

الصوت عبر بروتوكول الإنترنت VoIP

مواضيع خاصة
م. غنام الجعبري

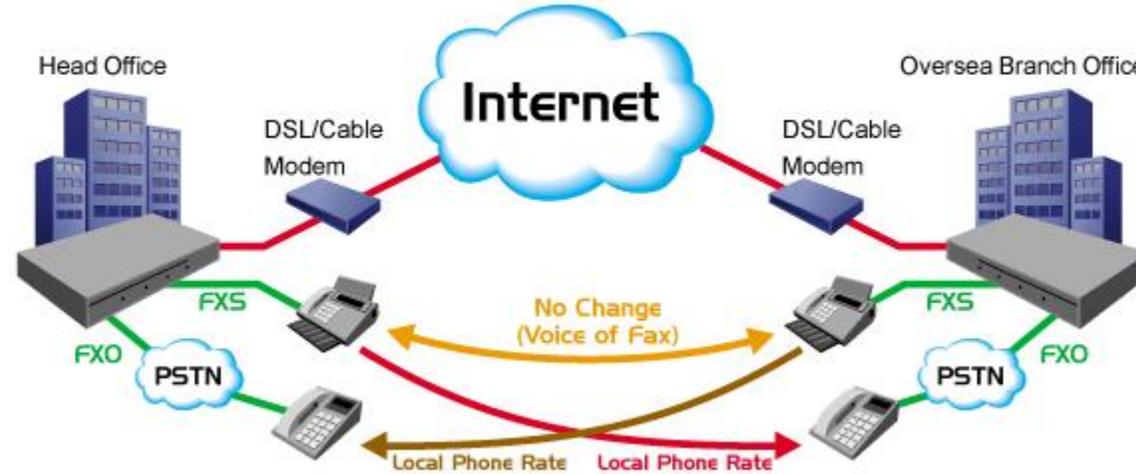
ما المقصود بـ VoIP؟

- الصوت عبر بروتوكول الإنترنت (VoIP) يشير الى طريقة نقل المكالمات الهاتفية عبر شبكة الحاسوب أو الإنترنت بدلا من شبكة الاتصالات الهاتفية

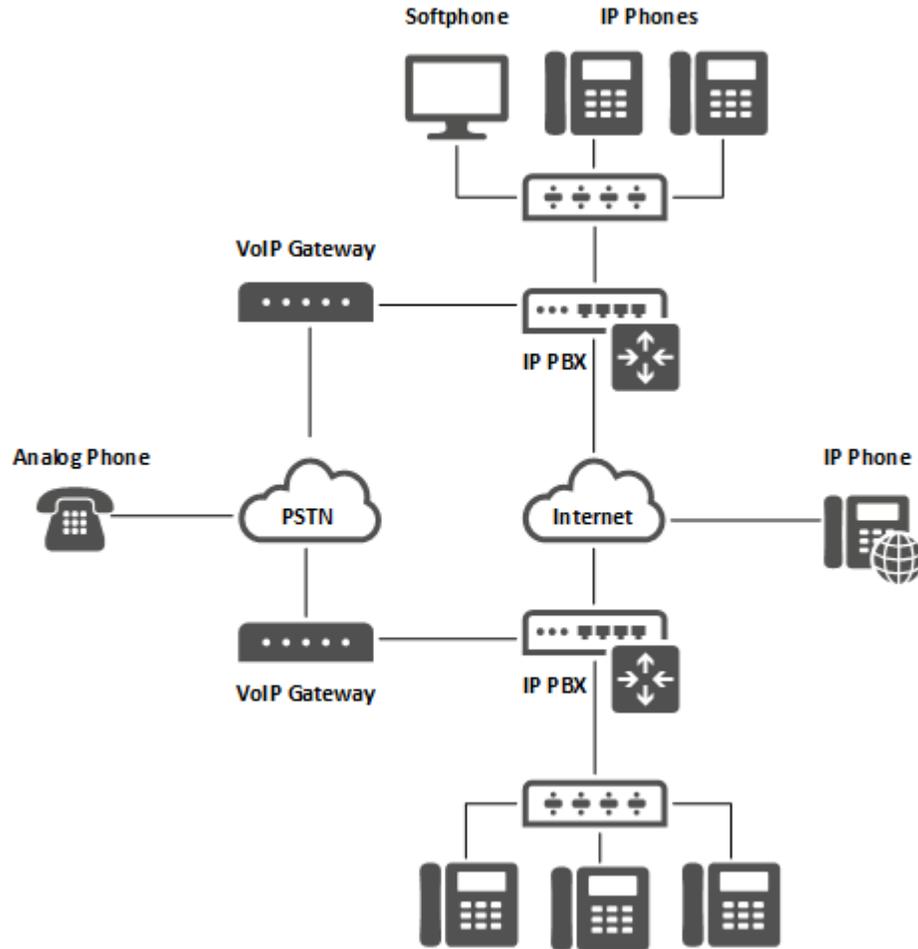


نظام هاتف VoIP

- نظام هاتف VoIP أو مقسم الهاتف الفرعي (IP PBX) يتيح إجراء واستقبال المكالمات الهاتفية عبر شبكة الحاسوب أو الإنترنت
- يدعم نظام هاتف VoIP الهواتف الثابتة التقليدية (ATA) وهواتف VoIP وبرامج الإتصال الهاتفي (Softphone) بالإضافة إلى تحويل المكالمات عبر شبكة الهاتف الثابت (PSTN) وشبكة الهاتف الخليوي (Mobile) ومزودي خدمة VoIP عبر الإنترنت



مكونات نظام هاتف VoIP



- مقسم هاتفي فرعي (IP PBX)
- موزع شبكة (Switch)
- هاتف VoIP (IP Phone)
- هاتف تقليدي (Analog Phone)
- برنامج للإتصال الهاتفي (Softphone)
- عبّارة VoIP (Gateway)
- خط هاتف داخلي (FXS)
- خط هاتف خارجي (FXO)

مميزات نظام هاتف VoIP

- تقليل النفقات لأن المكالمات الهاتفية تتم عبر شبكة الحاسوب بدلاً من شبكة خاصة للاتصالات الهاتفية
- تقليل تكلفة المكالمات الدولية لأن المكالمات الهاتفية تتم من خلال مزودي خدمة VoIP عبر الانترنت
- العديد من المزايا مثل المكالمات الجماعية والبريد الصوتي والرد الآلي وتحويل المكالمات وتعليقها
- الاستفادة من الخدمات المضافة مثل دليل الهاتف والفوترة
- توحيد كافة اشكال الاتصالات بصرف النظر عن الموقع والوقت والجهاز

مقارنة بين نظام هاتف تقليدي ونظام هاتف VoIP

نظام هاتف VoIP	نظام هاتف تقليدي	
يرتكز على تحويل الحزمة	يرتكز على تحويل الدارة	تحويل المكالمات
لا يحتاج الى حجز خط	يحتاج الى حجز خط	انشاء اتصال
يسمح بمشاركة الخط	لا يسمح بمشاركة الخط	مشاركة الخط
تتبع بيانات المكالمات مسارات متعددة	تتبع المكالمات نفس المسار	مسار المكالمات
تصل بيانات الصوت في اوقات مختلفة	يصل الصوت في الوقت نفسه	نقل الصوت
يحتاج الى ضبط جودة الخدمة	لا يحتاج الى ضبط جودة الخدمة	جودة الصوت

تثبيت نظام هاتف VoIP

- يعد Asterisk من اشهر خوادم VoIP مفتوحة المصدر التي تستخدم على نطاق واسع في ارسال واستقبال المكالمات الهاتفية عبر الشبكة
- يستخدم FreePBX في ادارة Asterisk من خلال متصفح الويب
- يمكن تثبيت FreePBX على جهاز فيزيائي او افتراضي يعمل بنظام التشغيل لينكس



تثبيت نظام هاتف VoIP

- الخطوة الاولى: تثبيت نظام التشغيل Debian
- الخطوة الثانية: تثبيت نظام FreePBX على نظام Debian
- الخطوة الثالثة: الاعداد الاولى لنظام FreePBX بعد التثبيت



FreePBX Administration



User Control Panel



Get Support



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اعداد نظام هاتف VoIP

- اعداد الخطوط الفرعية (Extensions)
- اعداد الخطوط الرئيسية (Trunks)
- بروتوكول SIP: ربط الخطوط الرئيسية مع مزودي خدمة VoIP
- بروتوكول IAX: ربط الخطوط الرئيسية مع انظمة هاتف VoIP المبينة على Asterisk
- اعداد المكالمات الصادرة (Outbound Routes)
- اعداد المكالمات الواردة (Inbound Routes)
- اعداد الرد الآلي (IVR)

اعداد الخطوط الفرعية على FreePBX

• اذهب الى Connectivity > Extensions

The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.111/admin/config.php#`. The navigation menu includes **Admin**, **Applications**, **Connectivity**, **Dashboard**, **Reports**, **Settings**, and **UCP**. The **Connectivity** menu is open, showing a list of options: API, Custom Contexts, Custom Contexts Admin, DAHDI Channel DIDs, **Extensions** (highlighted), Firewall, Inbound Routes, Metered SIP trunking, Outbound Call Limit, Outbound Routes, SIPSTATION, SMS Webhook, and Trunks. The main content area features a 'FreePBX - Let Freedom Ring Feed' with news items, a 'Sangoma Technologies Feed' with articles, and 'FreePBX Statistics' with a graph for Asterisk uptime, CPU, memory, disk, and network usage. A 'Live Network Usage' section is visible at the bottom.

اعداد الخطوط الفرعية على FreePBX

• انقر على + لاضافة SIP Extension

FreePBX Administration

192.168.0.111/admin/config.php?display=extensions

Admin Applications Connectivity Dashboard Reports Settings UCP

All Extensions SIP [chan_pjsip] Extensions Virtual Extensions DAHDI Extensions IAX2 Extensions Custom Extensions

+ Add Extension - Quick Create Extension Delete Search

- + Add New SIP [chan_pjsip] Extension
- + Add New Virtual Extension
- + Add New DAHDI Extension
- + Add New IAX2 Extension
- + Add New Custom Extension

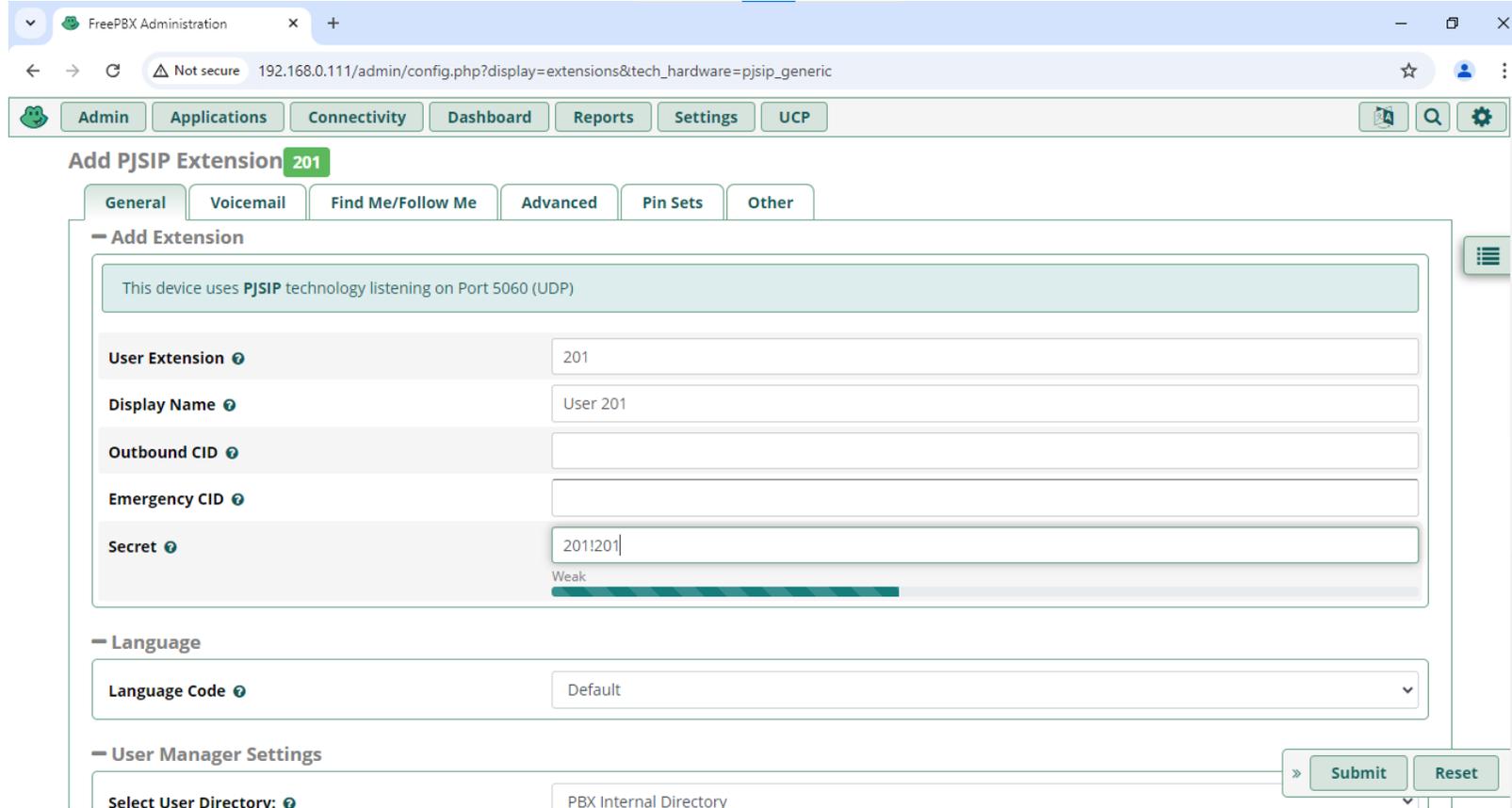
CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
No matching records found							

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192.168.0.111/admin/config.php?display=extensions&tech_hardware=pjsip_generic

اعداد الخطوط الفرعية على FreePBX

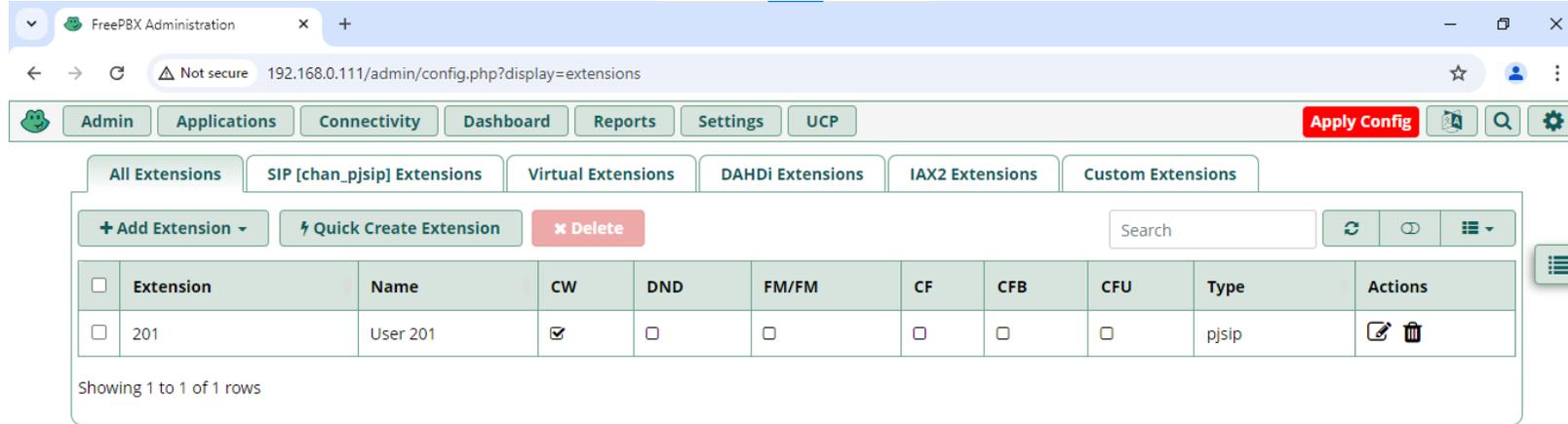
- ادخل الرقم الفرعي واسم المستخدم وكلمة المرور ثم انقر على Submit لحفظ الاعدادات



The screenshot shows the FreePBX Administration interface in a web browser. The browser address bar displays the URL: 192.168.0.111/admin/config.php?display=extensions&tech_hardware=pjsip_generic. The interface includes a navigation menu with tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'Add PJSIP Extension 201' and features several tabs: General, Voicemail, Find Me/Follow Me, Advanced, Pin Sets, and Other. The 'General' tab is active, showing the 'Add Extension' section. This section includes a note: 'This device uses PJSIP technology listening on Port 5060 (UDP)'. Below this, there are input fields for 'User Extension' (201), 'Display Name' (User 201), 'Outbound CID', 'Emergency CID', and 'Secret' (201!201). A strength indicator for the secret shows 'Weak'. Below the 'Add Extension' section is the 'Language' section with a 'Language Code' dropdown set to 'Default'. At the bottom is the 'User Manager Settings' section with a 'Select User Directory:' dropdown set to 'PBX Internal Directory'. 'Submit' and 'Reset' buttons are located at the bottom right of the form.

اعداد الخطوط الفرعية على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: 192.168.0.111/admin/config.php?display=extensions. The page features a navigation menu with tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A prominent red 'Apply Config' button is visible in the top right corner. Below the navigation, there are tabs for extension types: All Extensions, SIP [chan_pjsip] Extensions, Virtual Extensions, DAHDI Extensions, IAX2 Extensions, and Custom Extensions. The main content area includes a '+ Add Extension' button, a 'Quick Create Extension' button, and a 'Delete' button. A search bar and several utility icons are also present. The table below lists the extensions:

<input type="checkbox"/>	Extension	Name	CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
<input type="checkbox"/>	201	User 201	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip	 				

Showing 1 to 1 of 1 rows

اعداد برنامج الاتصال الهاتفي

- قم بتثبيت برنامج الاتصال الهاتفي على جهاز الحاسوب ثم اعداد الخطوط الفرعية في البرنامج لاجراء واستقبال المكالمات الهاتفية

Account settings

Account name: User 201
Caller ID: 201

Credentials
Enter your SIP account credentials
Extension: 201
ID: 201
Password: *****

My location
Specify the IP of your PBX/SIP server
 I am in the office - local IP 192.168.0.111 of PBX
 I am out of the office - external IP of PBX

Use 3CX Tunnel
Eliminates firewall configuration. Requires 3CX Phone System for Windows
Local IP of remote PBX: 192.168.0.110
Tunnel password: *** Port: 5090

Use Outbound Proxy server
Required by some VoIP Providers. Specify IP or name.

Perform provisioning from following URL:
http://

Advanced settings OK Cancel

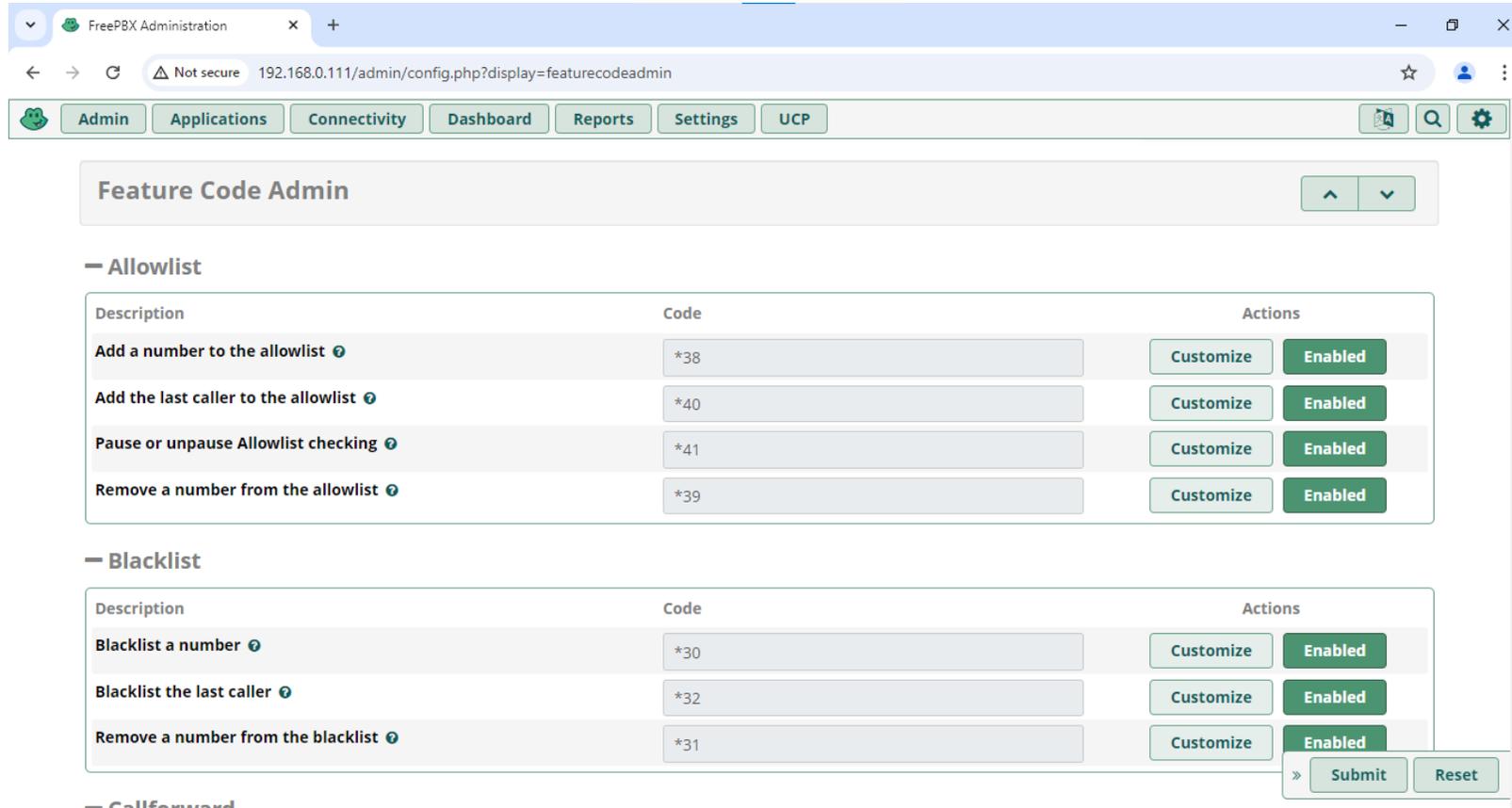


الرموز المختصرة على FreePBX

- يمكن استخدام الرموز المختصرة (Feature Codes) في الهواتف للتحكم بالأرقام الفرعية والبريد الصوتي والمكالمات الهاتفية
- وظائف أساسية
 - *8 – استلام المكالمات (Call Pickup)
 - *2 – تحويل المكالمات مع اشعار (Attended Transfer)
 - ## – تحويل المكالمات بدون اشعار (Blind Transfer)
- خدمات الاستعلام
 - *43 – اختبار الصوت (Echo Test)
 - *60 – الساعة الناطقة (Speaking Clock)
 - *65 – معرفة رقمك الفرعي (Speak Your Extension Number)

الرموز المختصرة على FreePBX

- اذهب الى Admin > Feature Codes لاستعراض الرموز المختصرة



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: 192.168.0.111/admin/config.php?display=featurecodeadmin. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled "Feature Code Admin" and is divided into two sections: "Allowlist" and "Blacklist".

