming Call

Caller Information
Number : 123456789
Name : +123456789

Information from Vtiger
[test_lastname](#) [test_firstname](#) [Leads]

```

chdir('..../..');

# In case chdir is not permitted
# ini_set('include_path','../..');
require_once ('config.php');
require_once ('include/utlis/utlis.php');
require_once ('include/language/en_us.lang.php');
require_once ('modules/PBXManager/utlis/AsteriskClass.php');
require_once ('modules/PBXManager/AsteriskUtils.php');

main__asteriskClient();

function main__asteriskClient() {
    global $app_strings, $current_user;
    global $adb, $log;

    $data = getAsteriskInfo($adb);

    $errno = $errstr = null;
    $sock = @fsockopen($data['server'], $data['port'], $errno, $errstr, 1);
    stream_set_blocking($sock, false);

    if($sock === false) {
        echo "Socket cannot be created due to errno [$errno] - $errstr";
        $log->debug("Socket cannot be created due to errno [$errno] - $errstr");
        exit(0);
    }

    echo "Connecting to asterisk server @ " . date("Y-m-d H:i:s") . "\n";
    $log->debug("Connecting to asterisk server @ " . date("Y-m-d H:i:s"));
    echo "Connected successfully\n\n";

    $asterisk = new Asterisk($sock, $data['server'], $data['port']);

    # authorize user first
    authorizeUser($data['username'], $data['password'], $asterisk);

    // Keep looping to poll the asterisk events
    while(true) {
        // Give some break to avoid server hanging
        sleep(1);
        try {
            $incoming = asterisk_handleEvents($asterisk, $adb, $data['version']);
            asterisk_IncomingEventCleanup($adb);
        } catch(Exception $ex) {
            echo "EXCEPTION: " . $ex->getMessage() . "\n";
        }
    }
    fclose($sock);
    unset($sock);
}

/*
 * Delete the stale incoming events information recorded to avoid
 * overgrowth of the database.
 */
function asterisk_IncomingEventCleanup($adb) {
    $HOURLYRANGE = 60 * 60;
    $TIMELIMIT = $HOURLYRANGE * 12; // Delete events older than 'n' hours

    $adb->pquery("DELETE FROM vtiger_asteriskincomingevents WHERE timer < ? ", array(time() - $TIMELIMIT) );
}

/**
 * Grab the events from server, parse it and process it.
 */
function asterisk_handleEvents($asterisk, $adb, $version="1.4") {
    $fnEntryTime = time();
    //Values of flag for asteriskincomingevents (-1 for stray calls, 0 for incoming calls, 1 for outgoing call)
    do {
        $mainresponse = $asterisk->getAsteriskResponse();

        if(empty($mainresponse)) {
            $state = ($version == "1.6")? "ChannelStateDesc" : "State";

            if(asterisk_handleResponse1($mainresponse, $state, $adb)) { echo "iff1";
            if(asterisk_handleResponse2($mainresponse, $adb, $asterisk, $state)) { echo "iff2";
            if(asterisk_handleResponse3($mainresponse, $adb, $asterisk)){ echo "iff3";
            // Proceed if previous event could not be handled.
            }
        }
    } else {
        // No more response to consume
        break;
    }
}