Allowlist

Description	Code	Actions
Add a number to the allowlist	*38	Customize Enabled
Add the last caller to the allowlist	*40	Customize Enabled
Pause or unpause Allowlist checking	*41	Customize Enabled
Remove a number from the allowlist	*39	Customize Enabled

Blacklist

Description	Code	Actions
Blacklist a number	*30	Customize Enabled
Blacklist the last caller	*32	Customize Enabled
Remove a number from the blacklist	*31	Customize Enabled

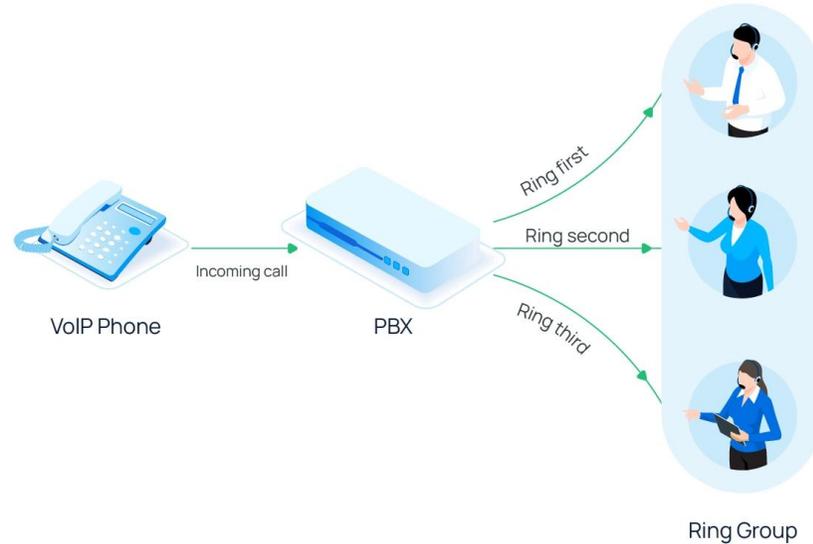
At the bottom right of the page, there are buttons for "Submit" and "Reset".

تمرين: اعداد مقسم هاتفي فرعي مع ارقام داخلية

- انت مسؤول عن مقسم هاتفي فرعي (PBX) في شركة تتكون من قسم المبيعات وقسم الدعم الفني وموظف الاستعلامات، ولديك مهمة اعداد المقسم الهاتفي لادارة المكالمات بشكل فعال
- المطلوب:
- اعداد الارقام الداخلية: 201 لقسم المبيعات، 202 لقسم الدعم الفني، 200 لموظف الاستعلامات
- اختبر هذه الاعدادات على برنامج الاتصال الهاتفي للتأكد من انها تعمل كما هو مطلوب

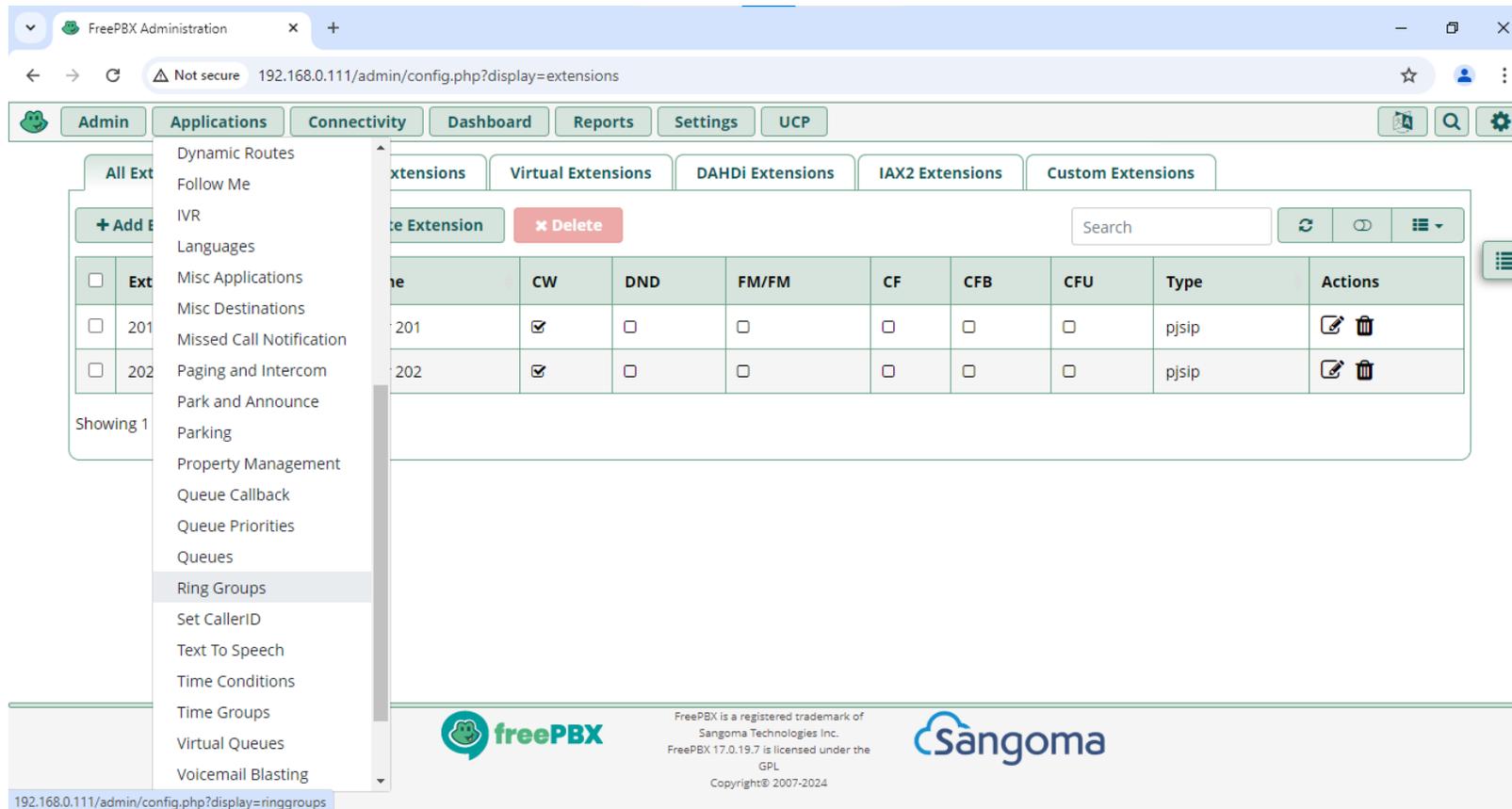
مجموعة الرنين

- تتيح مجموعة الرنين (Ring Group) الاتصال بمجموعة من الأرقام الفرعية في نفس الوقت او واحدا تلو الآخر
- تستخدم عادة لتوزيع المكالمات الواردة على فريق من العاملين في قسم معين مثل المبيعات والدعم الفني والمحاسبة



اعداد مجموعة الرنين على FreePBX

• اذهب الى Applications > Ring Groups



The screenshot shows the FreePBX Administration interface. The left sidebar is open, and the 'Ring Groups' menu item is highlighted. The main content area displays a table of extensions with columns for Extension, CW, DND, FM/FM, CF, CFB, CFU, Type, and Actions. The table contains two rows of data.

Extension	CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
201	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip	 				
202	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip	 				

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اعداد مجموعة الرنين على FreePBX

• انقر على + لاضافة Ring Group



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=ringgroups

Admin Applications Connectivity Dashboard Reports Settings UCP

Ring Groups

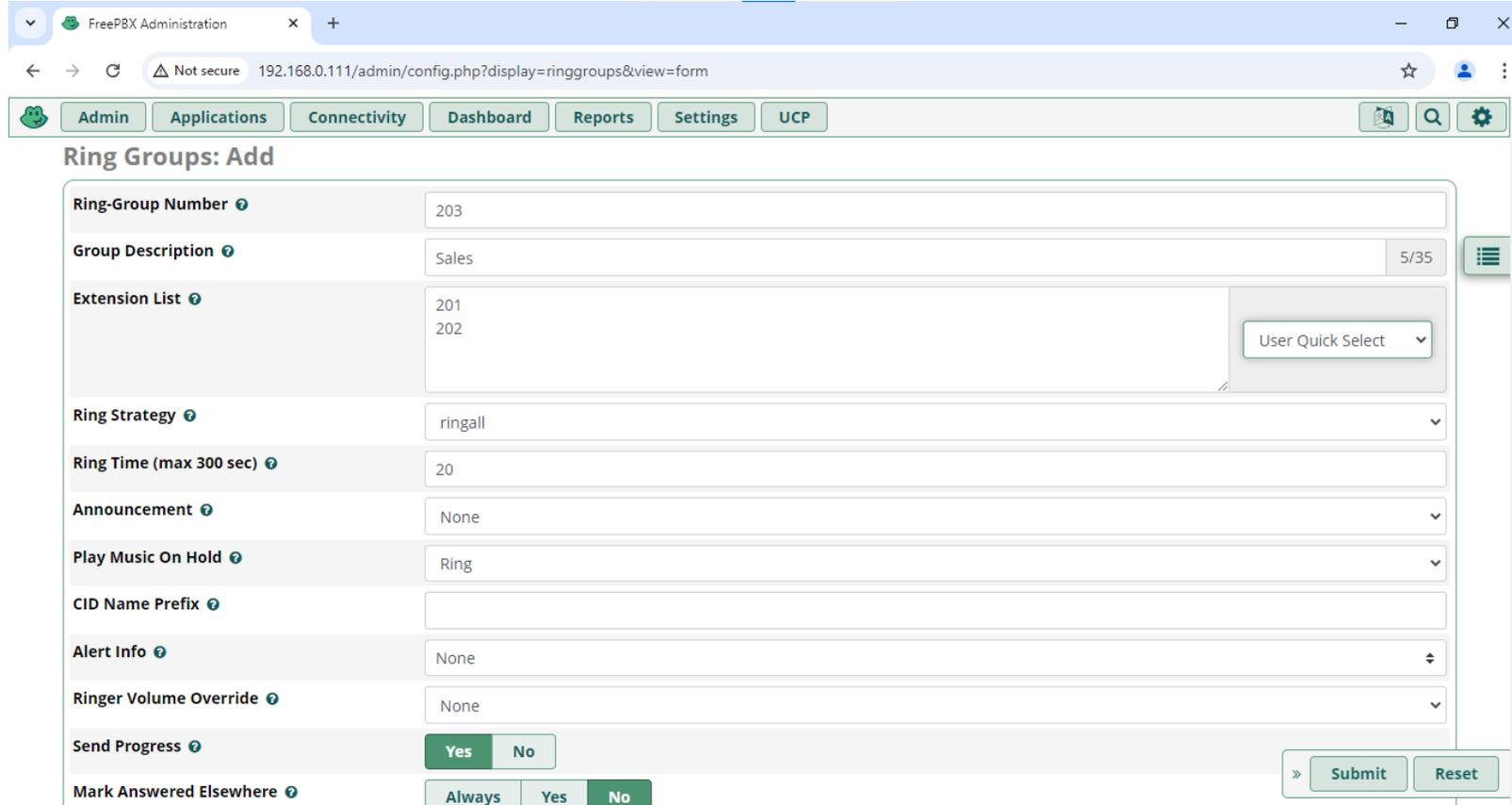
+ Add Ring Group

Search

Ring Group	Description	Actions
No matching records found		

اعداد مجموعة الرنين على FreePBX

- ادخل الرقم الفرعي للمجموعة والوصف ثم اختر الخطوط الفرعية لاضافتها الى المجموعة



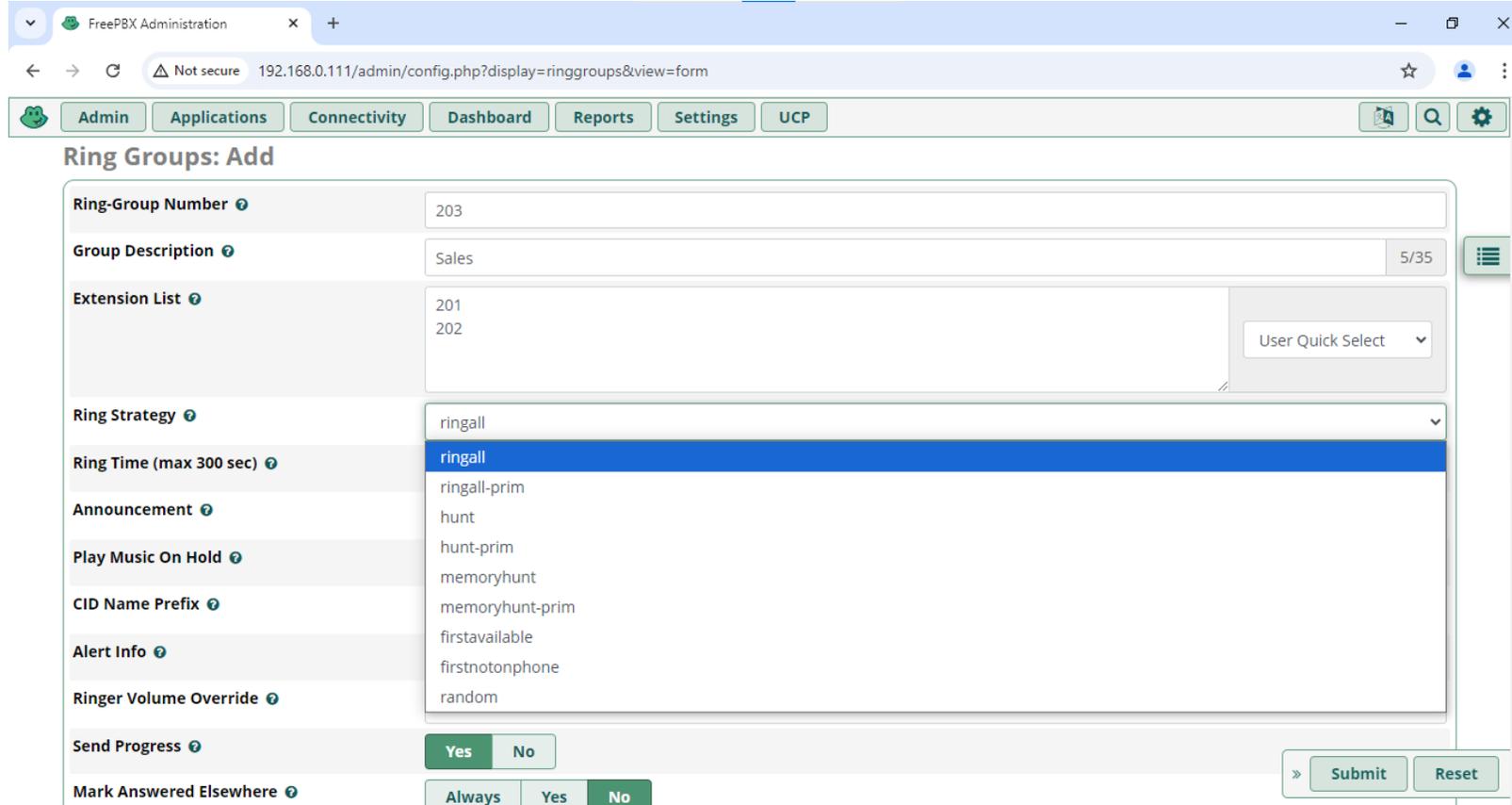
The screenshot displays the 'Ring Groups: Add' configuration page in the FreePBX Administration interface. The browser address bar shows the URL: 192.168.0.111/admin/config.php?display=ringgroups&view=form. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The form fields are as follows:

Ring-Group Number	203
Group Description	Sales (5/35)
Extension List	201 202 (User Quick Select)
Ring Strategy	ringall
Ring Time (max 300 sec)	20
Announcement	None
Play Music On Hold	Ring
CID Name Prefix	
Alert Info	None
Ringer Volume Override	None
Send Progress	Yes No
Mark Answered Elsewhere	Always Yes No

Buttons: Submit, Reset

اعداد مجموعة الرنين على FreePBX

- اختر كيفية توزيع المكالمات الواردة على المجموعة (Ring Strategy)



The screenshot shows the 'Ring Groups: Add' form in the FreePBX Administration interface. The form includes the following fields and options:

- Ring-Group Number:** 203
- Group Description:** Sales (5/35 characters)
- Extension List:** 201, 202 (with a 'User Quick Select' dropdown)
- Ring Strategy:** A dropdown menu is open, showing the following options: ringall (selected), ringall-prim, hunt, hunt-prim, memoryhunt, memoryhunt-prim, firstavailable, firstnotonphone, and random.
- Ring Time (max 300 sec):** (empty)
- Announcement:** (empty)
- Play Music On Hold:** (empty)
- CID Name Prefix:** (empty)
- Alert Info:** (empty)
- Ringer Volume Override:** (empty)
- Send Progress:** Yes (selected), No
- Mark Answered Elsewhere:** Always, Yes, No (No is selected)

At the bottom right, there are 'Submit' and 'Reset' buttons.

اعداد مجموعة الرنين على FreePBX

- اختر وجهة المكالمة الواردة اذا لم يتم الرد عليها (Destination if no answer)

The screenshot shows the FreePBX Administration interface. The browser address bar displays '192.168.0.111/admin/co'. The left sidebar has tabs for 'Admin', 'Applications', and 'Connectivity'. The main content area shows a list of configuration options, with 'Destination if no answer' selected. A dropdown menu is open, showing a list of options including 'Announcements', 'Call Flow Control', 'Call Recording', 'Callback', 'Conference Pro', 'Conferences', 'Custom Applications', 'Custom Contexts', 'DISA', 'Directory', 'Dynamic Routes', 'Extensions', 'Feature Code Admin', 'IVR', 'Inbound Routes', 'Languages', 'Misc Destinations', 'Paging and Intercom', 'Queue Priorities', 'Terminate Call', and 'Hangup'. The 'Submit' and 'Reset' buttons are visible at the bottom right of the form.

اعداد مجموعة الرنين على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays the URL: 192.168.0.111/admin/config.php?display=ringgroups. The navigation menu includes: Admin, Applications, Connectivity, Dashboard, Reports, Settings, UCP, and a red 'Apply Config' button. The main content area is titled 'Ring Groups' and features a '+ Add Ring Group' button and a search input field. Below this is a table with the following data:

Ring Group	Description	Actions
203	Sales	 

Showing 1 to 1 of 1 rows

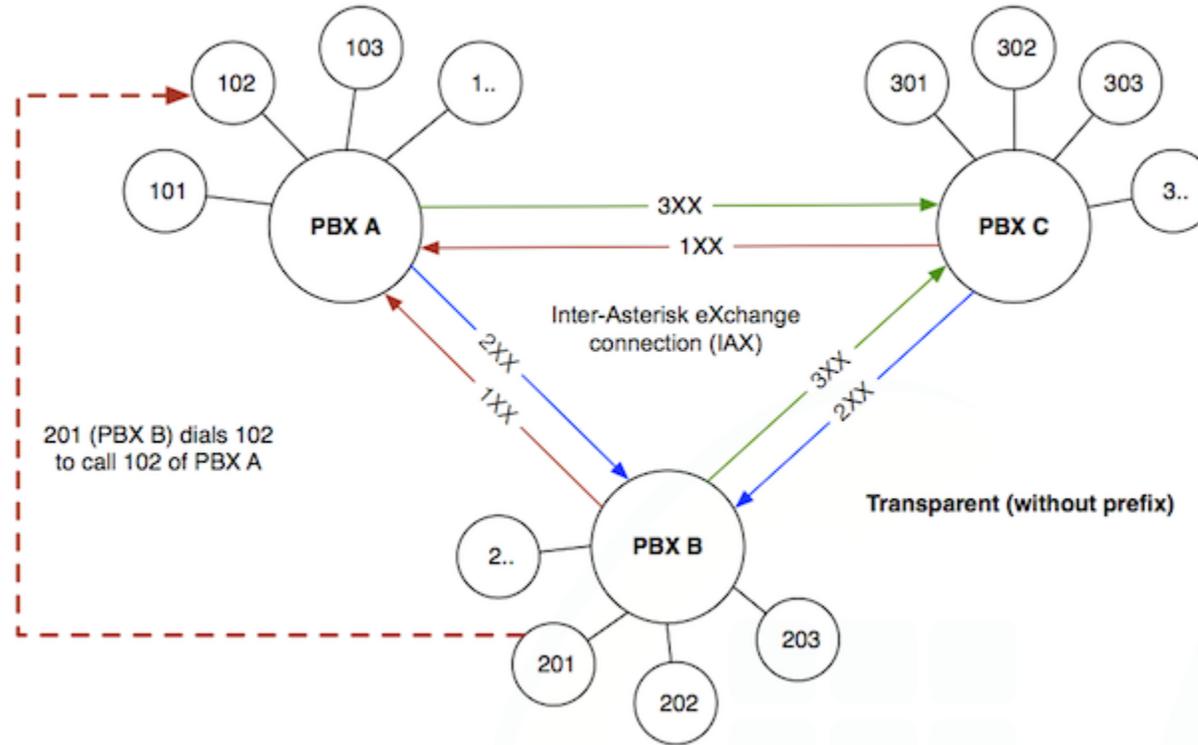
تمرين: اعداد مقسم هاتفي فرعي مع مجموعة رنين

- انت مسؤول عن مقسم هاتفي فرعي (PBX) في شركة تتكون من قسم المبيعات وقسم الدعم الفني وموظف الاستعلامات، ولديك مهمة اعداد المقسم الهاتفي لادارة المكالمات بشكل فعال
- المطلوب:

- اعداد مجموعة رنين لقسم الدعم الفني (204) تتكون من الارقام الداخلية: 201، 202، 203
- توزيع المكالمات الواردة على كافة الموظفين في المجموعة واذا لم يتم الرد على المكالمة خلال 20 ثانية يتم تحويل المكالمة الى موظف الاستعلامات على الرقم الداخلي 200
- اختبر هذه الاعدادات للتأكد من انها تعمل كما هو مطلوب من الرقم الداخلي للمدير 205

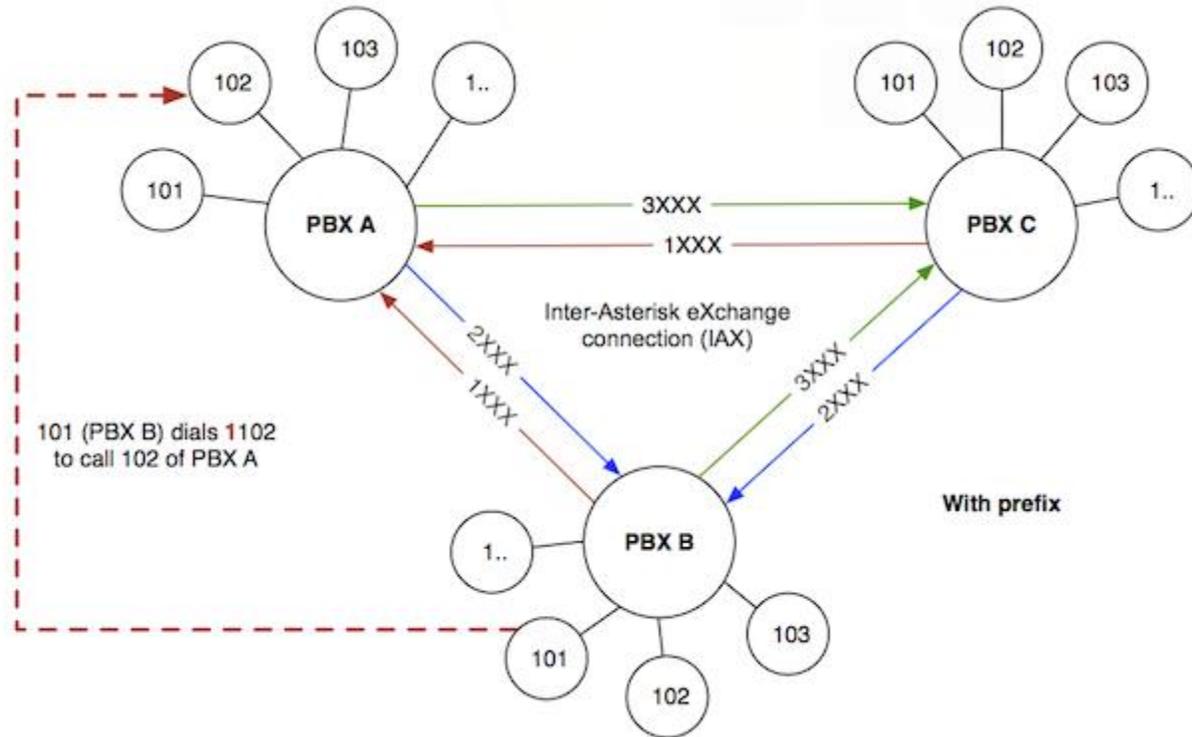
ربط المقاسم الهاتفية الفرعية

- يتم ربط المقاسم بدون اضافة مقدمة (prefix) الى الارقام الفرعية اذا كان كل مقسم هاتفي لديه ارقام فرعية مختلفة



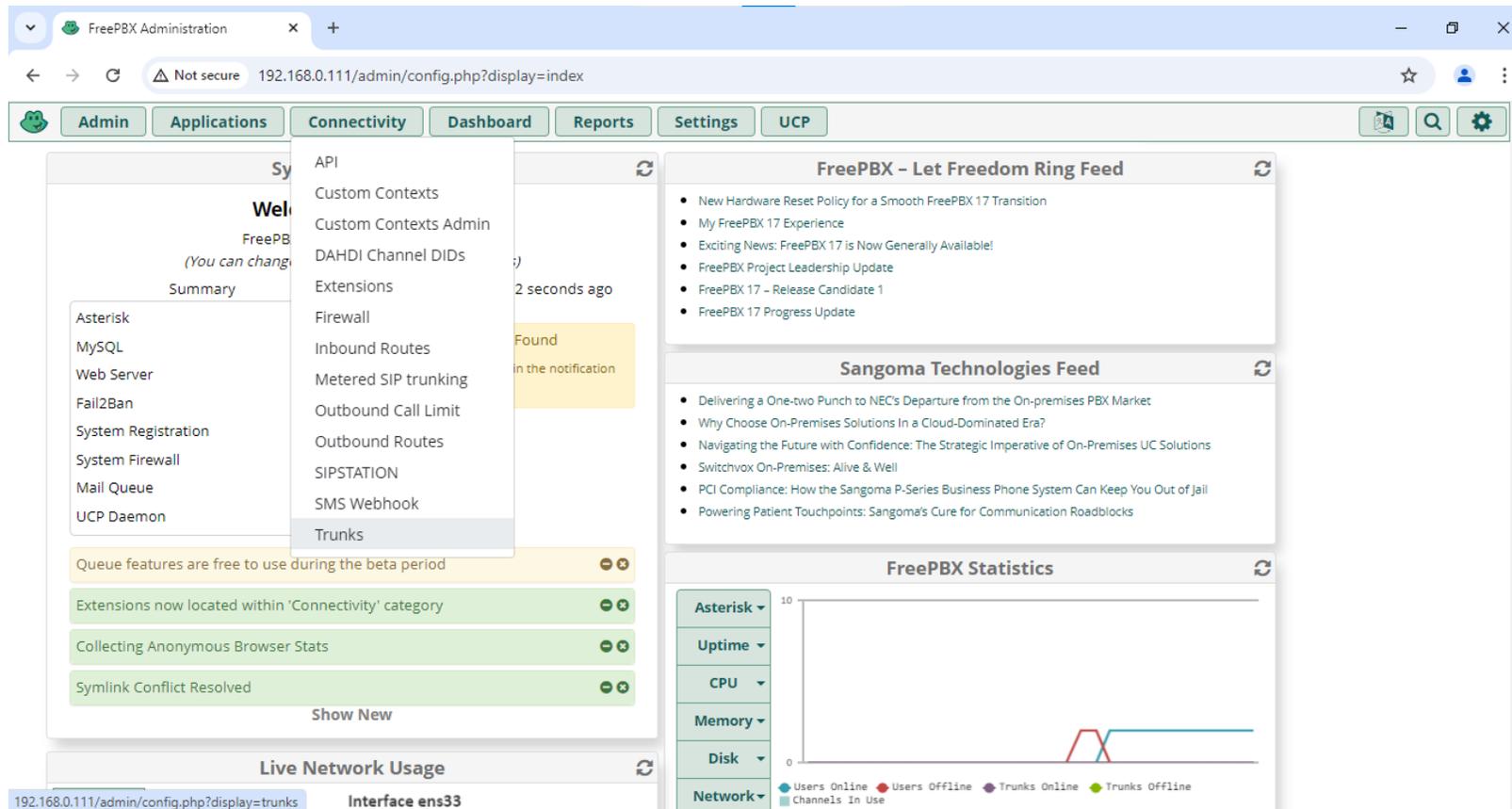
ربط المقاسم الهاتفية الفرعية

- يتم ربط المقاسم مع اضافة مقدمة (prefix) الى الارقام الفرعية اذا كان كل مقسم هاتفي لديه نفس الارقام الفرعية



اعداد خطوط الربط باستخدام IAX

- اذهب الى Connectivity > Trunks في المقسم الهاتفي الاول (PBX1)



The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.111/admin/config.php?display=index`. The navigation menu at the top includes **Admin**, **Applications**, **Connectivity**, **Dashboard**, **Reports**, **Settings**, and **UCP**. The **Connectivity** menu is open, showing a list of options: API, Custom Contexts, Custom Contexts Admin, DAHDI Channel DIDs, Extensions, Firewall, Inbound Routes, Metered SIP trunking, Outbound Call Limit, Outbound Routes, SIPSTATION, SMS Webhook, and **Trunks** (highlighted). The main content area features a 'FreePBX - Let Freedom Ring Feed' with news items, a 'Sangoma Technologies Feed' with articles, and 'FreePBX Statistics' with a line graph showing metrics like Asterisk, Uptime, CPU, Memory, Disk, and Network. A 'Live Network Usage' section is visible at the bottom, showing 'Interface ens33'.

اعداد خطوط الربط باستخدام IAX

• انقر على + لاضافة IAX2 Trunk

FreePBX Administration

192.168.0.111/admin/config.php?display=trunks

Admin Applications Connectivity Dashboard Reports Settings UCP

Trunks

This page is used to manage various system trunks

+ Add Trunk

Search

Tech	CallerID	Status	Actions
No matching records found			

+ Add SIP (chan_pjsip) Trunk
+ Add DAHDi Trunk
+ Add IAX2 Trunk
+ Add ENUM Trunk
+ Add DUNDi Trunk
+ Add Custom Trunk

192.168.0.111/admin/config.php?display=trunks&tech=IAX2

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اعداد خطوط الربط باستخدام IAX

- اصف تسمية توضيحية للخط الرئيسي في تبويب General

FreePBX Administration

192.168.0.111/admin/config.php?display=trunks&tech=IAX2

Admin Applications Connectivity Dashboard Reports Settings UCP

Add IAX2 Trunk

General | Dialed Number Manipulation Rules | iax2 Settings

Trunk Name

Hide CallerID Yes No

Outbound CallerID

CID Options Allow Any CID Block Foreign CIDs Remove CNAM Force Trunk CID

Maximum Channels

Asterisk Trunk Dial Options
 Override System

Continue if Busy Yes No

Disable Trunk Yes No

Monitor Trunk Failures
 Yes No

» Submit Reset

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freePBX Sangoma

اعداد خطوط الربط باستخدام IAX

- ادخل اعدادات الاتصال مع المقسم الهاتفي الثاني في تبويب IAX2 Settings

FreePBX Administration

192.168.0.111/admin/config.php?display=trunks&tech=IAX2

Admin Applications Connectivity Dashboard Reports Settings UCP

Add IAX2 Trunk

General Dialed Number Manipulation Rules **IAX2 Settings**

Outgoing Incoming

Trunk Name ⓘ IAX-PBX2

PEER Details ⓘ

```
host=192.168.0.112
type=friend
context=from-internal
qualify=yes
```

» Submit Reset

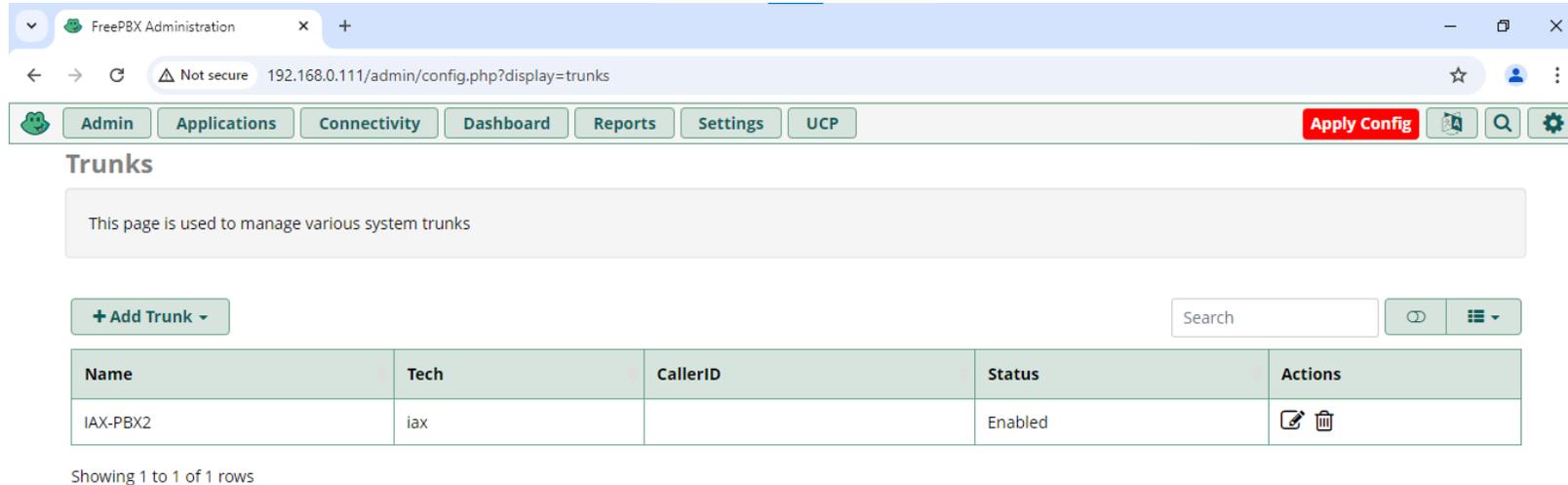
freePBX

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Sangoma

اعداد خطوط الربط باستخدام IAX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=trunks

Admin Applications Connectivity Dashboard Reports Settings UCP Apply Config

Trunks

This page is used to manage various system trunks

+ Add Trunk

Search

Name	Tech	CallerID	Status	Actions
IAX-PBX2	iax		Enabled	 

Showing 1 to 1 of 1 rows

اعداد خطوط الربط باستخدام IAX

- اذهب الى Connectivity > Trunks في المقسم الهاتفي الثاني (PBX2)

The screenshot displays the FreePBX Administration interface. The 'Connectivity' menu is open, showing a list of options including 'Trunks'. The main content area shows the 'IAX2 Extensions' configuration page. A table lists two extensions with the following details:

CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					

اعداد خطوط الربط باستخدام IAX

• انقر على + لاضافة IAX2 Trunk

FreePBX Administration

192.168.0.112/admin/config.php?display=trunks

Admin Applications Connectivity Dashboard Reports Settings UCP

Trunks

This page is used to manage various system trunks

+ Add Trunk

Search

Tech	CallerID	Status	Actions
No matching records found			

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192.168.0.112/admin/config.php?display=trunks&tech=IAX2

اعداد خطوط الربط باستخدام IAX

- اصف تسمية توضيحية للخط الرئيسي في تبويب General

The screenshot displays the 'Add IAX2 Trunk' configuration page in the FreePBX Administration interface. The browser address bar shows the URL: 192.168.0.112/admin/config.php?display=trunks&tech=IAX2. The page has a navigation menu with tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The 'Add IAX2 Trunk' section is divided into three tabs: General, Dialed Number Manipulation Rules, and iax2 Settings. The 'General' tab is selected, showing the following configuration options:

- Trunk Name:** IAX-PBX1
- Hide CallerID:** Yes (selected), No
- Outbound CallerID:** (empty field)
- CID Options:** Allow Any CID (selected), Block Foreign CIDs, Remove CNAM, Force Trunk CID
- Maximum Channels:** (empty field)
- Asterisk Trunk Dial Options:** T (selected), Override, System
- Continue if Busy:** Yes, No (selected)
- Disable Trunk:** Yes, No (selected)
- Monitor Trunk Failures:** (empty field), Yes, No (selected)

At the bottom right of the form, there are 'Submit' and 'Reset' buttons. The footer of the page includes the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL', and the Sangoma logo.

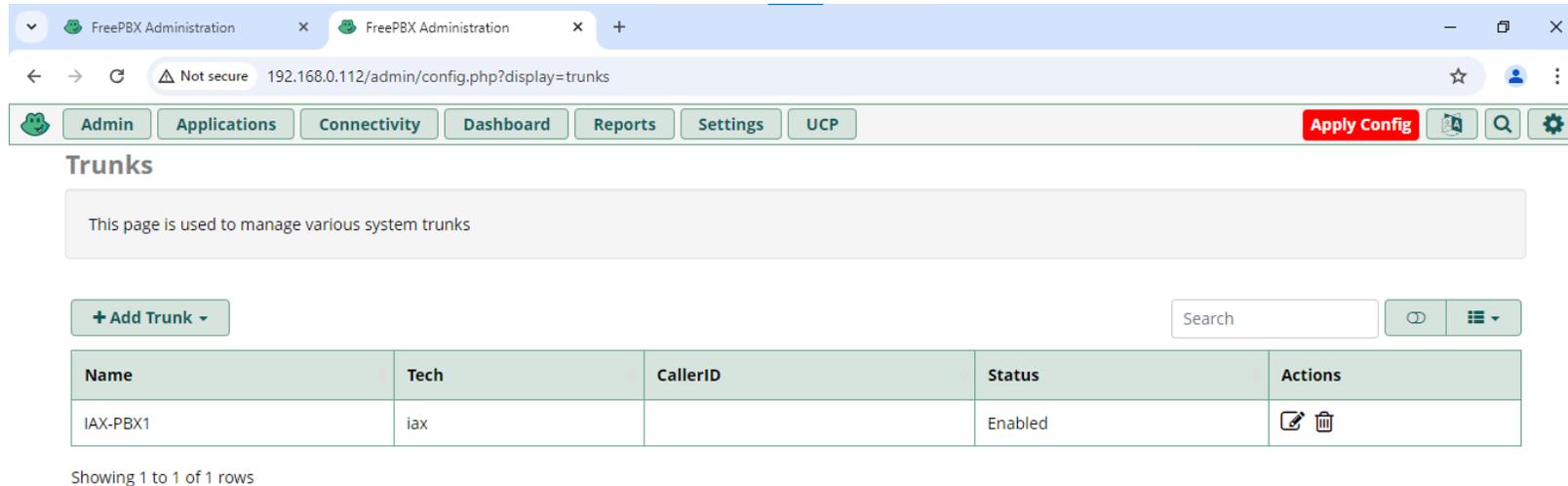
اعداد خطوط الربط باستخدام IAX

- ادخل اعدادات الاتصال مع المقسم الهاتفي الاول في تبويب IAX2 Settings

The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL: `192.168.0.112/admin/config.php?display=trunks&tech=IAX2`. The navigation menu includes: Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled "Add IAX2 Trunk" and has three tabs: General, Dialed Number Manipulation Rules, and iax2 Settings. The "Outgoing" tab is selected, and the "Trunk Name" field is set to "IAX-PBX1". The "PEER Details" field is highlighted with a red box and contains the following configuration: `host=192.168.0.111`, `type=friend`, `context=from-internal`, and `qualify=yes`. At the bottom right, there are "Submit" and "Reset" buttons. The footer contains the FreePBX logo, the Sangoma logo, and the text: "FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright© 2007-2024".

اعداد خطوط الربط باستخدام IAX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



FreePBX Administration

Not secure 192.168.0.112/admin/config.php?display=trunks

Admin Applications Connectivity Dashboard Reports Settings UCP Apply Config

Trunks

This page is used to manage various system trunks

+ Add Trunk

Search

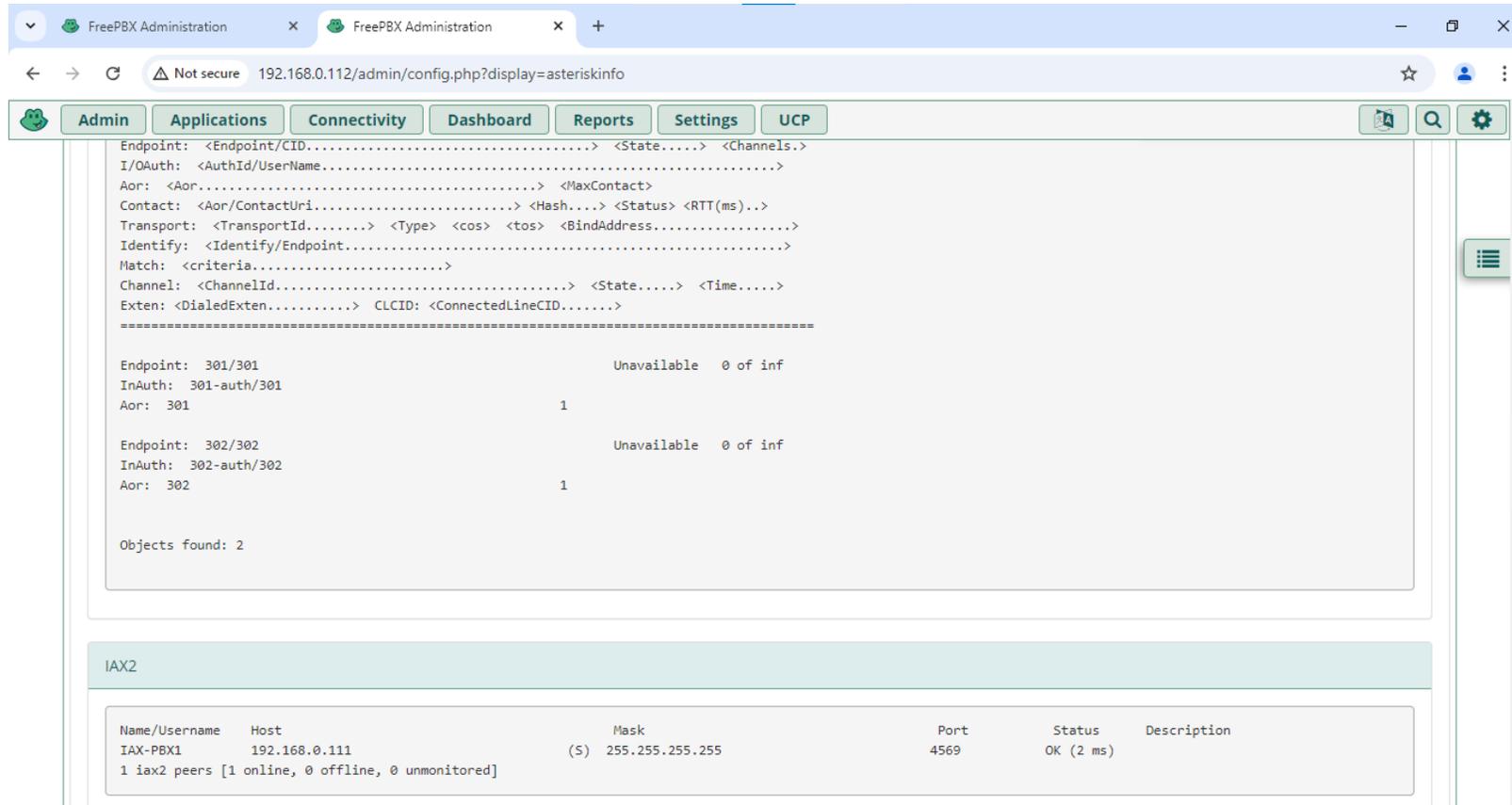
Name	Tech	CallerID	Status	Actions
IAX-PBX1	iax		Enabled	 

Showing 1 to 1 of 1 rows

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اعداد خطوط الربط باستخدام IAX

- اذهب الى Asterisk Info > Reports في المقسم الاول او الثاني للتحقق من الربط بينهما



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: 192.168.0.112/admin/config.php?display=asteriskinfo. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area displays the Asterisk Info reports for two endpoints: 301/301 and 302/302. Both endpoints are shown as 'Unavailable' with 0 channels. The 'Objects found: 2' message is visible. Below the reports, there is a section for IAX2 peers, showing a table with columns: Name/Username, Host, Mask, Port, Status, and Description. The table contains one entry for IAX-PBX1 with host 192.168.0.111 and mask (S) 255.255.255.255, port 4569, and status OK (2 ms). A summary line below the table indicates '1 iax2 peers [1 online, 0 offline, 0 unmonitored]'.

```
Endpoint: <Endpoint/CID.....> <State.....> <Channels.>
I/OAuth: <AuthId/UserName.....>
Aor: <Aor.....> <MaxContact>
Contact: <Aor/ContactUri.....> <Hash.....> <Status> <RTT(ms)...>
Transport: <TransportId.....> <Type> <cos> <tos> <BindAddress.....>
Identify: <Identify/Endpoint.....>
Match: <criteria.....>
Channel: <ChannelId.....> <State.....> <Time.....>
Exten: <DialedExten.....> CLCID: <ConnectedLineCID.....>
=====
Endpoint: 301/301                               Unavailable  0 of inf
InAuth: 301-auth/301
Aor: 301                                         1

Endpoint: 302/302                               Unavailable  0 of inf
InAuth: 302-auth/302
Aor: 302                                         1

Objects found: 2
```

Name/Username	Host	Mask	Port	Status	Description
IAX-PBX1	192.168.0.111	(S) 255.255.255.255	4569	OK (2 ms)	

1 iax2 peers [1 online, 0 offline, 0 unmonitored]

اعداد المكالمات الصادرة على FreePBX

- اذهب الى Connectivity > Outbound Routes في المقسم الهاتفي الاول (PBX1)

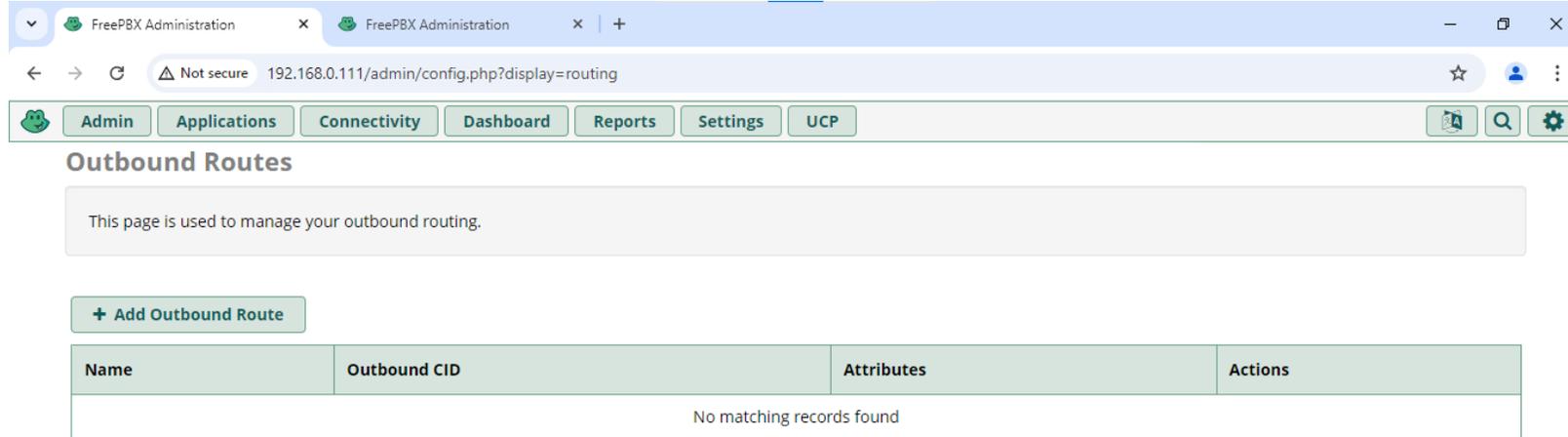
The screenshot shows the FreePBX Administration interface. The browser address bar displays `192.168.0.111/admin/config.php?display=asteriskinfo`. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The Connectivity menu is open, showing options like API, Custom Contexts, DAHDI Channel DIDs, Extensions, Firewall, Inbound Routes, Metered SIP trunking, Outbound Call Limit, Outbound Routes, SIPSTATION, SMS Webhook, and Trunks. The Outbound Routes option is selected, showing a table with the following data:

Name	Host	Mask	Port	Status	Description
IAX-PBX2	192.168.0.112	(S) 255.255.255.255	4569	OK (2 ms)	

At the bottom of the page, the URL `192.168.0.111/admin/config.php?display=routing` is visible.

اعداد المكالمات الصادرة على FreePBX

• انقر على + لاضافة Outbound Route



FreePBX Administration

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=routing

Admin Applications Connectivity Dashboard Reports Settings UCP

Outbound Routes

This page is used to manage your outbound routing.

+ Add Outbound Route

Name	Outbound CID	Attributes	Actions
No matching records found			

اعداد المكالمات الصادرة على FreePBX

- اصف تسمية توضيحية للمكالمة الصادرة في تبويب Route Settings

FreePBX Administration

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=routing&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

Outbound Routes

Add Route

Route Settings Dial Patterns Import/Export Patterns Notifications Additional Settings

Route Name

Route CID

Override Extension

Route Password

Route Type

Music On Hold?