```

```

}
} while(true);

return false;
}

function asterisk_handleResponse1($mainresponse, $state, $adb) {
if(
((($mainresponse['Event'] == 'Newstate' || $mainresponse['Event'] == 'Newchannel') && ($mainresponse[$state] == 'Ring')
|| ($mainresponse['Event'] == 'Newstate' && $mainresponse[$state] == 'Ringing'))
){

$uniqueid = $mainresponse['Uniqueid'];
/* fix1
if(empty($mainresponse['CallerID'])) {
$callerNumber = $mainresponse['CallerID'];
}elseif(empty($mainresponse['CallerIDNum'])) {
$callerNumber = $mainresponse['CallerIDNum'];
}*/
if(empty($mainresponse['CallerIDName'])) {
$callerName = $mainresponse['CallerIDName'];
}
$channel = $mainresponse['Channel'];
/* fix2 */ $callerNumber = $callerName;
$sql = "INSERT INTO vtiger_asteriskincomingevents
(uid, channel, from_number, from_name, timer, flag) VALUES(?,?,?,?,-1)";
$adb->pquery($sql, array($uniqueid, $channel, $callerNumber, $callerName, time(), -1));

return false;
}
return true;
}

function asterisk_handleResponse2($mainresponse, $adb, $asterisk, $state) {
$appdata = $mainresponse['AppData'];

$uniqueid = $channel = $callerType = $extension = null;
$parseSuccess = false;

if(
// fix3 $mainresponse['Event'] == 'Newexten' && (strpos($appdata, "__DIALED_NUMBER") || strpos($appdata, "EXTTOCALL"))
($mainresponse['Event'] == 'Newexten') && ($mainresponse['Application'] == 'Dial')
){
$uniqueid = $mainresponse['Uniqueid'];

$channel = $mainresponse['Channel'];
$splits = explode('/', $channel);
$callerType = $splits[0]; //possible fix4 $callerType = ""; or SIP

$splits = explode('=', $appdata);
/* fix5 */ $extension = $mainresponse['Extension'];

$parseSuccess = true;
} else if($mainresponse['Event'] == 'OriginateResponse'){
//if the event is OriginateResponse then its an outgoing call and set the flag to 1, so that AsteriskClient does not pick up as
incoming call
$uniqueid = $mainresponse['Uniqueid'];
$adb->pquery("UPDATE vtiger_asteriskincomingevents set flag = 1 WHERE uid = ?", array($uniqueid));
}

if($parseSuccess) {

if(checkExtension($extension, $adb)) {

$sql = "UPDATE vtiger_asteriskincomingevents SET to_number=?, callertype=?, timer=?, flag=? WHERE uid=?";
$adb->pquery($sql, array($extension, $callerType, time(), 0, $uniqueid));

$callerinfo = $adb->pquery("SELECT from_number,from_name FROM vtiger_asteriskincomingevents WHERE uid =
?",array($uniqueid));

if($adb->num_rows($callerinfo) > 0){
$callerNumber = $adb->query_result($callerinfo, 0, "from_number");
$callerName = $adb->query_result($callerinfo, 0, "from_name");

if(empty($callerNumber) || $callerNumber == '0'){
// We don't have the information who is calling, could happen in Asterisk 1.4 (when call is made to Queue)
// Let us defer the popup show for next Event: Link
$sql = "UPDATE vtiger_asteriskincomingevents SET flag=? WHERE uid=?";
$adb->pquery($sql, array(-1, $uniqueid));
} else {
$query = "INSERT INTO vtiger_asteriskincomingcalls (refuid, from_number, from_name, to_number, callertype, flag, timer)
VALUES(?,?,?,?,?,?)";
$adb->pquery($query,array($uniqueid, $callerNumber, $callerName, $extension, $callerType, 0, time()));
}

}
}

```

```

}
}

return false;
}

return true;
}

function asterisk_handleResponse3($mainresponse, $adb, $asterisk){

$uid = false;
$receiver_callerinfo = false;

// Asterisk 1.4 (Event: Link), Asterisk 1.6 (Event: Bridge, Bridgestate: Link)
if($mainresponse['Event'] == 'Link' || ($mainresponse['Event'] == 'Bridge' && $mainresponse['Bridgestate'] == 'Link')){

$uid = $mainresponse['Uniqueid1'];
$uid2 = $mainresponse['Uniqueid2'];
$callerNumber = $mainresponse['CallerID1'];
$extensionCalled = $mainresponse['CallerID2'];

// Ignore the case wheren CallerIDs are same!
if($callerNumber == $extensionCalled) {
// case handled but we ignored.
return false;
}

$callerType = "";
$status = "received";

$sourceChannel = $mainresponse['Channel1'];

// Check if Popup has already been shown to user?
// Due to (asterisk 1.4 bug: https://issues.asterisk.org/view.php?id=11757)
// Popup display for Call made to queue is deferred and will be handled below
// So we need to pick up events with (flag = 0, asterisk 1.6) or (flag = -1, asterisk 1.4)
// asterisk 1.4 - from_number is NULL,
// TODO check the state of from_number in asterisk 1.6
$checkres = $adb->pquery("SELECT * FROM vtiger_asteriskincomingevents WHERE uid=? and (flag = 0 or flag = -1) and
(from_number is NULL or from_number = 0)", array($uid));
if($adb->num_rows($checkres) > 0) {
if(empty($checkresrow['from_name'])) $checkresrow['from_name'] = "Unknown";

$checkresrow = $adb->fetch_array($checkres);
$sql = "UPDATE vtiger_asteriskincomingevents SET from_number=?, to_number=?, timer=?, flag=? WHERE uid=?";
$adb->pquery($sql, array($callerNumber, $extensionCalled, time(), 0, $uid));

// Check if the user has checked Incoming Calls in My Preferences
if(checkExtension($extensionCalled, $adb)) {
$query = "INSERT INTO vtiger_asteriskincomingcalls (refuid, from_number, from_name, to_number, callertype, flag, timer)
VALUES(?,?,?, ?, ?, ?)";
$adb->pquery($query, array($uid, $callerNumber, $checkresrow['from_name'], $extensionCalled, "", 0, time()));
}
}
// END
} else if($mainresponse['Event'] == 'Newexten' && $mainresponse['AppData'] == "DIALSTATUS=CONGESTION" ||
$mainresponse['Event'] == 'Hangup'){
$status = "missed";
$uid = $mainresponse['Uniqueid'];
$extensionCalled = false;

}

// TODO Need to detect the caller number using the Event Information
$callerNumberInfo = $adb->pquery("SELECT from_number, callertype FROM vtiger_asteriskincomingevents WHERE uid=?
AND from_number is not NULL LIMIT 1", array($uid));
if($callerNumberInfo && $adb->num_rows($callerNumberInfo)) {
$callerNumber = $adb->query_result($callerNumberInfo, 0, 'from_number');
$receiver_callerinfo = getCallerInfo($callerNumber);
}

if($uid !== false) {
// Create Record if not yet done and link to the event for further use
$eventResult = $adb->pquery("SELECT * FROM vtiger_asteriskincomingevents WHERE uid = ? and pbxrecordid is NULL
AND flag = 0", array($uid));

if($adb->num_rows($eventResult)){

$eventResultRow = $adb->fetch_array($eventResult);

$callerNumber = $eventResultRow['from_number'];

if($extensionCalled === false) {
$extensionCalled = $eventResultRow['to_number'];