Time Match Time Zone:

Time Match Time Group

Trunk Sequence for Matched Routes

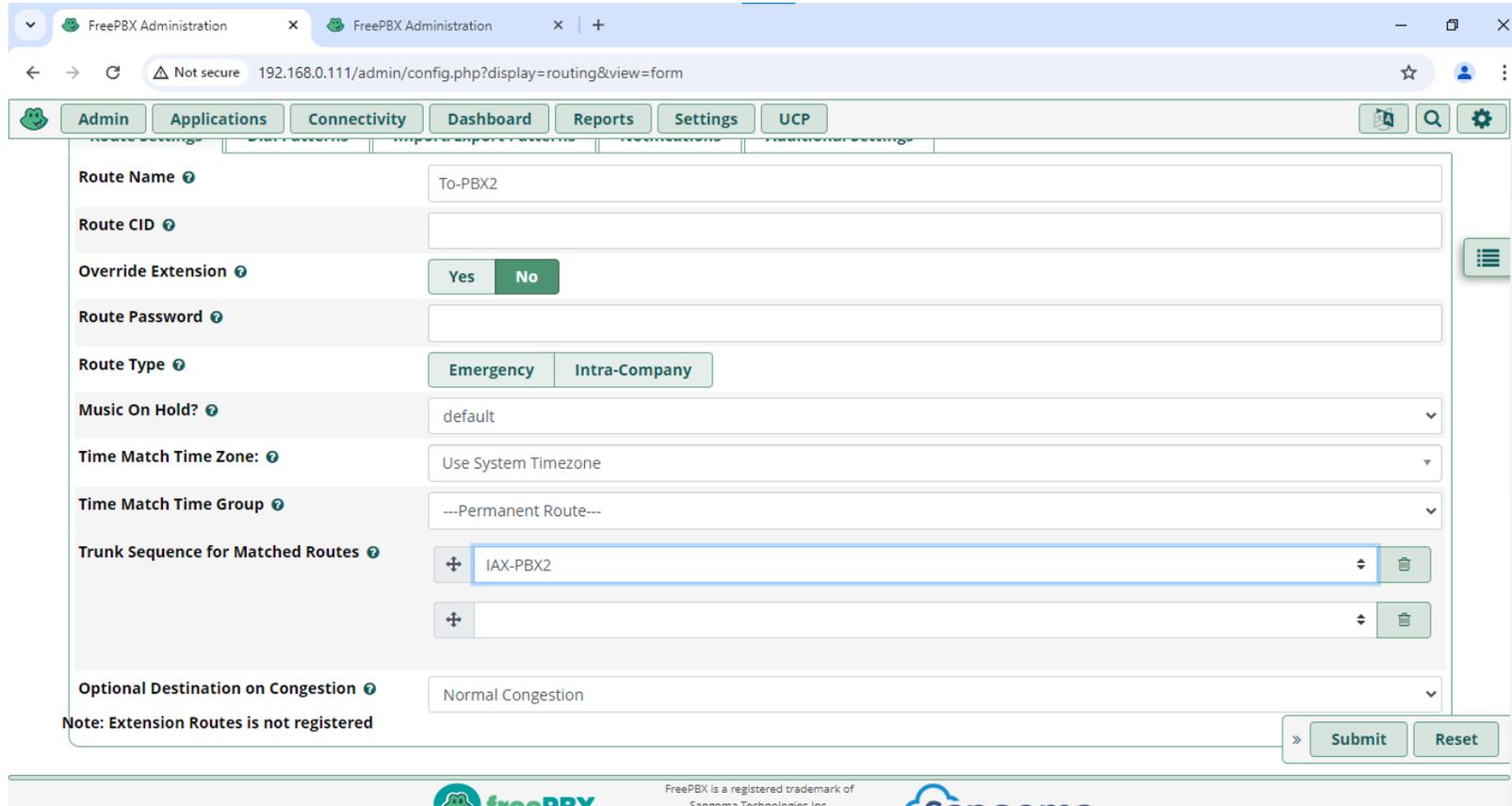
Optional Destination on Congestion

Note: Extension Routes is not registered

Submit Reset

اعداد المكالمات الصادرة على FreePBX

- اختر ترتيب الخطوط الرئيسية في اجراء المكالمة الصادرة (Trunk Sequence)



The screenshot displays the FreePBX Administration interface for configuring a route. The browser address bar shows the URL: `192.168.0.111/admin/config.php?display=routing&view=form`. The navigation menu includes: Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The configuration form for the route 'To-PBX2' includes the following fields:

- Route Name: To-PBX2
- Route CID: (empty)
- Override Extension: Yes (selected), No
- Route Password: (empty)
- Route Type: Emergency (selected), Intra-Company
- Music On Hold?: default
- Time Match Time Zone: Use System Timezone
- Time Match Time Group: ---Permanent Route---
- Trunk Sequence for Matched Routes: A list of trunks with 'IAX-PBX2' selected.
- Optional Destination on Congestion: Normal Congestion

At the bottom of the form, there is a note: "Note: Extension Routes is not registered" and two buttons: "Submit" and "Reset".

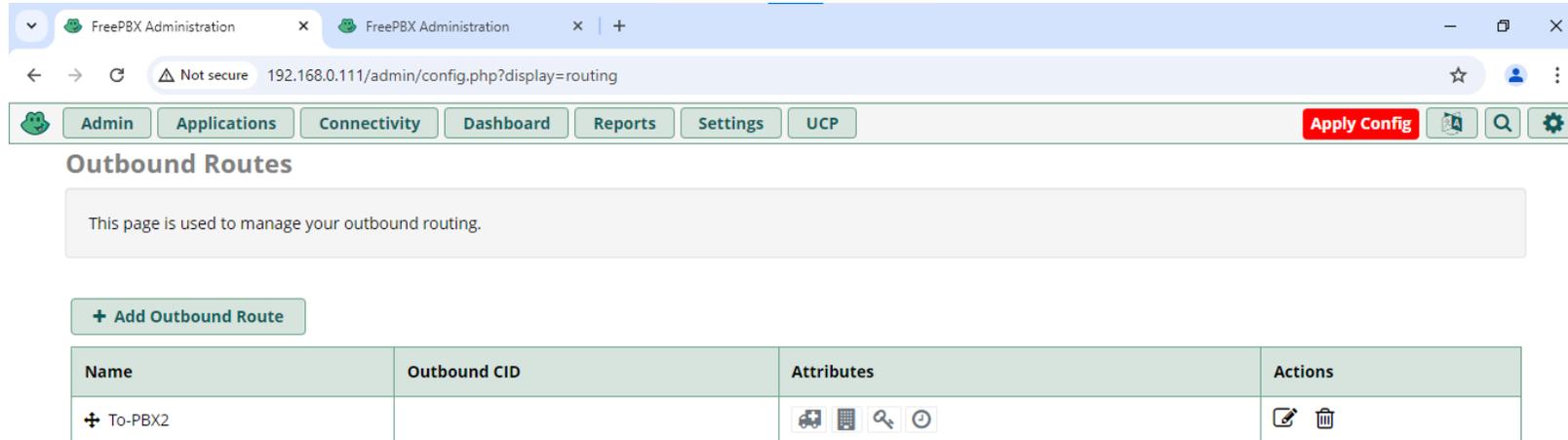
اعداد المكالمات الصادرة على FreePBX

- اصف نمط الطلب لاجراء المكالمة في تبويب Dial Patterns

The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: `192.168.0.111/admin/config.php?display=routing&view=form`. The navigation menu includes: Admin, Applications, Connectivity, Dashboard, Reports, Settings, UCP. The main content area is titled "Outbound Routes" and "Add Route". The "Dial Patterns" tab is selected, showing a list of dial patterns. The current pattern is: `(prepend) prefix | [3XX / CallerID]`. The interface also includes a "Pattern Help" button, a "Dial patterns wizards" button, and "Submit" and "Reset" buttons at the bottom right.

اعداد المكالمات الصادرة على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة

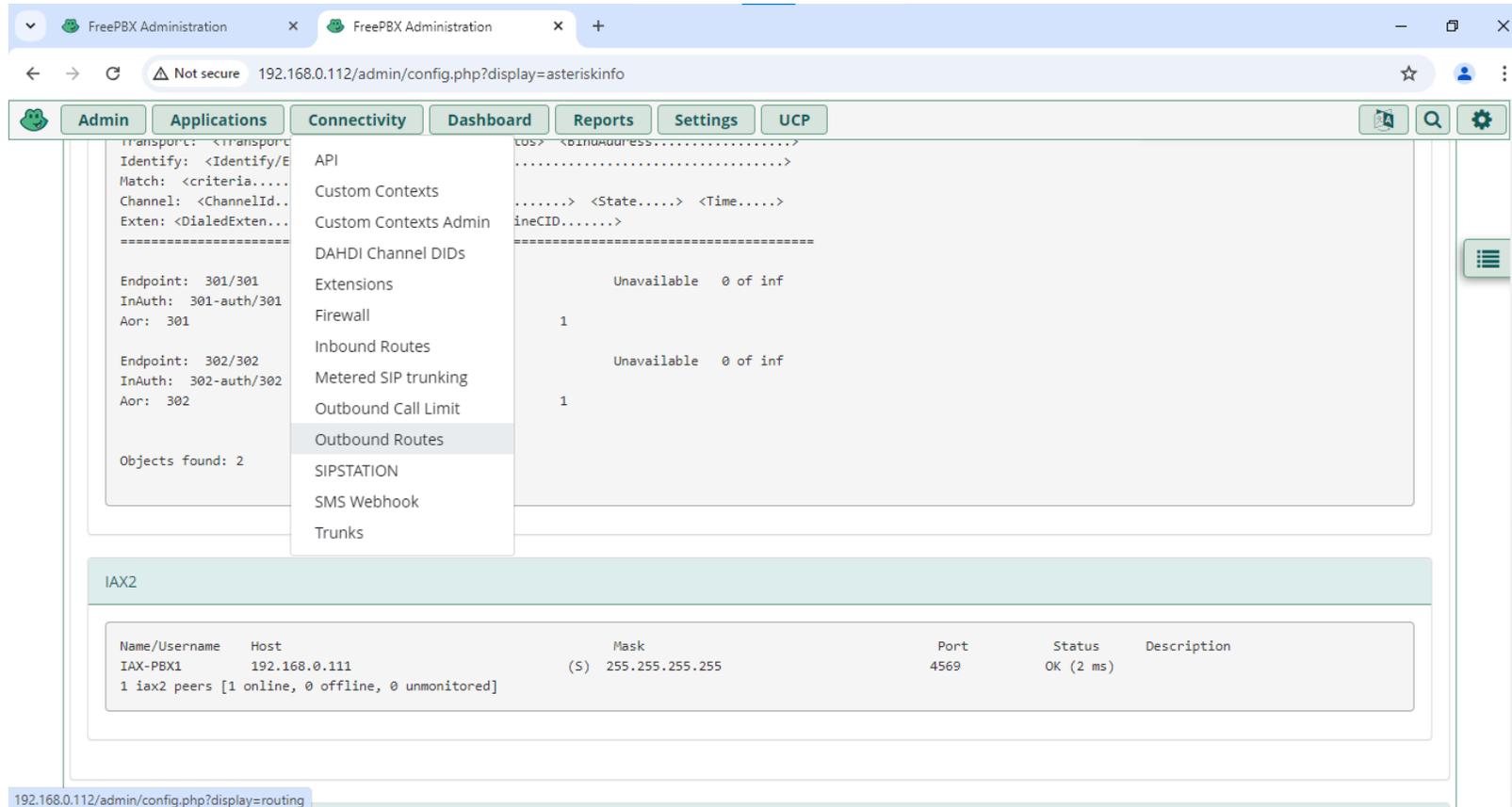


The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.111/admin/config.php?display=routing". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible in the top right. The main content area is titled "Outbound Routes" and contains a message: "This page is used to manage your outbound routing." Below this is a "+ Add Outbound Route" button and a table with the following data:

Name	Outbound CID	Attributes	Actions
+ To-PBX2			

اعداد المكالمات الصادرة على FreePBX

- اذهب الى Connectivity > Outbound Routes في المقسم الهاتفي الثاني (PBX2)



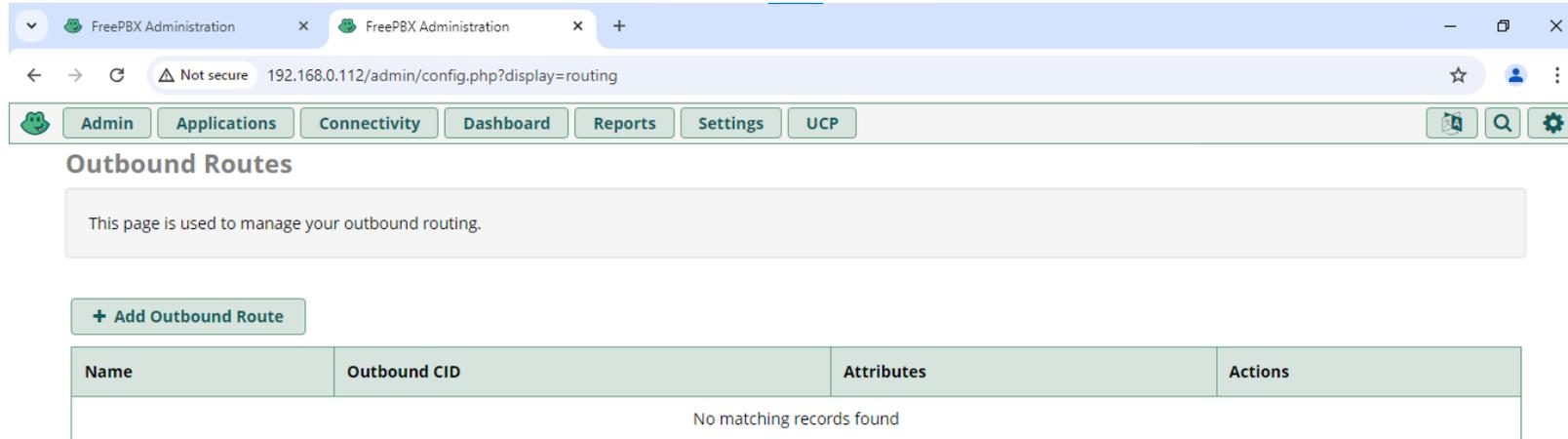
The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.112/admin/config.php?display=asteriskinfo. The navigation menu at the top includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The Connectivity menu is open, showing options like API, Custom Contexts, DAHDI Channel DIDs, Extensions, Firewall, Inbound Routes, Metered SIP trunking, Outbound Call Limit, Outbound Routes (selected), SIPSTATION, SMS Webhook, and Trunks. The main content area displays the Outbound Routes configuration page, which includes a table with the following data:

Name/Username	Host	Mask	Port	Status	Description
IAX-PBX1	192.168.0.111	(S) 255.255.255.255	4569	OK (2 ms)	

Below the table, it shows 1 iax2 peers [1 online, 0 offline, 0 unmonitored]. The page also includes a sidebar on the left with a search icon and a settings icon.

اعداد المكالمات الصادرة على FreePBX

• انقر على + لاضافة Outbound Route



FreePBX Administration

FreePBX Administration

Not secure 192.168.0.112/admin/config.php?display=routing

Admin Applications Connectivity Dashboard Reports Settings UCP

Outbound Routes

This page is used to manage your outbound routing.

+ Add Outbound Route

Name	Outbound CID	Attributes	Actions
No matching records found			

اعداد المكالمات الصادرة على FreePBX

- اصف تسمية توضيحية للمكالمة الصادرة في تبويب Route Settings

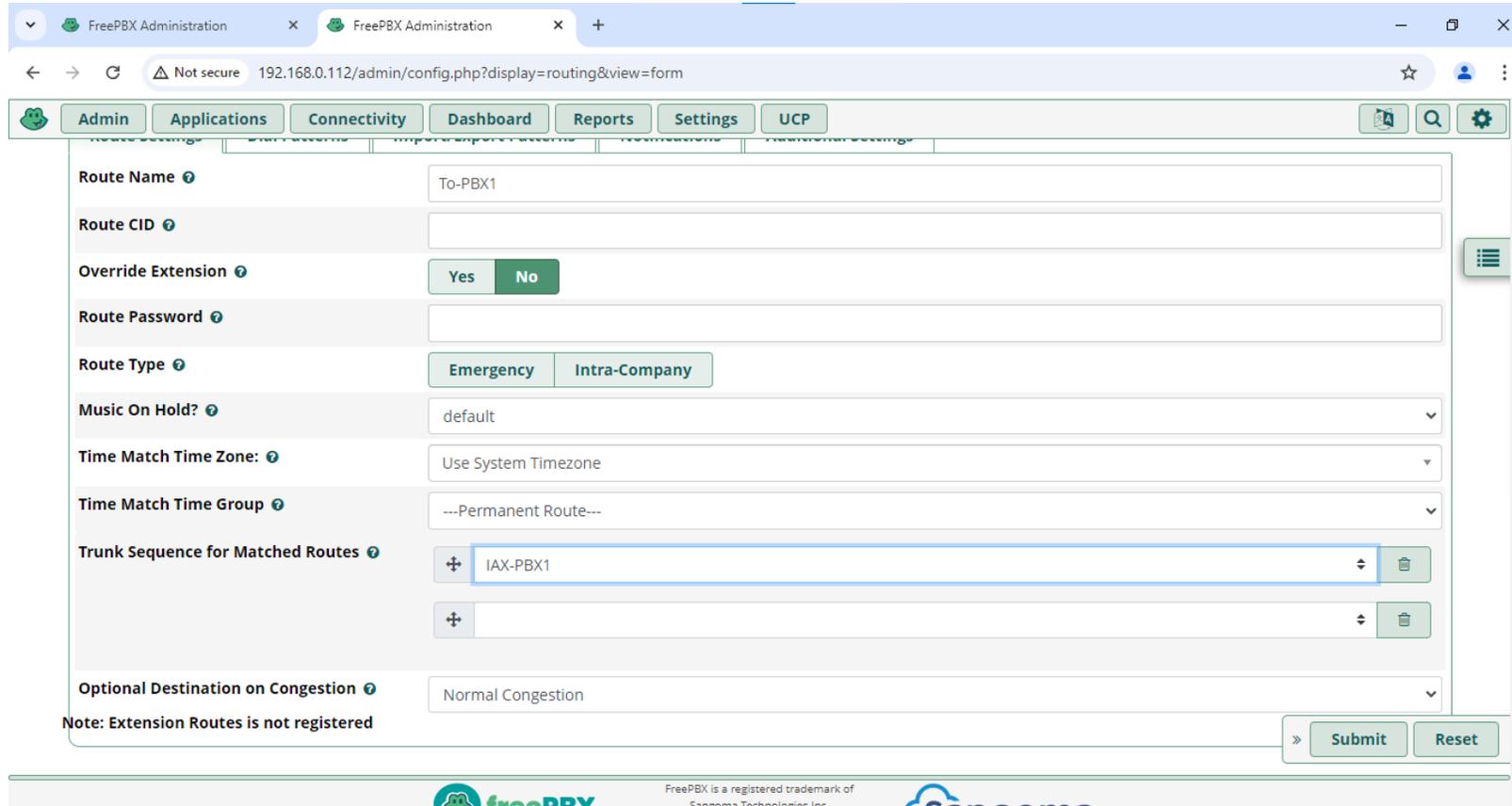
The screenshot shows the FreePBX Administration interface for adding a new route. The browser address bar indicates the URL: 192.168.0.112/admin/config.php?display=routing&view=form. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main heading is 'Outbound Routes' with a sub-heading 'Add Route'. The form is divided into several tabs: Route Settings, Dial Patterns, Import/Export Patterns, Notifications, and Additional Settings. The 'Route Settings' tab is active, showing the following fields:

- Route Name:** To-PBX1
- Route CID:** (empty)
- Override Extension:** Yes (selected), No
- Route Password:** (empty)
- Route Type:** Emergency, Intra-Company (selected)
- Music On Hold?:** default
- Time Match Time Zone:** Use System Timezone
- Time Match Time Group:** ---Permanent Route---
- Trunk Sequence for Matched Routes:** (empty)
- Optional Destination on Congestion:** Normal Congestion

At the bottom of the form, there is a note: 'Note: Extension Routes is not registered'. The form concludes with 'Submit' and 'Reset' buttons.

اعداد المكالمات الصادرة على FreePBX

- اختر ترتيب الخطوط الرئيسية في اجراء المكالمة الصادرة (Trunk Sequence)



The screenshot displays the FreePBX Administration interface for configuring a route. The browser address bar shows the URL: 192.168.0.112/admin/config.php?display=routing&view=form. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main form is titled 'Route Name' and contains the following fields:

- Route Name: To-PBX1
- Route CID: (empty)
- Override Extension: Yes (selected), No
- Route Password: (empty)
- Route Type: Emergency (selected), Intra-Company
- Music On Hold?: default
- Time Match Time Zone: Use System Timezone
- Time Match Time Group: ---Permanent Route---
- Trunk Sequence for Matched Routes: A list of trunks is shown, with 'IAX-PBX1' selected and highlighted. There is a plus sign to add more trunks and a trash icon to remove one.
- Optional Destination on Congestion: Normal Congestion

At the bottom of the form, there are 'Submit' and 'Reset' buttons. A note at the bottom left states: 'Note: Extension Routes is not registered'. The footer of the page includes the FreePBX logo and the text: 'FreePBX is a registered trademark of Sangoma Technologies Inc.'

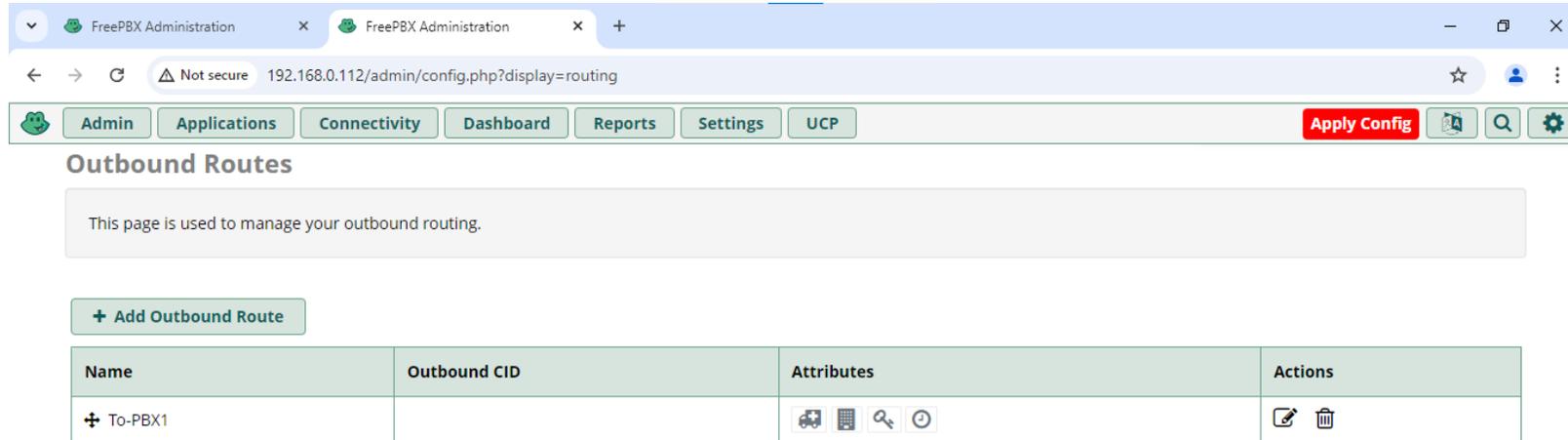
اعداد المكالمات الصادرة على FreePBX

- اصف نمط الطلب لاجراء المكالمة في تبويب Dial Patterns

The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: 192.168.0.112/admin/config.php?display=routing&view=form. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'Outbound Routes' and 'Add Route'. The 'Dial Patterns' tab is selected, showing a list of dial patterns. The current pattern is '(prepend) prefix | [2XX / CallerID]'. The interface includes a 'Pattern Help' button and a 'Dial patterns wizards' button. At the bottom right, there are 'Submit' and 'Reset' buttons. The footer contains the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright © 2007-2024', and the Sangoma logo.

اعداد المكالمات الصادرة على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة

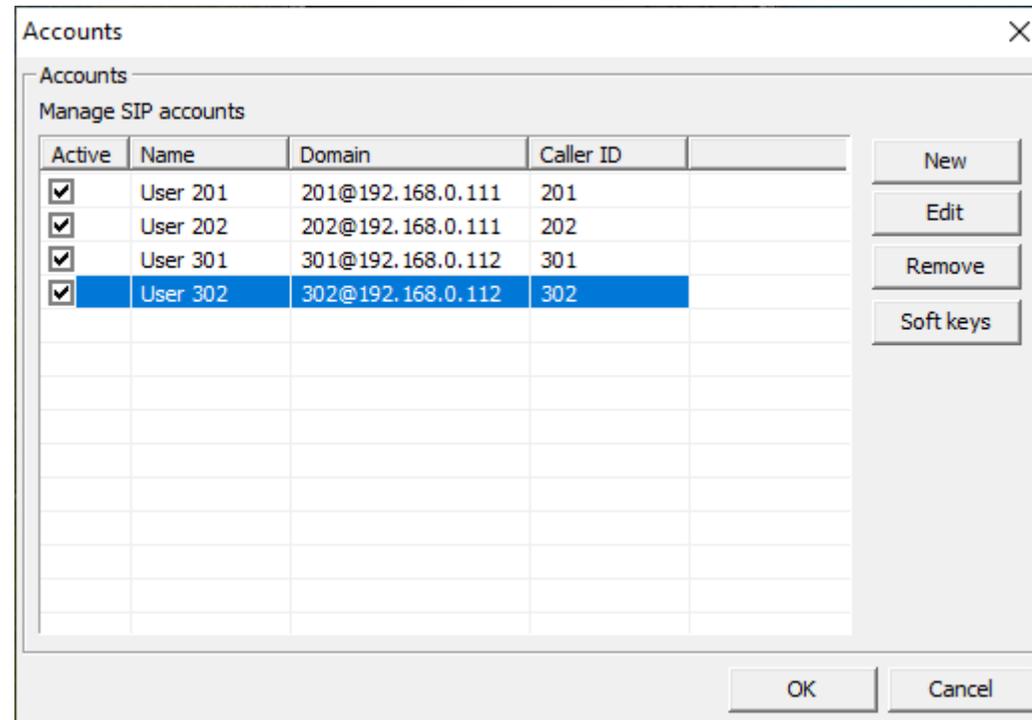


The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.112/admin/config.php?display=routing". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible in the top right. The main content area is titled "Outbound Routes" and contains a message: "This page is used to manage your outbound routing." Below this is a "+ Add Outbound Route" button and a table with the following data:

Name	Outbound CID	Attributes	Actions
+ To-PBX1			

اختبار الاتصال

- بعد اعداد الخطوط الفرعية في برنامج الاتصال الهاتفي، تحقق من الاتصال بين الخطوط الفرعية في المقسم الاول والثاني



تمرين: ربط مقسمين هاتفين فرعيين باستخدام IAX

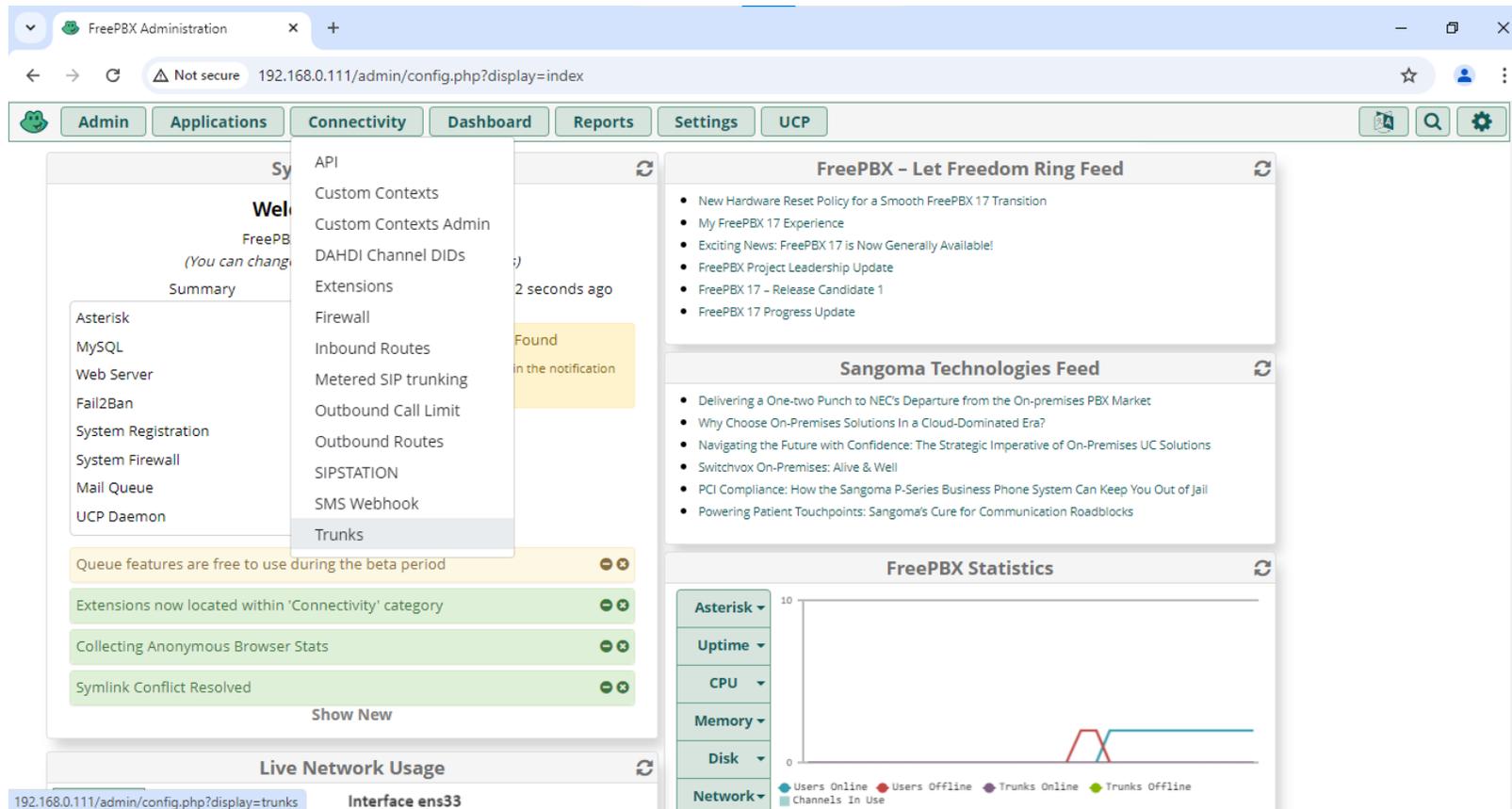
- انت مسؤول عن الاتصالات في شركة لديها فرعين متصلين عبر الشبكة، وكل فرع يحتوي على مقسم هاتفي فرعي (PBX) ومهمتك الربط بينهما بحيث يتمكن الموظفون في كل فرع من الاتصال بالفرع الآخر
- المطلوب:
- اعداد الارقام الداخلية: 201، 202، 203 في المقسم الهاتفي الاول (PBX1)
- اعداد الارقام الداخلية: 201، 202، 203 في المقسم الهاتفي الثاني (PBX2)
- انشاء IAX trunk في المقسمين لتبادل المكالمات بين المقسمين
- اعداد قواعد الاتصال (Dial Plans) في كل مقسم لتوجيه المكالمات بين المقسمين مع اضافة مقدمة الى الارقام الداخلية
- اختبر الاتصال بين المقسمين للتأكد من توجيه المكالمات بشكل صحيح

تمرين: ربط مقسمين هاتفين فرعيين باستخدام IAX

- انت مسؤول عن الاتصالات في شركة لديها فرعين متصلين عبر الشبكة، وكل فرع يحتوي على مقسم هاتفي فرعي (PBX) ومهمتك الربط بينهما بحيث يتمكن الموظفون في كل فرع من الاتصال بالفرع الآخر
- المطلوب:
- اعداد الارقام الداخلية: 201، 202، 203 في المقسم الهاتفي الاول
- اعداد الارقام الداخلية: 301، 302، 303 في المقسم الهاتفي الثاني
- انشاء IAX trunk في المقسمين لتبادل المكالمات بين المقسمين
- اعداد قواعد الاتصال (Dial Plans) في كل مقسم لتوجيه المكالمات بين المقسمين بدون اضافة مقدمة الى الارقام الداخلية
- اختبر الاتصال بين المقسمين للتأكد من توجيه المكالمات بشكل صحيح

اعداد خطوط الربط باستخدام SIP

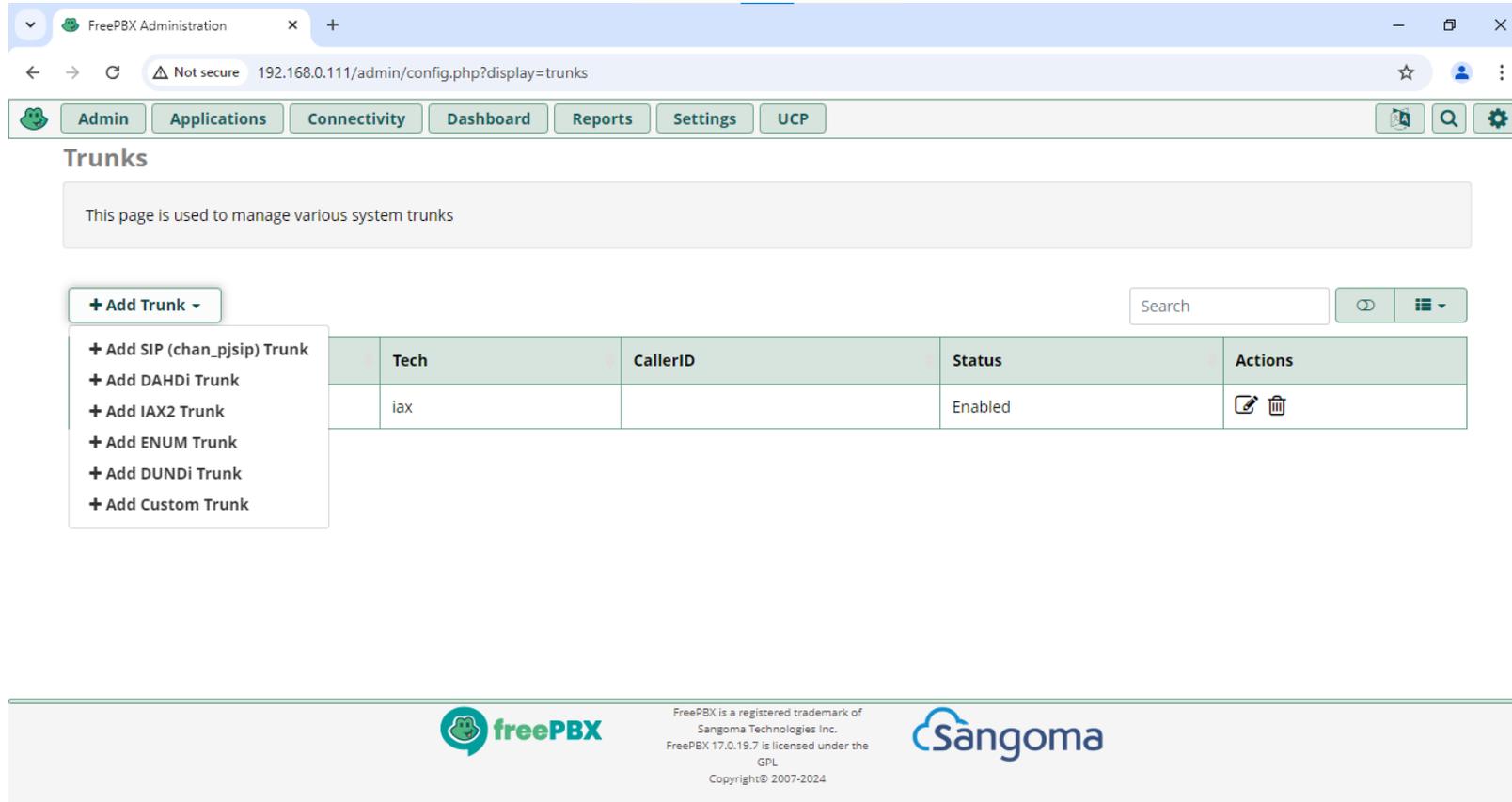
- اذهب الى Connectivity > Trunks في المقسم الهاتفي الاول (PBX1)



The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.111/admin/config.php?display=index`. The navigation menu includes **Admin**, **Applications**, **Connectivity**, **Dashboard**, **Reports**, **Settings**, and **UCP**. The **Connectivity** menu is open, showing a list of options: API, Custom Contexts, Custom Contexts Admin, DAHDI Channel DIDs, Extensions, Firewall, Inbound Routes, Metered SIP trunking, Outbound Call Limit, Outbound Routes, SIPSTATION, SMS Webhook, and **Trunks** (highlighted). The main content area features a 'FreePBX - Let Freedom Ring Feed' with news items, a 'Sangoma Technologies Feed' with articles, and 'FreePBX Statistics' with a line graph showing Asterisk uptime, CPU, memory, disk, and network usage. A 'Live Network Usage' section at the bottom shows interface `ens33`.

اعداد خطوط الربط باستخدام SIP

• انقر على + لاضافة SIP Trunk



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.111/admin/config.php?display=trunks. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled "Trunks" and contains a message: "This page is used to manage various system trunks". Below this is a "+ Add Trunk" button with a dropdown menu. The dropdown menu lists the following options: "+ Add SIP (chan_pjsip) Trunk", "+ Add DAHDi Trunk", "+ Add IAX2 Trunk", "+ Add ENUM Trunk", "+ Add DUNDi Trunk", and "+ Add Custom Trunk". A table below the dropdown shows the following data:

Tech	CallerID	Status	Actions
iax		Enabled	 

The footer of the page includes the FreePBX logo, the text "FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright© 2007-2024", and the Sangoma logo.

اعداد خطوط الربط باستخدام SIP

- اصف تسمية توضيحية للخط الرئيسي في تبويب General

FreePBX Administration

192.168.0.111/admin/config.php?display=trunks&tech=PJSIP

Admin Applications Connectivity Dashboard Reports Settings UCP

Add PJSIP Trunk

General Dialed Number Manipulation Rules pjsip Settings

Trunk Name SIP-PBX2

Hide CallerID Yes No

Outbound CallerID

CID Options Allow Any CID Block Foreign CIDs Remove CNAM Force Trunk CID

Maximum Channels

Asterisk Trunk Dial Options T
Override System

Continue if Busy Yes No

Disable Trunk Yes No

Monitor Trunk Failures
Yes No

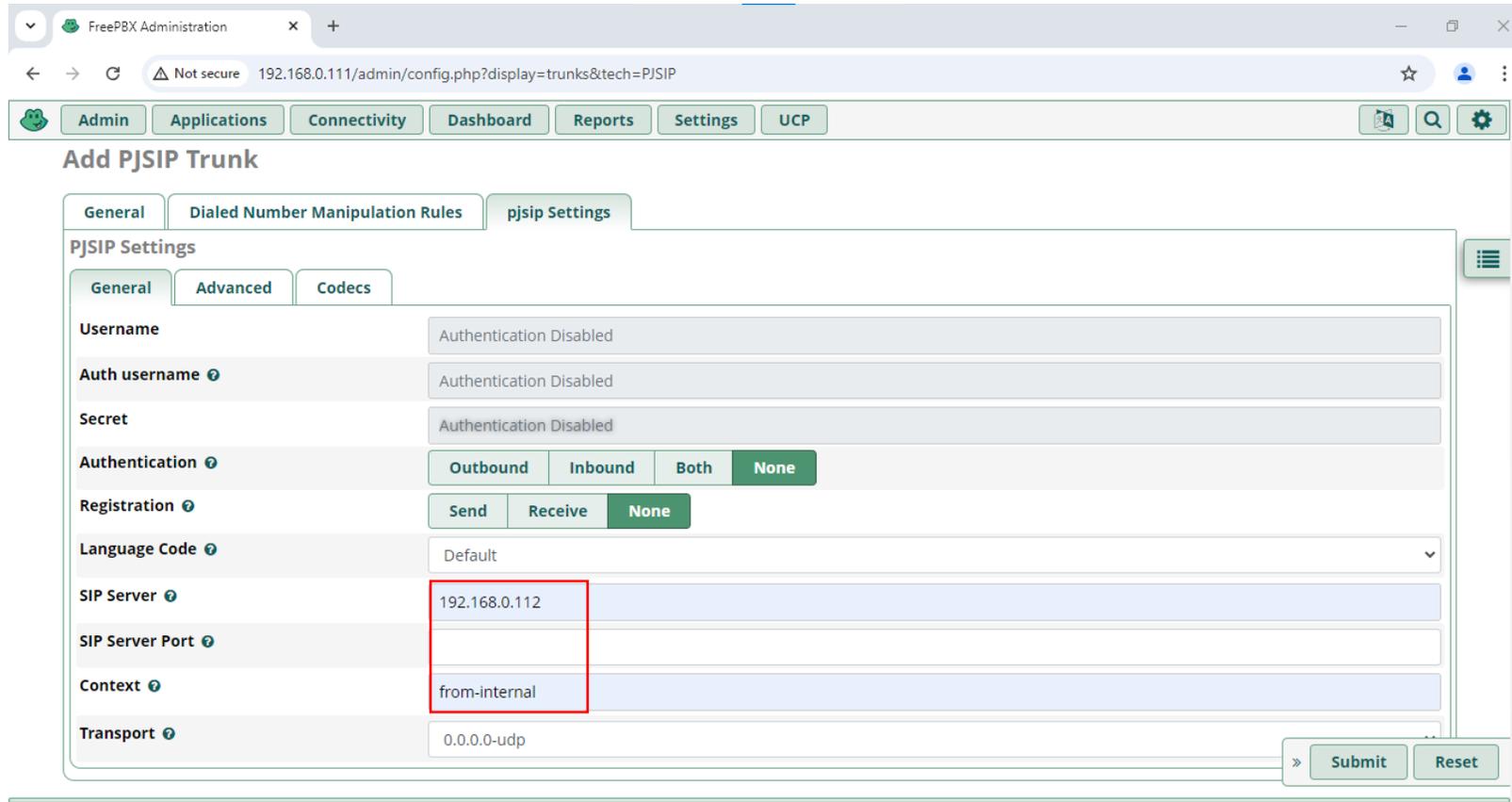
Submit Reset

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freePBX Sangoma

اعداد خطوط الربط باستخدام SIP

- ادخل اعدادات الاتصال مع المقسم الثاني في تبويب PJSIP Settings > General



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: `192.168.0.111/admin/config.php?display=trunks&tech=PJSIP`. The navigation menu includes **Admin**, **Applications**, **Connectivity**, **Dashboard**, **Reports**, **Settings**, and **UCP**. The main heading is **Add PJSIP Trunk**. Underneath, there are three tabs: **General**, **Dialed Number Manipulation Rules**, and **pjsip Settings**. The **pjsip Settings** tab is active and contains sub-tabs for **General**, **Advanced**, and **Codecs**. The **General** sub-tab is selected, showing the following fields:

Username	Authentication Disabled
Auth username	Authentication Disabled
Secret	Authentication Disabled
Authentication	Outbound Inbound Both None
Registration	Send Receive None
Language Code	Default
SIP Server	192.168.0.112
SIP Server Port	
Context	from-internal
Transport	0.0.0.0-udp

At the bottom right of the form, there are **Submit** and **Reset** buttons. The **SIP Server** field is highlighted with a red box.

اعداد خطوط الربط باستخدام SIP

- ادخل اعدادات الاتصال مع المقسم الثاني في تبويب PJSIP Settings > Advanced

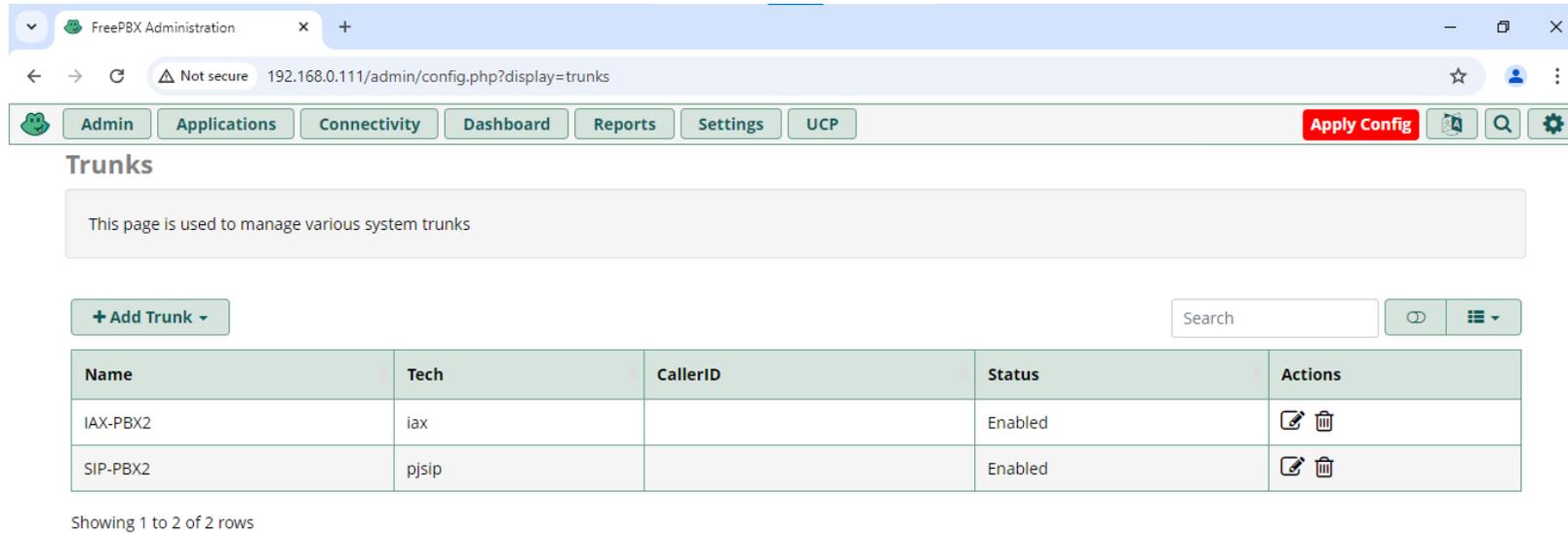
The screenshot shows the FreePBX Administration interface for PJSIP Settings > Advanced. The browser address bar indicates the URL: 192.168.0.111/admin/config.php?display=trunks&tech=PJSIP. The interface includes a navigation menu with tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main configuration area contains the following fields and options:

Outbound Proxy	<input type="text"/>
User = Phone	<input type="radio"/> Yes <input checked="" type="radio"/> No
Contact User	<input type="text"/>
From Domain	<input type="text"/>
From User	<input type="text"/>
Client URI	<input type="text"/>
Server URI	<input type="text"/>
Media Address	<input type="text"/>
AOR	<input type="text"/>
AOR Contact	<input type="text"/>
Match (Permit)	<input type="text" value="192.168.0.112"/>
Support Path	<input type="radio"/> Yes <input checked="" type="radio"/> No
Support T.38 UDPTL	<input type="radio"/> Yes <input checked="" type="radio"/> No
T.38 UDPTL Error Correction	<input checked="" type="radio"/> None <input type="radio"/> Forward <input type="radio"/> Redundancy

At the bottom right, there are buttons for Submit and Reset.

اعداد خطوط الربط باستخدام SIP

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.111/admin/config.php?display=trunks. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible in the top right corner. The main content area is titled 'Trunks' and contains a message: 'This page is used to manage various system trunks'. Below this is a '+ Add Trunk' button, a search box, and a table of trunks. The table has columns for Name, Tech, CallerID, Status, and Actions. Two trunks are listed: IAX-PBX2 (Tech: iax, Status: Enabled) and SIP-PBX2 (Tech: pjsip, Status: Enabled). Below the table, it says 'Showing 1 to 2 of 2 rows'.