```



```
}

// If we are not knowing the caller informatio (Asterisk 1.4, Event: Link not yet called)
if($callerNumber != 'Unknown' && $callerNumber != '0') {
$pbxrecordid = addToCallHistory($extensionCalled, $callerNumber,
$extensionCalled , "incoming-$status", $adb, $receiver_callerinfo);
$adb->pquery("UPDATE vtiger_asteriskincomingevents SET pbxrecordid = ? WHERE uid = ?", array($pbxrecordid, $uid));
if(!empty($receiver_callerinfo['id'])) {
$adb->pquery("UPDATE vtiger_asteriskincomingevents SET relcrmId = ? WHERE uid = ?", array($receiver_callerinfo['id'],
$uid));
}
}
return false;
}
}
return true;
}

/**
 * Check if extension is configured to user in vtiger
 */
function checkExtension($ext, $adb){
$sql = "select 1 from vtiger_asteriskextensions where asterisk_extension=?";
$result = $adb->pquery($sql, array($ext));

if($adb->num_rows($result)>0){
return true;
}else{
return false;
}
}
```

If you feel passion to do it all yourself from scratch you may like this article describing general approach to fixing all these problems [General approach to fixing VTiger CRM incoming calls pop-up + small video](#)

Last Updated on Friday, 05 November 2010 10:24

COMMENTS

<div>123</div>		
#30	Giampaolo 2013-06-25 14:14	0
Hi The 520AsteriskClient.php zipped file is corrupt. I can not seem to unzip you can put it back available? Thank		
		Quote
#29	Pawan 2013-06-24 07:48	0
hi all, Please help me in integration of asterisk with vtiger 5.2.0 or 5.4.0 with step by step. I tried with both but m still not get it working.		
Thanks,		Quote
#28	jihane 2013-04-15 11:58	0
I installed VTiger under Windows server 2003and want to connect imy Asterisk 1.8 I see in the PBX Manager of VTiger 5.4 there is no option to select Asterisk 1.8 in the dropdown list and after saving this PBX manager configuration by selecting only Asterisk 1.6 I still have : Not allowet to write in Single_PBXManager The question is how can I config the VTiger 5.4 in order to connect to Asterisk 1.8 ? Awaiting your prompt respond and thank you very much in advance		
		Quote
#27	trung 2013-02-22 16:58	+1
is it work for vtiger 5.4.0??		
		Quote
#26	Kendall 2012-07-12 23:25	0
Quote: <div>Make sure you have incoming calls allowed in the user profile inside of vtiger.</div>		
Yup they are. any other ideas?		Quote
#25	François 2012-05-07 14:09	0
Hi everyone. I've got a problem with my PBX configuration. When I run "domain_name]/vtigercrm/cron/modules/PBXManager/AsteriskClient.php" I always have the same error : #!/usr/bin/php Warning: stream_set_blocking() expects parameter 1 to be resource, boolean given in /var/www/vtigercrm/cron/modules/PBXManager/AsteriskClient.php on line 34 Socket cannot be created due to errno [111] - Connection refused Error 111 means connection refused		

Quote

0

Quote

+1

Quote

+4

Quote

0

Quote

RSS feed for comments to this post

Send

JComments