Name	Tech	CallerID	Status	Actions
IAX-PBX2	iax		Enabled	 
SIP-PBX2	pjsip		Enabled	 

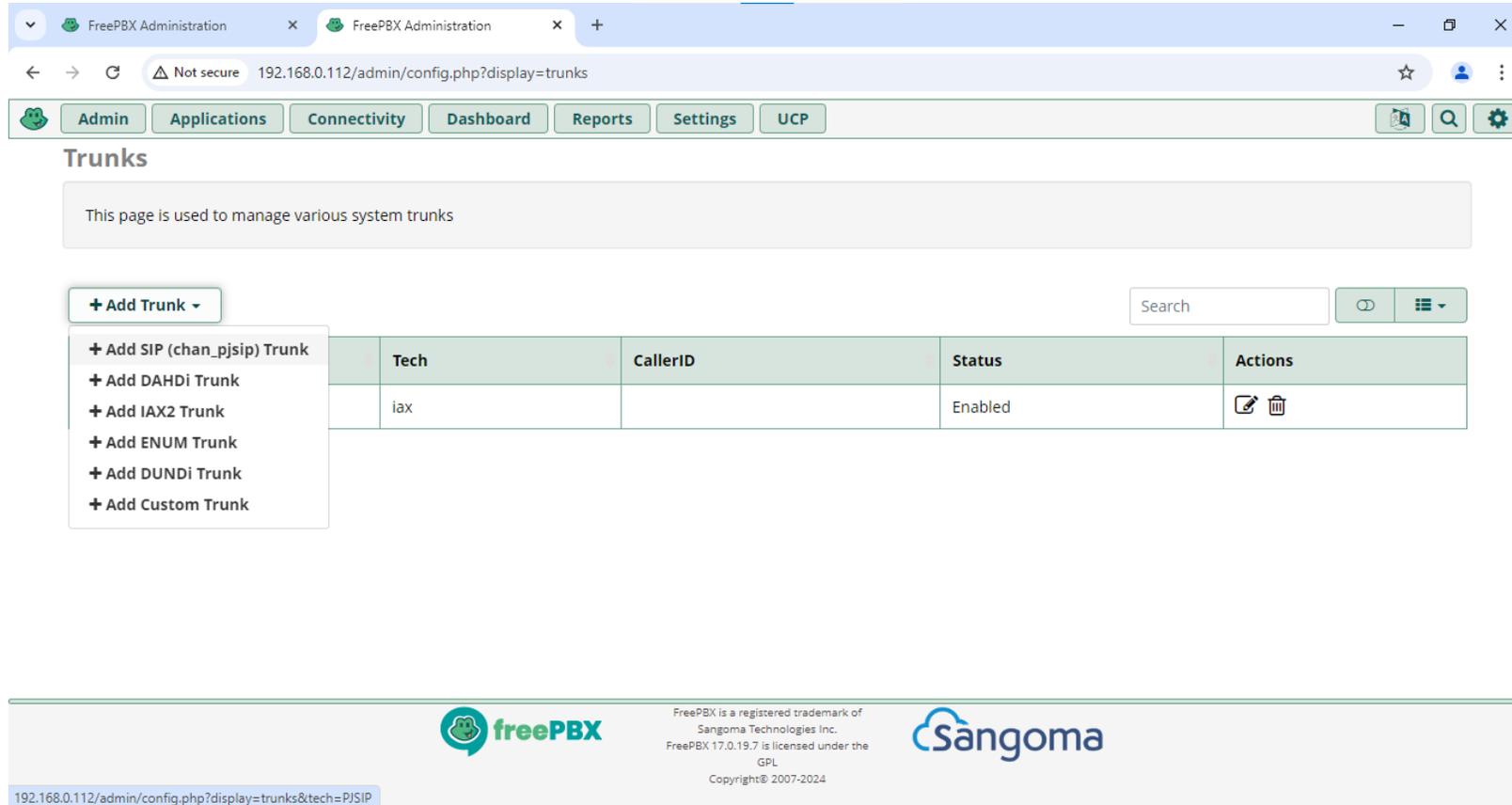
اعداد خطوط الربط باستخدام SIP

- اذهب الى Connectivity > Trunks في المقسم الهاتفي الثاني (PBX2)

The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.112/admin/config.php`. The navigation menu at the top includes **Admin**, **Applications**, **Connectivity**, **Dashboard**, **Reports**, **Settings**, and **UCP**. The **Connectivity** menu is open, showing a list of options: API, Custom Contexts, Custom Contexts Admin, DAHDI Channel DIDs, Extensions, Firewall, Inbound Routes, Metered SIP trunking, Outbound Call Limit, Outbound Routes, SIPSTATION, SMS Webhook, and **Trunks**. The **Trunks** option is highlighted. The main content area shows a 'FreePBX - Let Freedom Ring Feed' with several news items, a 'Sangoma Technologies Feed' with news items, and 'FreePBX Statistics' with a graph showing Asterisk uptime, CPU, memory, disk, and network usage. The bottom status bar indicates the interface is `ens33`.

اعداد خطوط الربط باستخدام SIP

• انقر على + لاضافة SIP Trunk



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.112/admin/config.php?display=trunks. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled "Trunks" and contains a message: "This page is used to manage various system trunks". Below this, there is a "+ Add Trunk" button with a dropdown menu. The dropdown menu lists the following options: "+ Add SIP (chan_pjsip) Trunk", "+ Add DAHDi Trunk", "+ Add IAX2 Trunk", "+ Add ENUM Trunk", "+ Add DUNDi Trunk", and "+ Add Custom Trunk". To the right of the dropdown is a search box and a menu icon. Below the dropdown is a table with the following columns: Tech, CallerID, Status, and Actions. The table contains one row with the following data: Tech: iax, CallerID: (empty), Status: Enabled, Actions: (edit and delete icons).

Tech	CallerID	Status	Actions
iax		Enabled	 

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192.168.0.112/admin/config.php?display=trunks&tech=PJSIP

اعداد خطوط الربط باستخدام SIP

- اصف تسمية توضيحية للخط الرئيسي في تبويب General

The screenshot displays the 'Add PJSIP Trunk' configuration page in the FreePBX Administration interface. The browser address bar shows the URL: 192.168.0.112/admin/config.php?display=trunks&tech=PJSIP. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The 'Add PJSIP Trunk' section has three tabs: General, Dialed Number Manipulation Rules, and pjsip Settings. The 'General' tab is selected, showing the following configuration options:

- Trunk Name:** SIP-PBX1
- Hide CallerID:** Yes (selected), No
- Outbound CallerID:** (empty field)
- CID Options:** Allow Any CID (selected), Block Foreign CIDs, Remove CNAM, Force Trunk CID
- Maximum Channels:** (empty field)
- Asterisk Trunk Dial Options:** T (selected), Override, System
- Continue if Busy:** Yes, No (selected)
- Disable Trunk:** Yes, No (selected)
- Monitor Trunk Failures:** (empty field), Yes, No (selected)

At the bottom right, there are 'Submit' and 'Reset' buttons. The footer of the page includes the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL', and the Sangoma logo.

اعداد خطوط الربط باستخدام SIP

- ادخل اعدادات الاتصال مع المقسم الاول في تبويب PJSIP Settings > General

The screenshot displays the FreePBX Administration interface. The browser address bar shows the URL: 192.168.0.112/admin/config.php?display=trunks&tech=PJSIP. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled "Add PJSIP Trunk" and has three tabs: General, Dialed Number Manipulation Rules, and pjsip Settings. The "pjsip Settings" tab is active and contains sub-tabs for General, Advanced, and Codecs. The "General" sub-tab is selected, showing the following fields:

Username	Authentication Disabled
Auth username	Authentication Disabled
Secret	Authentication Disabled
Authentication	Outbound Inbound Both None
Registration	Send Receive None
Language Code	Default
SIP Server	192.168.0.111
SIP Server Port	
Context	from-internal
Transport	0.0.0.0-udp

At the bottom right of the form, there are "Submit" and "Reset" buttons. A red box highlights the "SIP Server" field containing the IP address 192.168.0.111 and the "Context" field containing the value from-internal.

اعداد خطوط الربط باستخدام SIP

- ادخل اعدادات الاتصال مع المقسم الاول في تبويب PJSIP Settings > Advanced

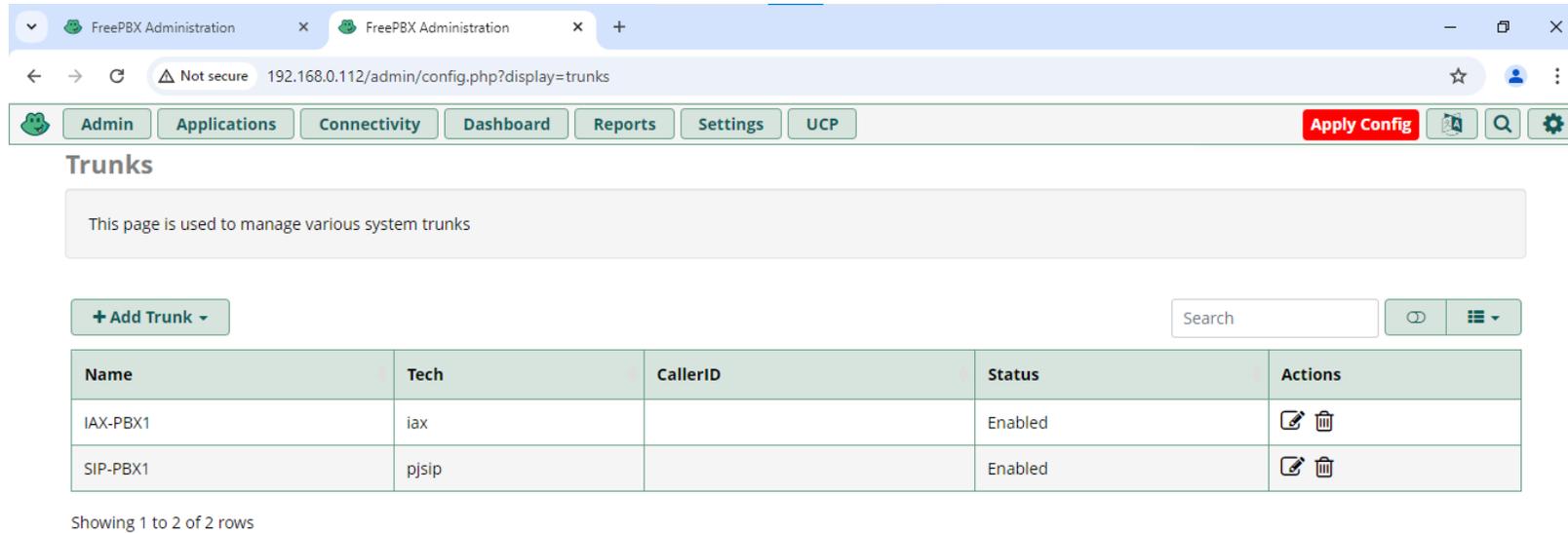
The screenshot displays the FreePBX Administration interface for configuring PJSIP settings. The browser address bar shows the URL: 192.168.0.112/admin/config.php?display=trunks&tech=PJSIP. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main configuration area is titled 'PJSIP Settings > Advanced' and contains the following fields:

Outbound Proxy	<input type="text"/>
User = Phone	<input type="radio"/> Yes <input checked="" type="radio"/> No
Contact User	<input type="text"/>
From Domain	<input type="text"/>
From User	<input type="text"/>
Client URI	<input type="text"/>
Server URI	<input type="text"/>
Media Address	<input type="text"/>
AOR	<input type="text"/>
AOR Contact	<input type="text"/>
Match (Permit)	<input type="text" value="192.168.0.111"/>
Support Path	<input type="radio"/> Yes <input checked="" type="radio"/> No
Support T.38 UDPTL	<input type="radio"/> Yes <input checked="" type="radio"/> No
T.38 UDPTL Error Correction	<input checked="" type="radio"/> None <input type="radio"/> Forward <input type="radio"/> Redundancy

At the bottom right, there are 'Submit' and 'Reset' buttons.

اعداد خطوط الربط باستخدام SIP

- انقر على Apply Config لتطبيق الاعدادات الجديدة

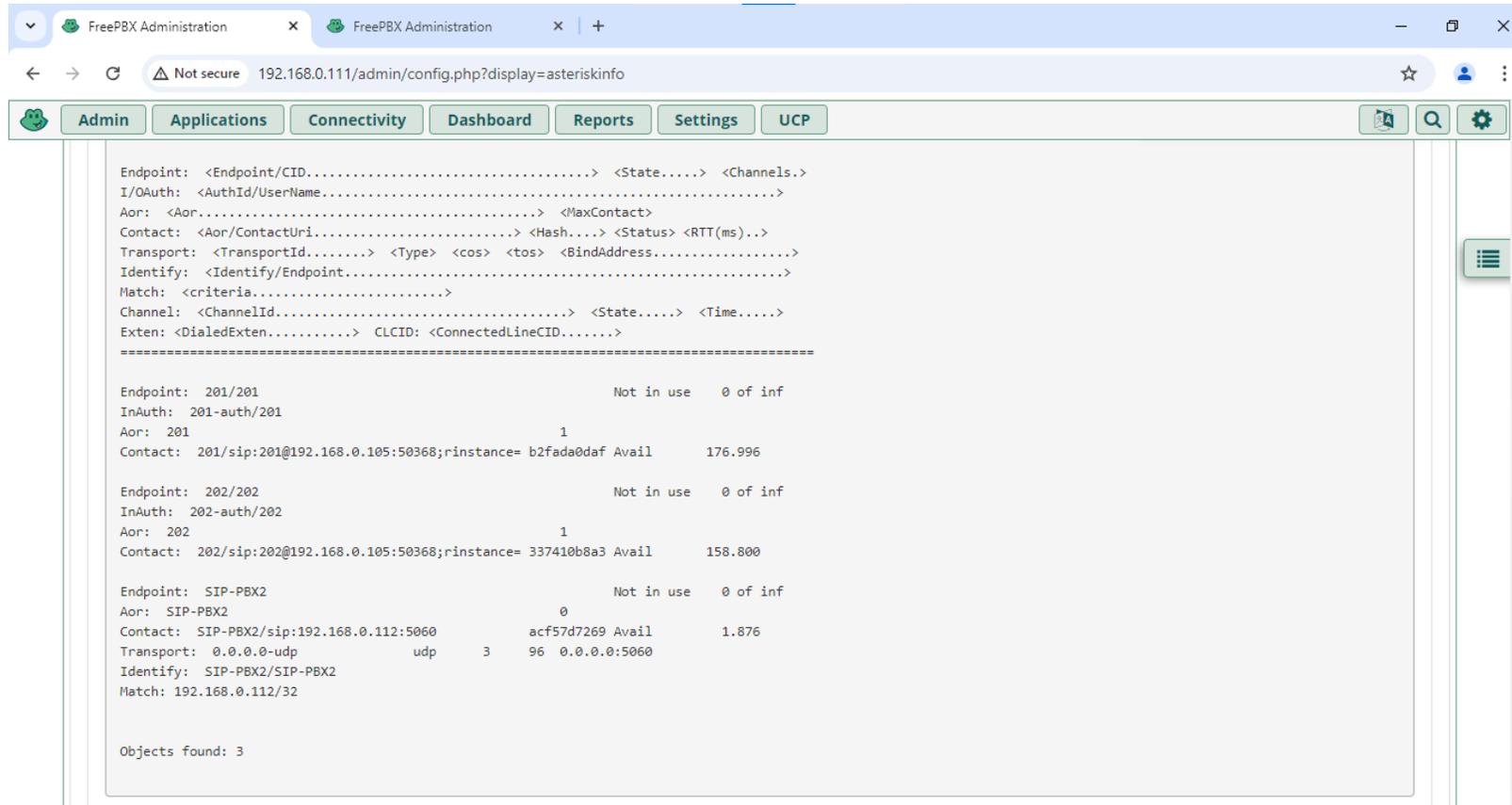


The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.112/admin/config.php?display=trunks. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible in the top right corner. The main content area is titled 'Trunks' and contains a message: 'This page is used to manage various system trunks'. Below this is a '+ Add Trunk' button, a search bar, and a table of trunks. The table has columns for Name, Tech, CallerID, Status, and Actions. Two trunks are listed: IAX-PBX1 (Tech: iax, Status: Enabled) and SIP-PBX1 (Tech: pjsip, Status: Enabled). Below the table, it says 'Showing 1 to 2 of 2 rows'.

Name	Tech	CallerID	Status	Actions
IAX-PBX1	iax		Enabled	 
SIP-PBX1	pjsip		Enabled	 

اعداد خطوط الربط باستخدام SIP

- اذهب الى Asterisk Info > Reports في المقسم الاول او الثاني للتحقق من الربط بينهما



The screenshot shows the FreePBX Administration interface. The browser address bar displays '192.168.0.111/admin/config.php?display=asteriskinfo'. The navigation menu includes 'Admin', 'Applications', 'Connectivity', 'Dashboard', 'Reports', 'Settings', and 'UCP'. The main content area displays the Asterisk Info reports for three endpoints: 201/201, 202/202, and SIP-PBX2. Each report shows details such as InAuth, Aor, Contact, Transport, Identify, Match, Channel, and Exten. The status for each endpoint is 'Not in use'.

```
Endpoint: <Endpoint/CID.....> <State.....> <Channels.>
I/OAuth: <AuthId/UserName.....>
Aor: <Aor.....> <MaxContact>
Contact: <Aor/ContactUri.....> <Hash.....> <Status> <RTT(ms)..>
Transport: <TransportId.....> <Type> <cos> <tos> <BindAddress.....>
Identify: <Identify/Endpoint.....>
Match: <criteria.....>
Channel: <ChannelId.....> <State.....> <Time.....>
Exten: <DialedExten.....> CLCID: <ConnectedLineCID.....>
=====
Endpoint: 201/201                               Not in use   0 of inf
InAuth: 201-auth/201
Aor: 201                                         1
Contact: 201/sip:201@192.168.0.105:50368;rinstance= b2fada0daf Avail 176.996

Endpoint: 202/202                               Not in use   0 of inf
InAuth: 202-auth/202
Aor: 202                                         1
Contact: 202/sip:202@192.168.0.105:50368;rinstance= 337410b8a3 Avail 158.800

Endpoint: SIP-PBX2                               Not in use   0 of inf
Aor: SIP-PBX2                                   0
Contact: SIP-PBX2/sip:192.168.0.112:5060        acf57d7269 Avail 1.876
Transport: 0.0.0.0-udp                          udp          3    96 0.0.0.0:5060
Identify: SIP-PBX2/SIP-PBX2
Match: 192.168.0.112/32

Objects found: 3
```

اعداد المكالمات الصادرة

- عدّل ترتيب الخطوط الرئيسية في اجراء المكالمة الصادرة في المقسم الاول

FreePBX Administration

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=routing&view=form&id=1

Admin Applications Connectivity Dashboard Reports Settings UCP

Outbound Routes

Edit Route: To-PBX2: To-PBX2

Route Settings Dial Patterns Import/Export Patterns Notifications Additional Settings

Route Name To-PBX2

Route CID

Override Extension Yes No

Route Password

Route Type Emergency Intra-Company

Music On Hold? default

Time Match Time Zone: Use System Timezone

Time Match Time Group ---Permanent Route---

Trunk Sequence for Matched Routes

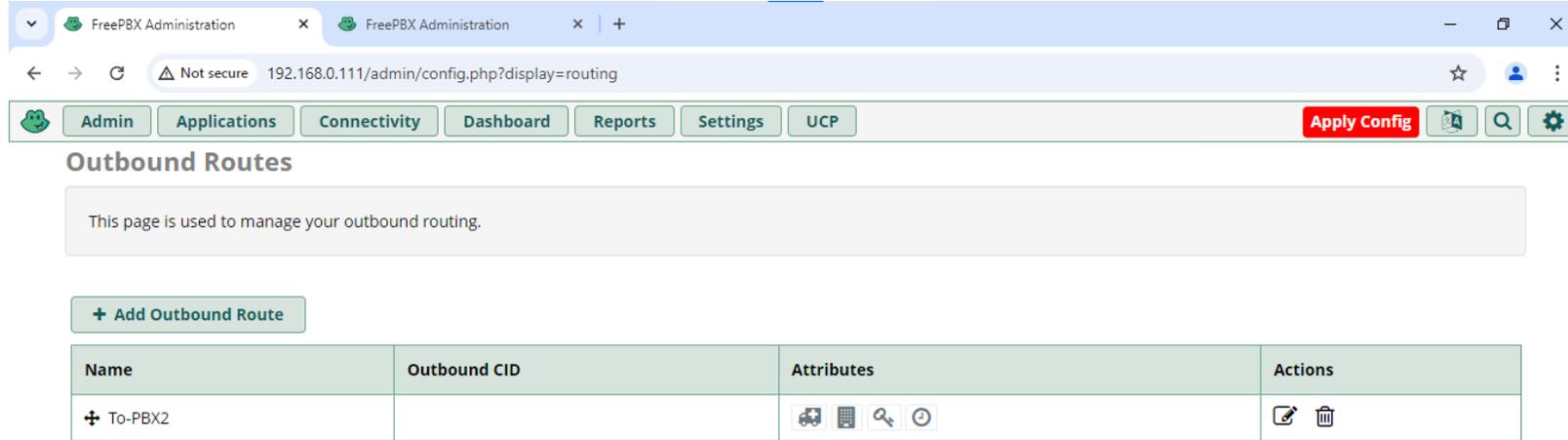
SIP-PBX2

Optional Destination on Congestion Normal Congestion

Submit Duplicate Reset Delete

اعداد المكالمات الصادرة

- انقر على Apply Config لتطبيق الاعدادات الجديدة

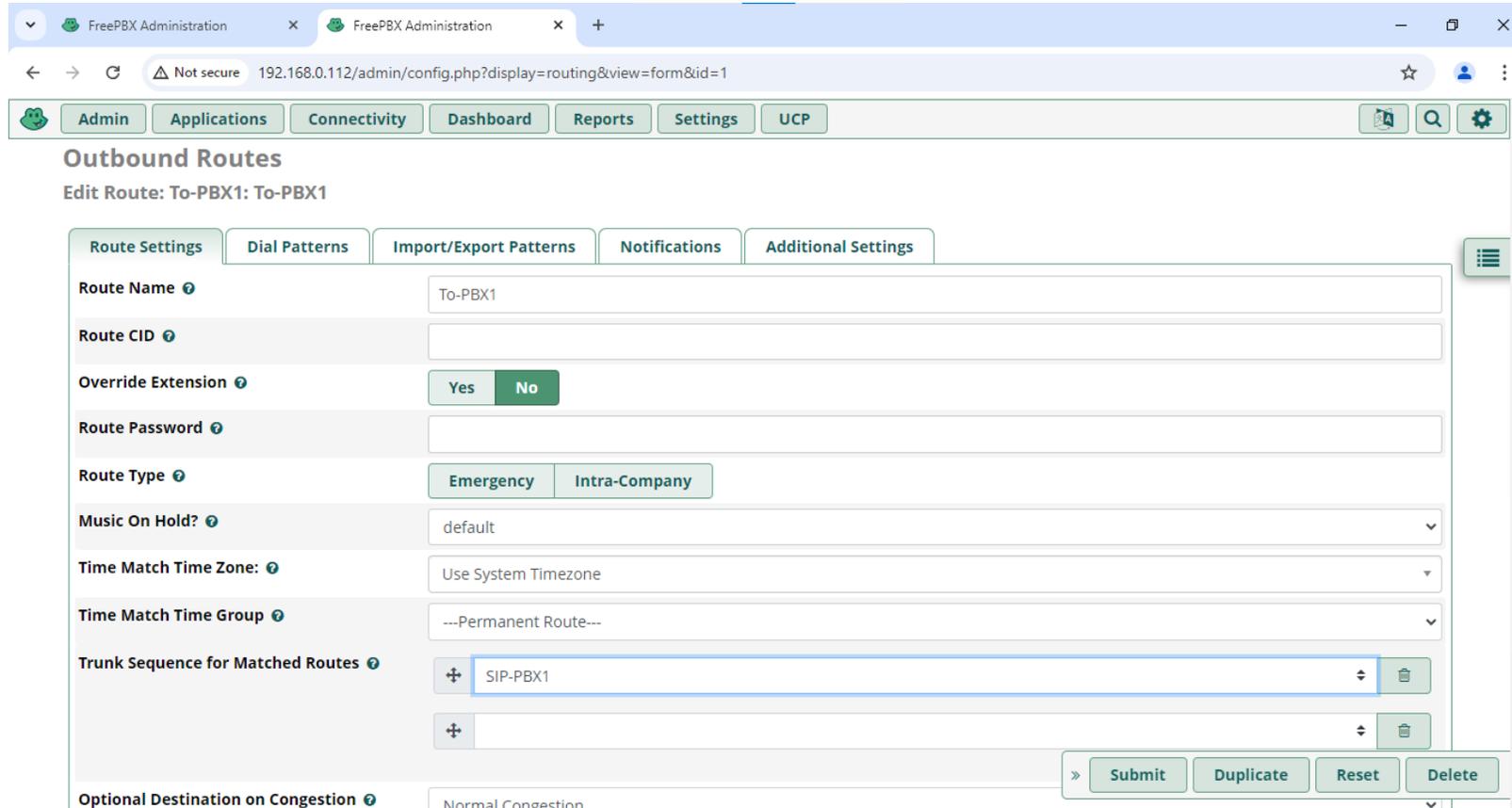


The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.111/admin/config.php?display=routing". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible in the top right. The main content area is titled "Outbound Routes" and contains a message: "This page is used to manage your outbound routing." Below this is a "+ Add Outbound Route" button and a table with the following data:

Name	Outbound CID	Attributes	Actions
+ To-PBX2			

اعداد المكالمات الصادرة

- عدّل ترتيب الخطوط الرئيسية في اجراء المكالمة الصادرة في المقسم الثاني



FreePBX Administration

192.168.0.112/admin/config.php?display=routing&view=form&id=1

Admin Applications Connectivity Dashboard Reports Settings UCP

Outbound Routes

Edit Route: To-PBX1: To-PBX1

Route Settings Dial Patterns Import/Export Patterns Notifications Additional Settings

Route Name: To-PBX1

Route CID:

Override Extension: Yes No

Route Password:

Route Type: Emergency Intra-Company

Music On Hold?: default

Time Match Time Zone: Use System Timezone

Time Match Time Group: ---Permanent Route---

Trunk Sequence for Matched Routes:

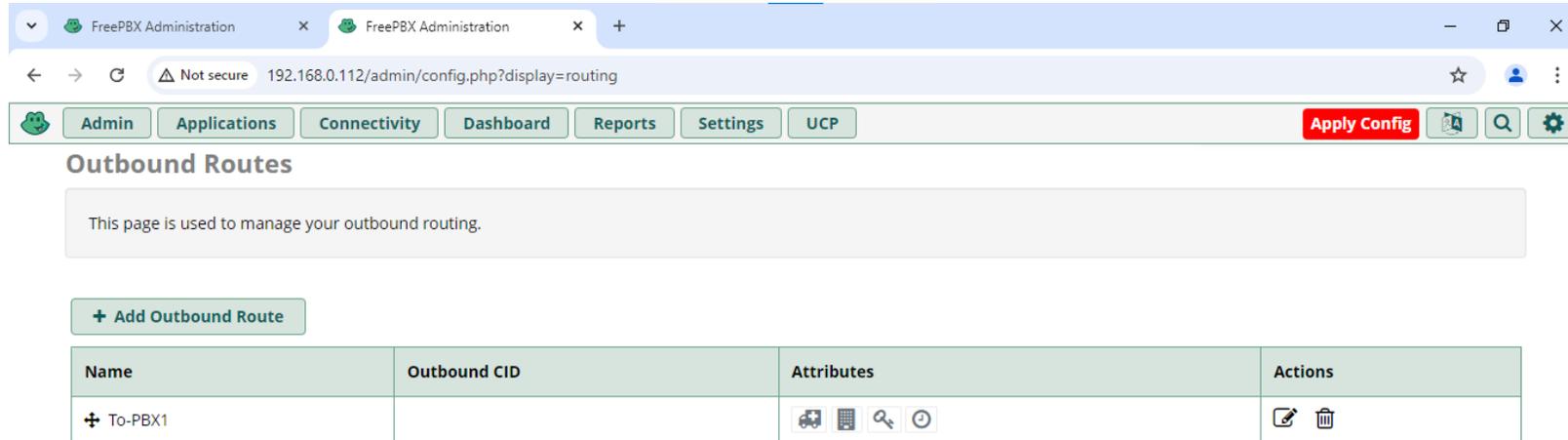
- SIP-PBX1

Optional Destination on Congestion: Normal Congestion

Submit Duplicate Reset Delete

اعداد المكالمات الصادرة

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.112/admin/config.php?display=routing". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible in the top right. The main content area is titled "Outbound Routes" and contains a message: "This page is used to manage your outbound routing." Below this is a "+ Add Outbound Route" button and a table with the following data:

Name	Outbound CID	Attributes	Actions
+ To-PBX1			

اختبار الاتصال

- تحقق من الاتصال بين الخطوط الفرعية في المقسم الاول والثاني



تمرين: ربط مقسمين هاتفين فرعيين باستخدام SIP

- انت مسؤول عن الاتصالات في شركة لديها فرعين متصلين عبر الشبكة، وكل فرع يحتوي على مقسم هاتفي فرعي (PBX) ومهمتك الربط بينهما بحيث يتمكن الموظفون في كل فرع من الاتصال بالفرع الآخر
- المطلوب:

- اعداد الارقام الداخلية: 201، 202، 203 في المقسم الهاتفي الاول
- اعداد مجموعة رنين (204) تتكون من الارقام الداخلية: 201، 202 في المقسم الهاتفي الاول
- اعداد الارقام الداخلية: 301، 302، 303 في المقسم الهاتفي الثاني
- انشاء SIP trunk في المقسمين لتبادل المكالمات بين المقسمين
- اعداد قواعد الاتصال (Dial Plans) في كل مقسم لتوجيه المكالمات بين المقسمين
- اختبر الاتصال بين المقسمين للتأكد من توجيه المكالمات بشكل صحيح
- اختبر الاتصال من الرقم الداخلي 301 الى رقم المجموعة 204

الرد الآلي

- يتيح الرد الآلي (IVR) للمتصلين من تلقي المعلومات او تقديم الطلبات عبر الهاتف دون الحاجة للتحدث مع العاملين في المكتب مباشرة
- عند الاتصال بالمكتب لأول مرة يتم تشغيل قائمة صوتية لتوجيه المتصل الى احد الواجهات مثل خط فرعي او مجموعة رنين



اعداد الرد الآلي على FreePBX

• اذهب الى Admin > System Recordings

The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.111/admin/config.php#`. The top navigation bar includes tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The Admin sidebar is open, listing various system management options. The 'System Recordings' option is highlighted in blue. The main content area shows a 'System Overview' section with a 'Warnings Found' notification, a 'FreePBX - Let Freedom Ring Feed' with several news items, a 'Sangoma Technologies Feed' with news items, and 'FreePBX Statistics' with expandable sections for Asterisk, Uptime, CPU, Memory, Disk, and Network. The bottom status bar indicates the interface is for 'ens33'.

اعداد الرد الآلي على FreePBX

- انقر على + لاضافة تسجيل صوتي



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=recordings

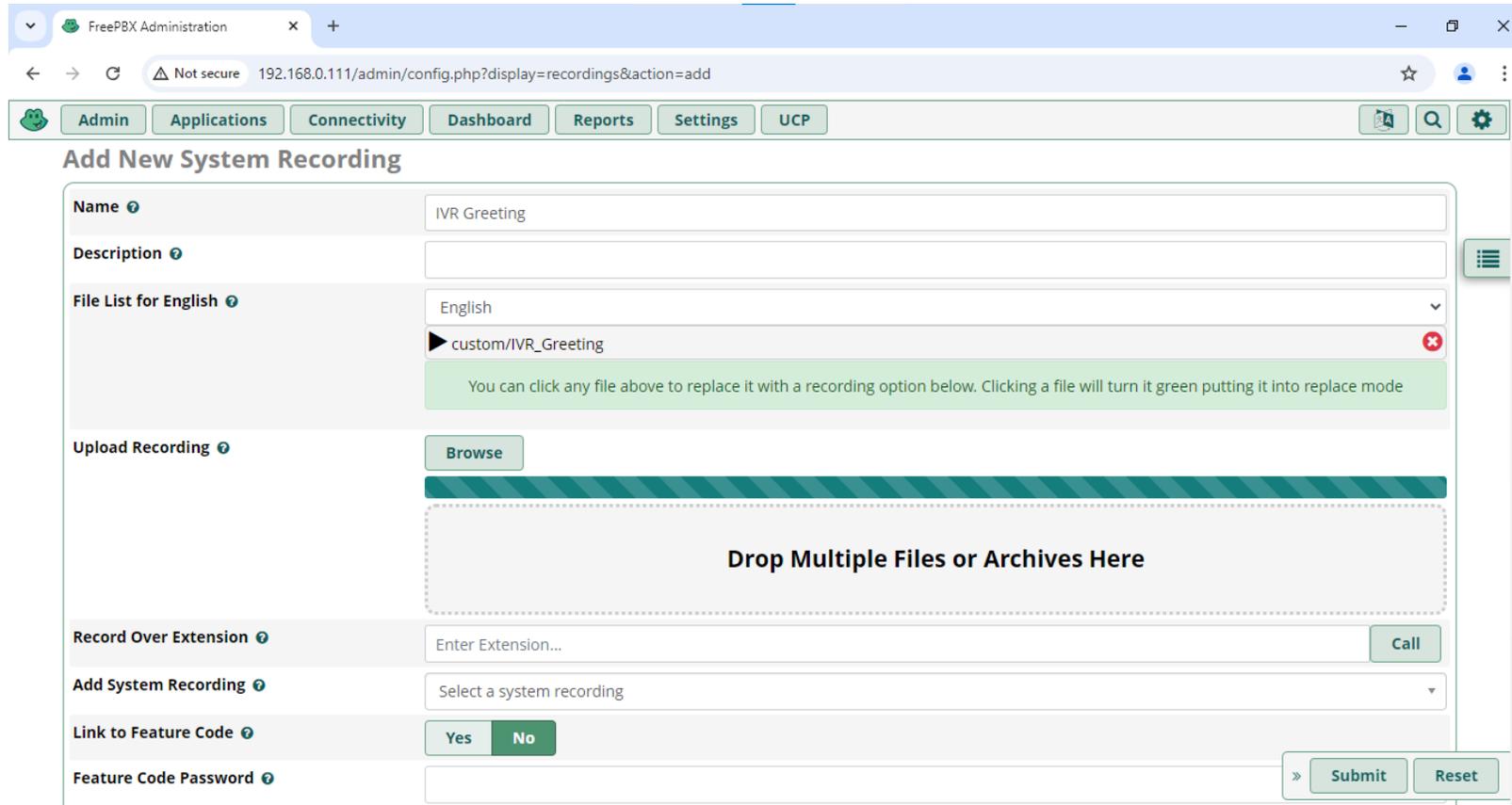
Admin Applications Connectivity Dashboard Reports Settings UCP

+ Add Recording Search

Display Name	Description	Supported Languages	Actions
No matching records found			

اعداد الرد الآلي على FreePBX

- اصف تسمية توضيحية للتسجيل الصوتي وتحميل ملف التسجيل (Upload Recording)



The screenshot displays the 'Add New System Recording' form in the FreePBX Administration interface. The form is titled 'Add New System Recording' and is located at the URL 192.168.0.111/admin/config.php?display=recordings&action=add. The form contains several fields and options:

- Name:** IVR Greeting
- Description:** (Empty field)
- File List for English:** English (Language dropdown), custom/IVR_Greeting (File selection dropdown, highlighted in green). A green message box below states: "You can click any file above to replace it with a recording option below. Clicking a file will turn it green putting it into replace mode".
- Upload Recording:** Browse button and a large dashed box labeled "Drop Multiple Files or Archives Here".
- Record Over Extension:** Enter Extension... (Text input) and Call button.
- Add System Recording:** Select a system recording (Dropdown menu).
- Link to Feature Code:** Yes (Selected) and No (Unselected) buttons.
- Feature Code Password:** (Empty text input).

At the bottom right of the form, there are Submit and Reset buttons.

اعداد الرد الآلي على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=recordings

Admin Applications Connectivity Dashboard Reports Settings UCP Apply Config

+ Add Recording Search

Display Name	Description	Supported Languages	Actions
IVR Greeting		English	 

Showing 1 to 1 of 1 rows

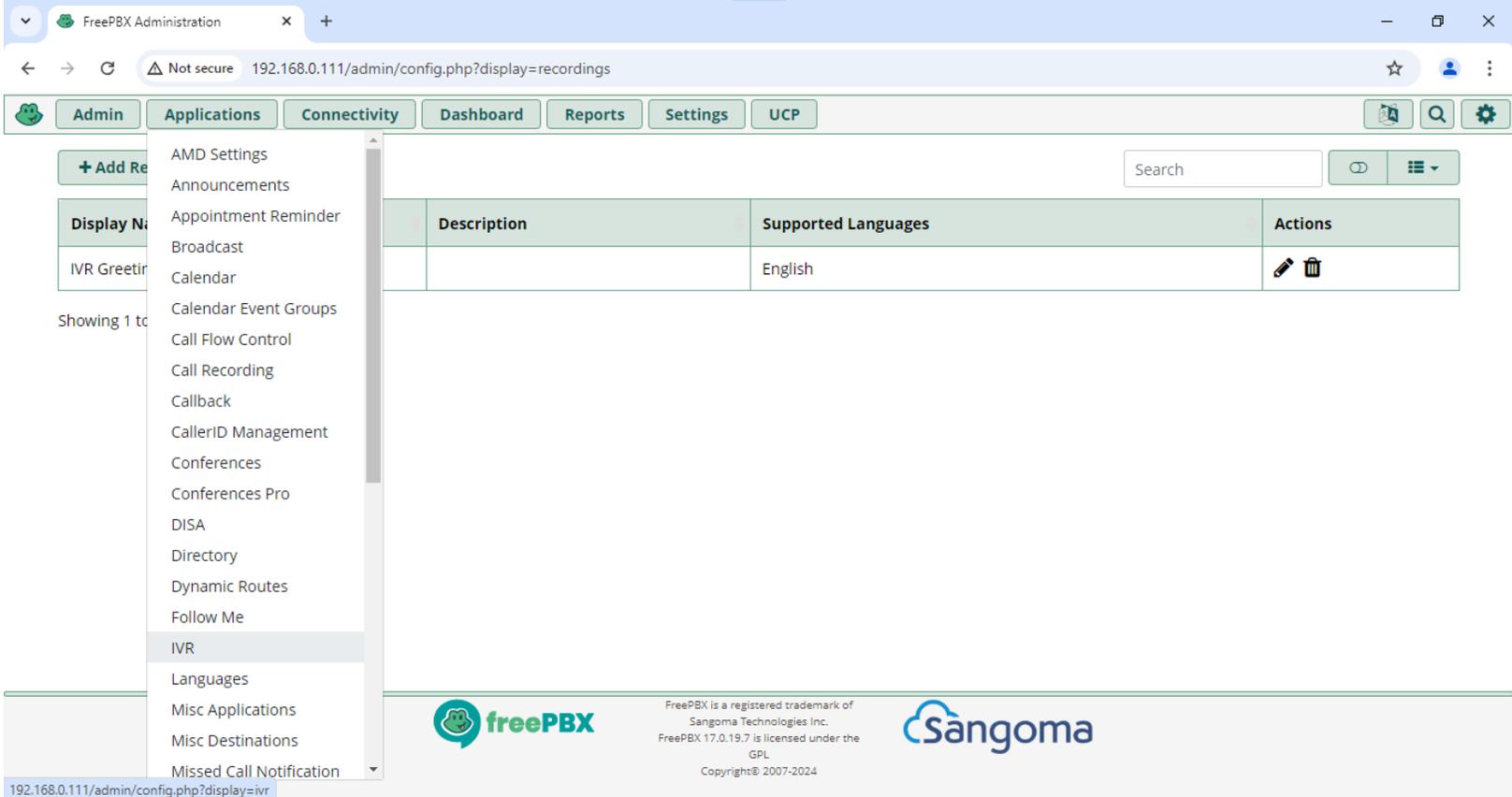


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اعداد الرد الآلي على FreePBX

• اذهب الى Applications > IVR



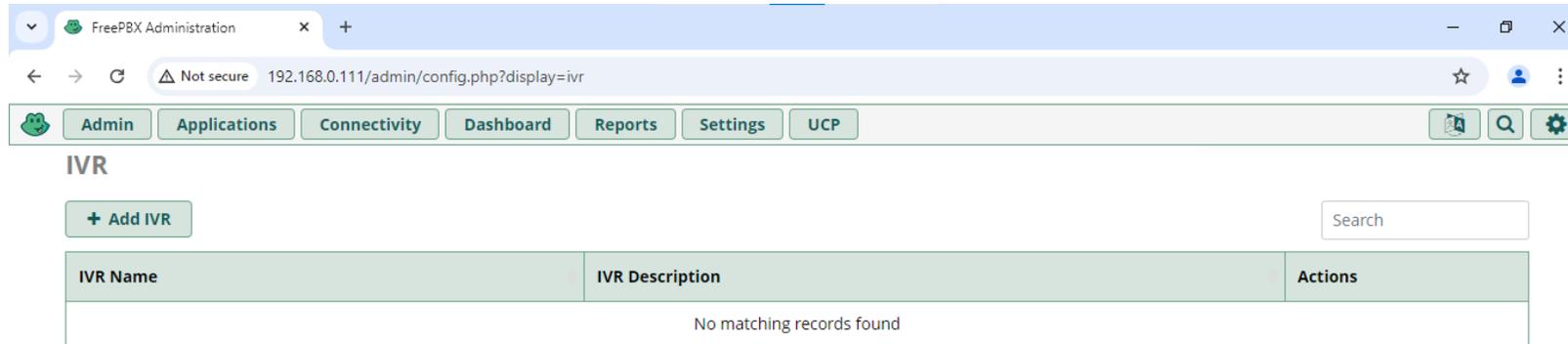
The screenshot shows the FreePBX Administration interface in a web browser. The browser address bar displays "192.168.0.111/admin/config.php?display=recordings". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". The "Applications" menu is expanded, showing a list of options including "AMD Settings", "Announcements", "Appointment Reminder", "Broadcast", "Calendar", "Calendar Event Groups", "Call Flow Control", "Call Recording", "Callback", "CallerID Management", "Conferences", "Conferences Pro", "DISA", "Directory", "Dynamic Routes", "Follow Me", "IVR", "Languages", "Misc Applications", "Misc Destinations", and "Missed Call Notification". The "IVR" option is highlighted. The main content area displays a table with the following structure:

Description	Supported Languages	Actions
	English	 

The footer of the interface includes the FreePBX logo, the text "FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright © 2007-2024", and the Sangoma logo.

اعداد الرد الآلي على FreePBX

- انقر على + لاضافة قائمة IVR



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=ivr

Admin Applications Connectivity Dashboard Reports Settings UCP

IVR

+ Add IVR Search

IVR Name	IVR Description	Actions
No matching records found		



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اعداد الرد الآلي على FreePBX

- اصف تسمية توضيحية لقائمة IVR واختر الاعلان الصوتي (Announcement)

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=ivr&action=add

Admin Applications Connectivity Dashboard Reports Settings UCP

Add IVR

IVR General Options

IVR Name

IVR Description

IVR DTMF Options

Announcement

Enable Direct Dial

Ignore Trailing # Key

Force Strict Dial Timeout

Timeout

Alert Info

Ringer Volume Override

Invalid Retries

Invalid Retry Recording

Append Announcement to Invalid

اعداد الرد الآلي على FreePBX

- ادخل بنود قائمة IVR لتوجيه المتصل الى احد الوجهات عبر الضغط على رقم معين

FreePBX Administration

192.168.0.111/admin/config.php?display=ivr&action=add

Admin Applications Connectivity Dashboard Reports Settings UCP

Timeout Recording: Default

Timeout Destination: None

Return to IVR after VM: Yes No

IVR Entries

Digits	Destination	Return	Delete
1	Extensions 201 Sales	Yes No	🗑️
2	Extensions 202 Support	Yes No	🗑️
0	Extensions 200 Operator	Yes No	🗑️

+Add Another Entry

> Submit Duplicate Reset

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freePBX Sangoma

اعداد الرد الآلي على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=ivr

Admin Applications Connectivity Dashboard Reports Settings UCP Apply Config

IVR

+ Add IVR Search

IVR Name	IVR Description	Actions
Main IVR		 

Showing 1 to 1 of 1 rows

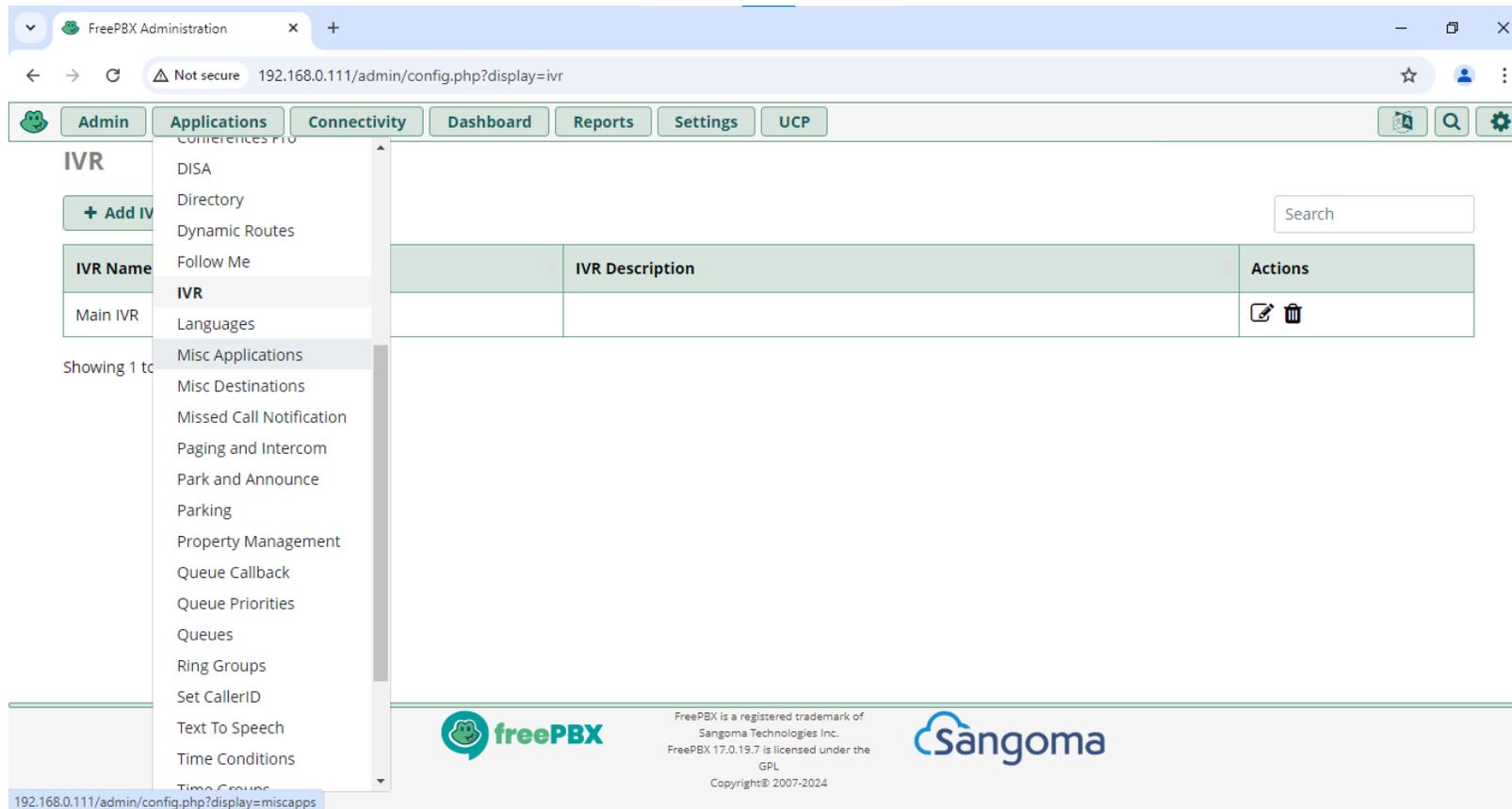


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اعداد الرد الآلي على FreePBX

- اذهب الى Misc Applications > Applications

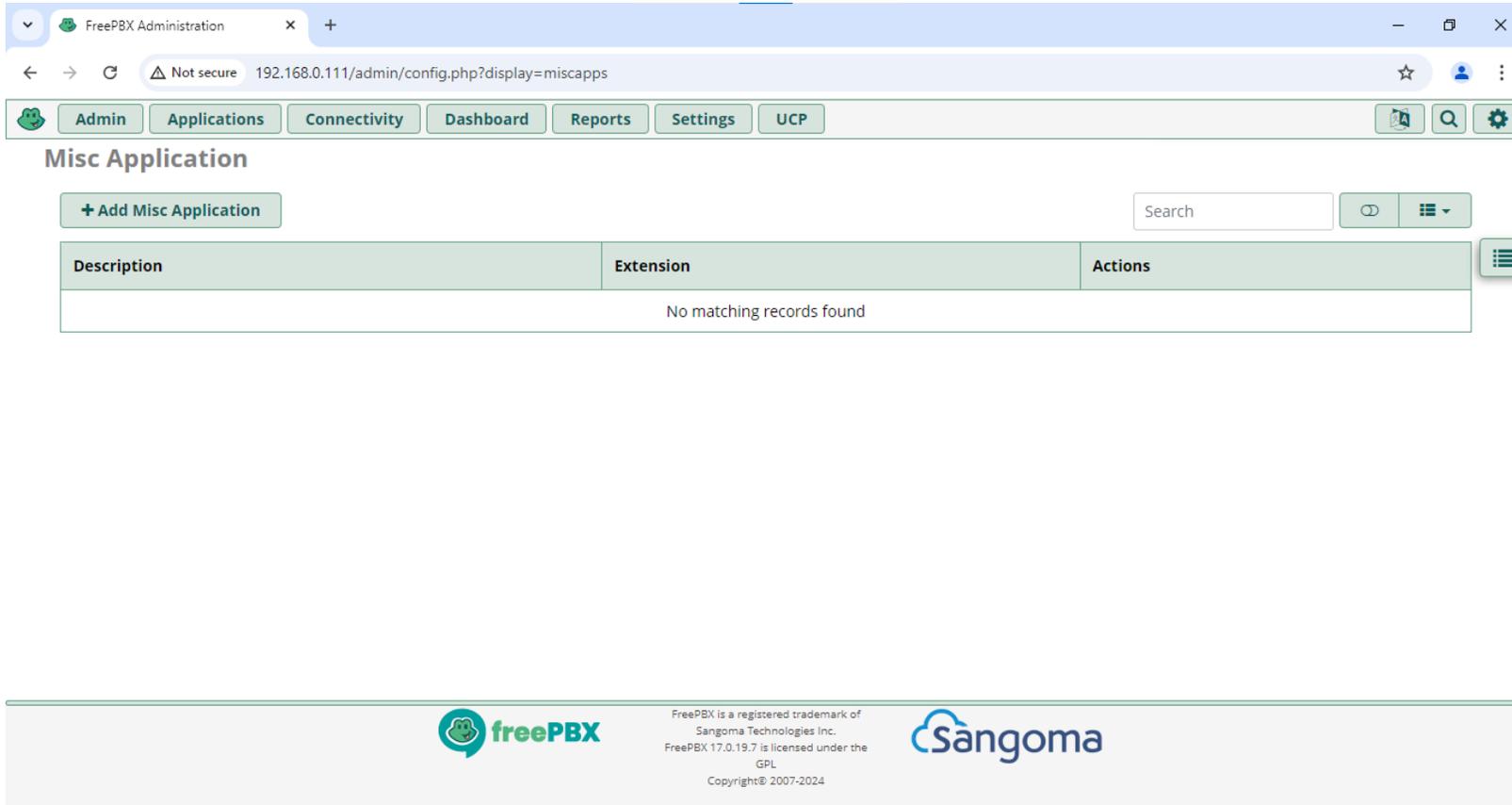


The screenshot shows the FreePBX Administration web interface. The browser address bar displays '192.168.0.111/admin/config.php?display=ivr'. The top navigation bar includes tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The left sidebar is open to the 'IVR' section, with a dropdown menu showing various options. The 'Misc Applications' option is highlighted. The main content area shows a table with columns for 'IVR Name', 'IVR Description', and 'Actions'. The table contains one entry for 'Main IVR'. The footer of the page includes the FreePBX logo, the Sangoma logo, and copyright information.

IVR Name	IVR Description	Actions
Main IVR		 

اعداد الرد الآلي على FreePBX

- انقر على + لاضافة رمز مختصر لقائمة IVR



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.111/admin/config.php?display=miscapps. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'Misc Application' and contains a '+ Add Misc Application' button, a search bar, and a table with columns for Description, Extension, and Actions. The table currently displays 'No matching records found'.

Description	Extension	Actions
No matching records found		

اعداد الرد الآلي على FreePBX

- اصف تسمية توضيحية لقائمة IVR ورمز مختصر للاتصال من الخطوط الفرعية

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=miscapps&action=add

Admin Applications Connectivity Dashboard Reports Settings UCP

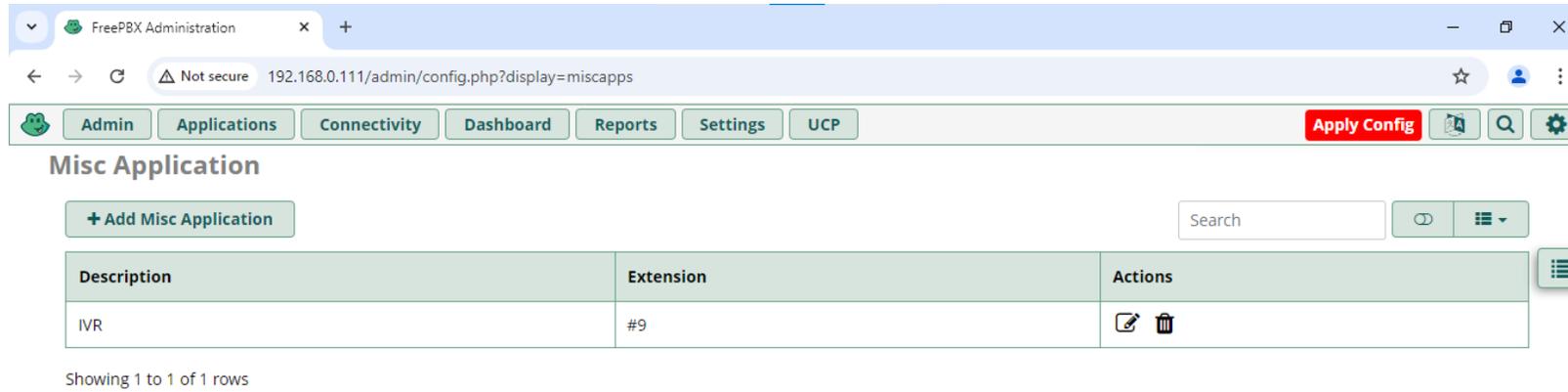
Misc Application

Enable	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Description	IVR
Feature Code	#9
Destination	IVR Main IVR

» Submit Reset

اعداد الرد الآلي على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.111/admin/config.php?display=miscapps". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible. The main content area is titled "Misc Application" and features a "+ Add Misc Application" button, a search bar, and a table with one row for an IVR application.

Description	Extension	Actions
IVR	#9	 

Showing 1 to 1 of 1 rows

اختبار الاتصال

- تحقق من التسجيل الصوتي وقائمة IVR عبر الاتصال على الرمز المختصر



تمرين: اعداد مقسم هاتفي فرعي مع الرد الآلي

- انت مسؤول عن مقسم هاتفي فرعي (PBX) في شركة تتكون من قسم المبيعات وقسم الدعم الفني وموظف الاستعلامات، ولديك مهمة اعداد الرد الآلي (IVR) لتوجيه المتصلين الى الاقسام
- المطلوب:
- اعداد الارقام الداخلية: 201 لقسم المبيعات، 202 لقسم الدعم الفني، 200 لموظف الاستعلامات
- اعداد التسجيل الصوتي لتقديم خيارات الاقسام: 1 المبيعات، 2 الدعم الفني، 0 الاستعلامات
- اعداد قائمة الرد الآلي لتوجيه المتصلين الى الارقام الداخلية وفق الخيارات المتاحة
- اختبر الاتصال على الرمز المختصر #9 للتحقق من التسجيل الصوتي وقائمة الرد الآلي

اعداد المكالمات الواردة على FreePBX

• اذهب الى Connectivity > Inbound Routes

The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.111/admin/config.php?display=index`. The navigation menu at the top includes 'Admin', 'Applications', 'Connectivity', 'Dashboard', 'Reports', 'Settings', and 'UCP'. The 'Connectivity' menu is expanded, showing options such as 'API', 'Custom Contexts', 'Custom Contexts Admin', 'DAHDI Channel DIDs', 'Extensions', 'Firewall', 'Inbound Routes' (which is highlighted), 'Metered SIP trunking', 'Outbound Call Limit', 'Outbound Routes', 'SIPSTATION', 'SMS Webhook', and 'Trunks'. The main content area features a 'FreePBX - Let Freedom Ring Feed' with several news items, a 'Sangoma Technologies Feed' with news articles, and 'FreePBX Statistics' with expandable sections for Asterisk, Uptime, CPU, Memory, Disk, and Network. A 'Live Network Usage' section at the bottom shows 'Interface ens33'.

اعداد المكالمات الواردة على FreePBX

• انقر على + لاضافة Inbound Route

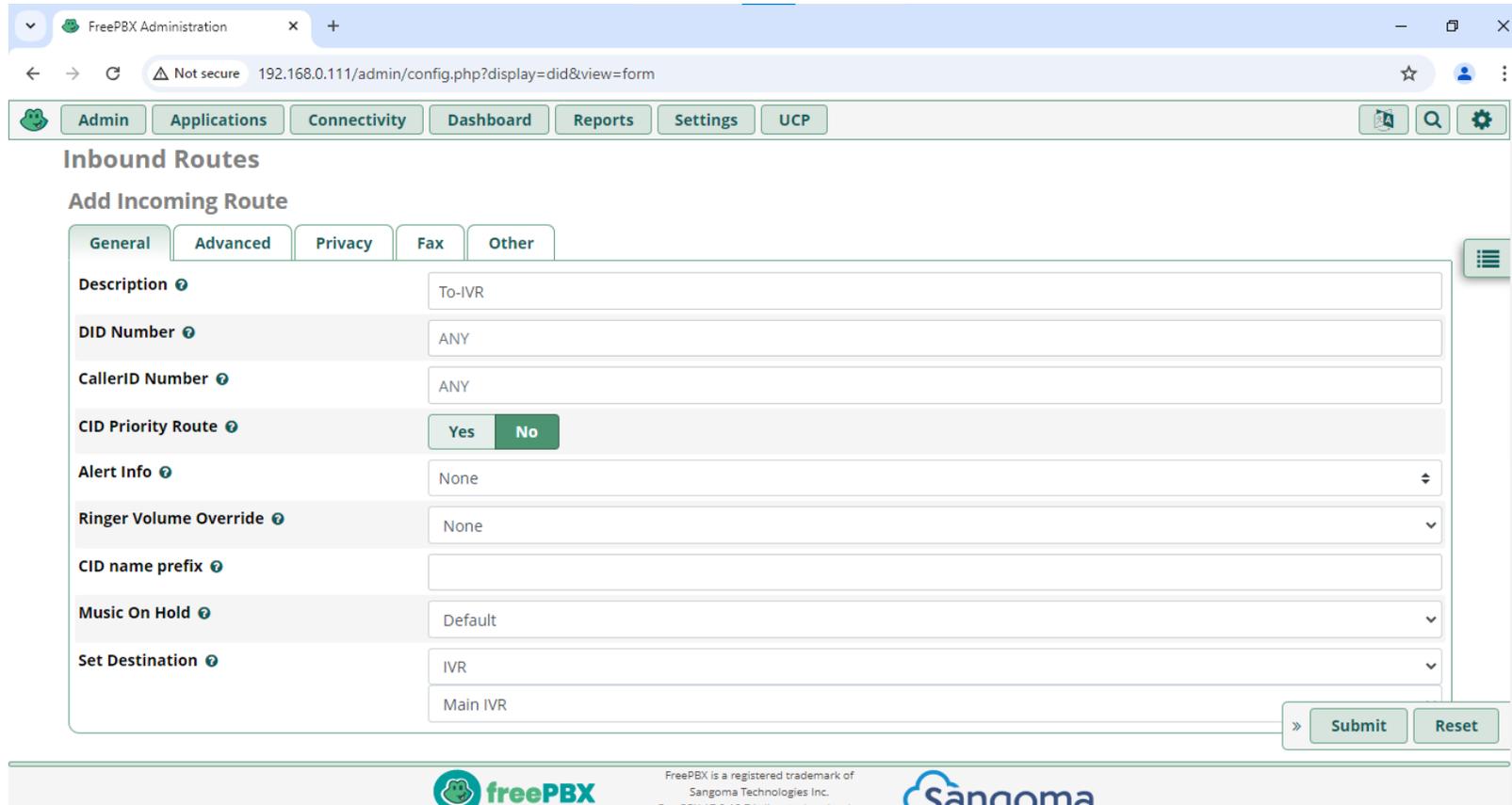
Inbound Routes

[+ Add Inbound Route](#)

DID	CID	Description	Destination	Actions
No matching records found				

اعداد المكالمات الواردة على FreePBX

- اصف تسمية توضيحية للمكالمة الواردة وحدد الوجهة (Set Destination)



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=did&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

Inbound Routes

Add Incoming Route

General Advanced Privacy Fax Other

Description To-IVR

DID Number ANY

CallerID Number ANY

CID Priority Route Yes No

Alert Info None

Ringer Volume Override None

CID name prefix

Music On Hold Default

Set Destination IVR
Main IVR

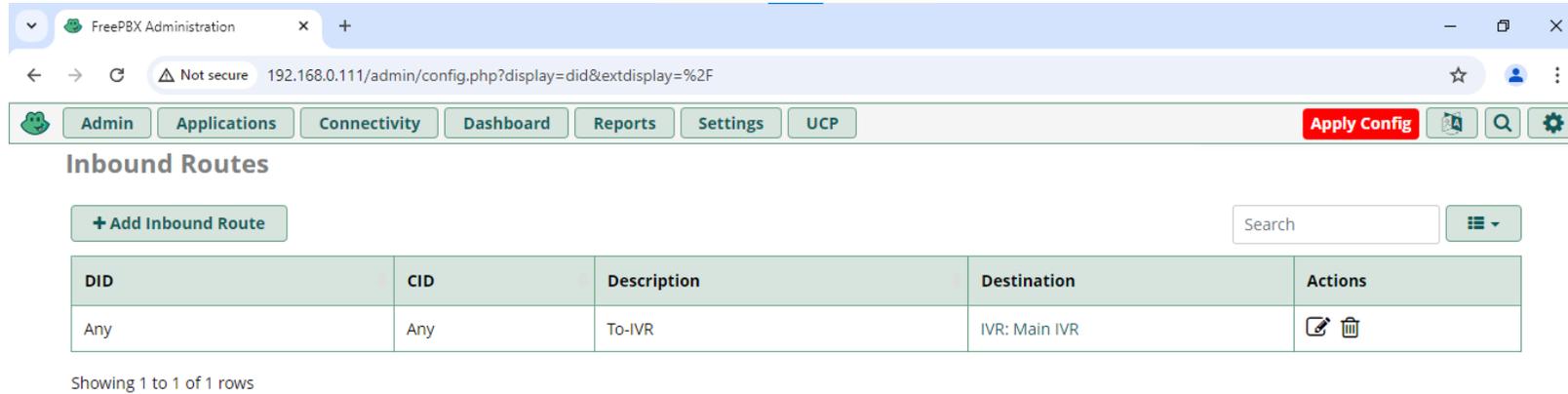
Submit Reset

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freePBX Sangoma

اعداد المكالمات الواردة على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=did&extdisplay=%2F

Admin Applications Connectivity Dashboard Reports Settings UCP Apply Config

Inbound Routes

+ Add Inbound Route Search

DID	CID	Description	Destination	Actions
Any	Any	To-IVR	IVR: Main IVR	 

Showing 1 to 1 of 1 rows

اعداد خطوط الربط باستخدام SIP

- عدّل اعدادات الاتصال مع المقسم الثاني في تبويب PJSIP Settings > General

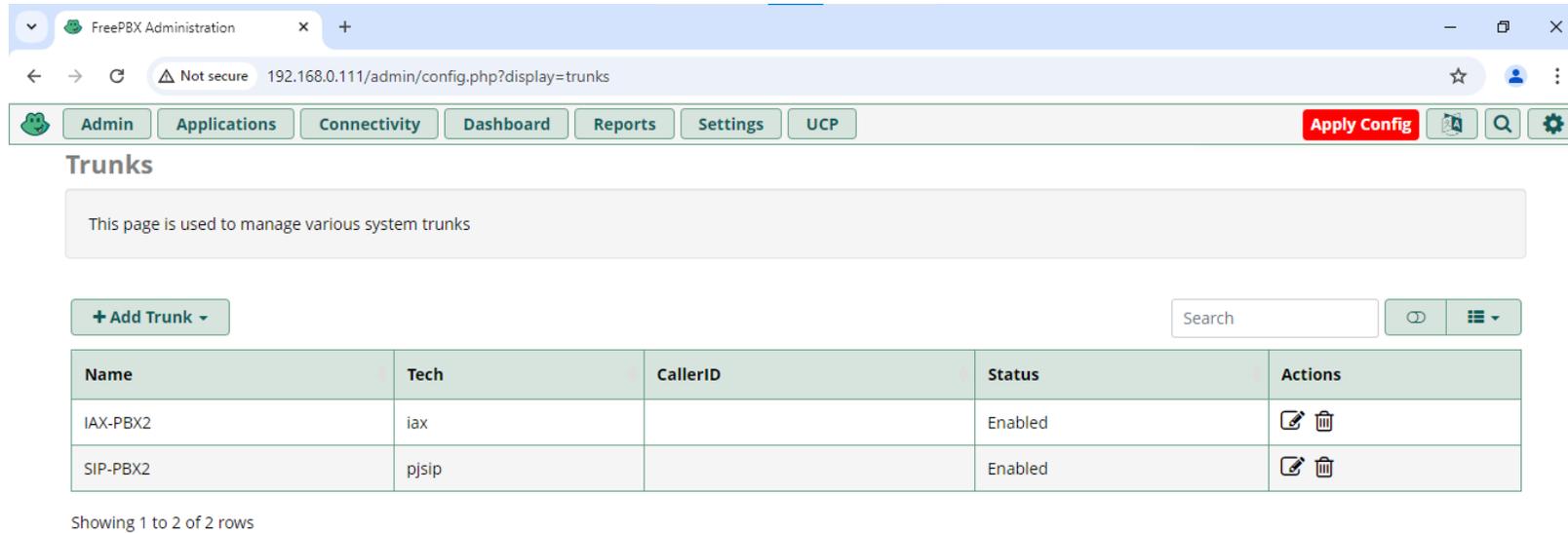
The screenshot displays the FreePBX Administration interface. The browser address bar shows the URL: `192.168.0.111/admin/config.php?display=trunks&tech=pjsip&extdisplay=OUT_2`. The navigation menu includes: Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'PJSIP Settings' and has three sub-tabs: General, Advanced, and Codecs. The 'General' tab is active, showing the following fields:

- Username: Authentication Disabled
- Auth username: Authentication Disabled
- Secret: Authentication Disabled
- Authentication: Outbound, Inbound, Both, **None**
- Registration: Send, Receive, **None**
- Language Code: Default
- SIP Server: 192.168.0.112
- SIP Server Port: (empty)
- Context: **from-trunk** (highlighted with a red box)
- Transport: 0.0.0.0-udp

At the bottom of the form, there are buttons for Submit, Duplicate, Reset, and Delete. The footer of the page includes the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the', and the Sangoma logo.

اعداد خطوط الربط باستخدام SIP

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.111/admin/config.php?display=trunks. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible in the top right corner. The main content area is titled 'Trunks' and contains a message: 'This page is used to manage various system trunks'. Below this message is a '+ Add Trunk' button, a search input field, and a table of trunks. The table has columns for Name, Tech, CallerID, Status, and Actions. Two trunks are listed: IAX-PBX2 (Tech: iax, Status: Enabled) and SIP-PBX2 (Tech: pjsip, Status: Enabled). Below the table, it says 'Showing 1 to 2 of 2 rows'.

Name	Tech	CallerID	Status	Actions
IAX-PBX2	iax		Enabled	 
SIP-PBX2	pjsip		Enabled	 

اعداد خطوط الربط باستخدام SIP

- عدّل اعدادات الاتصال مع المقسم الاول في تبويب PJSIP Settings > General

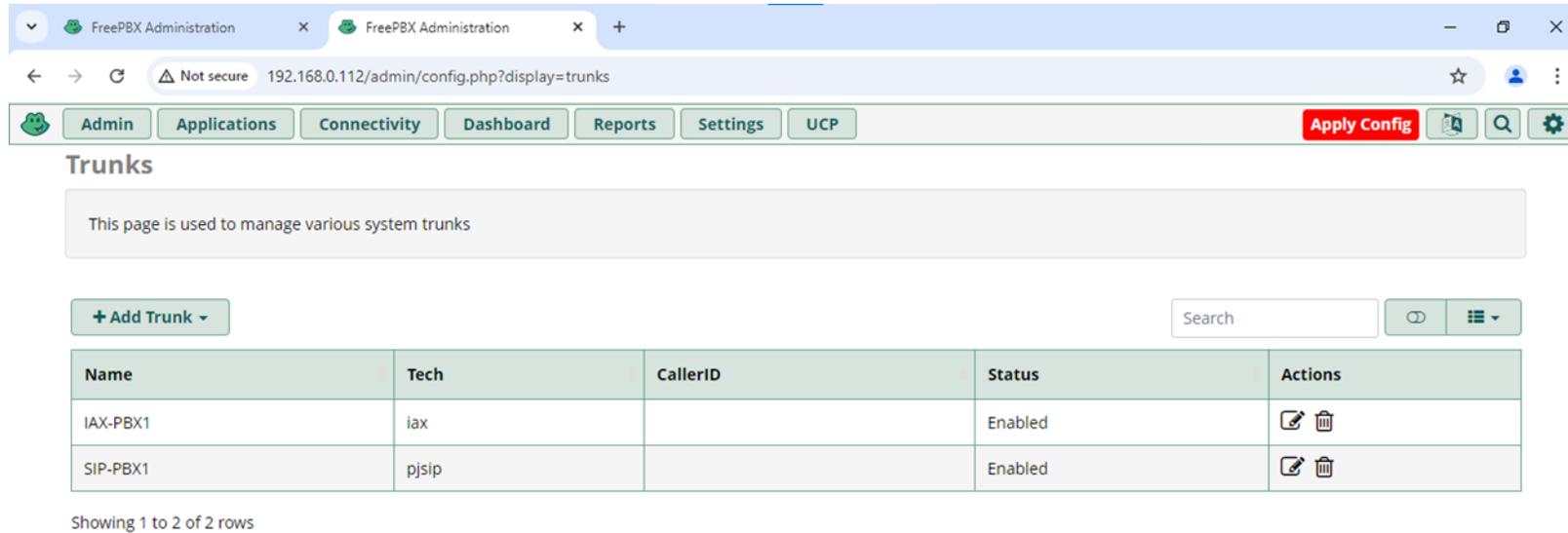
The screenshot displays the FreePBX Administration interface. The browser address bar shows the URL: `192.168.0.112/admin/config.php?display=trunks&tech=pjsip&extdisplay=OUT_2`. The navigation menu includes 'Admin', 'Applications', 'Connectivity', 'Dashboard', 'Reports', 'Settings', and 'UCP'. The 'Settings' menu is expanded to show 'General', 'Dial Number Manipulation Rules', and 'pjsip Settings'. The 'pjsip Settings' page has three tabs: 'General', 'Advanced', and 'Codecs'. The 'General' tab is active, showing the following fields:

Username	Authentication Disabled
Auth username	Authentication Disabled
Secret	Authentication Disabled
Authentication	<input type="radio"/> Outbound <input type="radio"/> Inbound <input type="radio"/> Both <input checked="" type="radio"/> None
Registration	<input type="radio"/> Send <input type="radio"/> Receive <input checked="" type="radio"/> None
Language Code	Default
SIP Server	192.168.0.111
SIP Server Port	
Context	from-trunk
Transport	0.0.0.0-udp

At the bottom of the form, there are four buttons: 'Submit', 'Duplicate', 'Reset', and 'Delete'. The footer of the page includes the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the...', and the Sangoma logo.

اعداد خطوط الربط باستخدام SIP

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.112/admin/config.php?display=trunks. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible in the top right corner. The main content area is titled 'Trunks' and contains a message: 'This page is used to manage various system trunks'. Below this is a '+ Add Trunk' button and a search field. A table lists the existing trunks:

Name	Tech	CallerID	Status	Actions
IAX-PBX1	iax		Enabled	 
SIP-PBX1	pjsip		Enabled	 

Showing 1 to 2 of 2 rows

اختبار الاتصال

- تحقق من التسجيل الصوتي وقائمة IVR عبر الاتصال من المقسم الثاني على المقسم الاول



تمرين: اعداد مقسم هاتفي فرعي مع الرد الآلي

- انت مسؤول عن مقسم هاتفي فرعي (PBX) في شركة تتكون من قسم المبيعات وقسم الدعم الفني وموظف الاستعلامات، ولديك مهمة اعداد الرد الآلي (IVR) لتوجيه المتصلين الى الاقسام
- المطلوب:
- اعداد الارقام الداخلية: 201 لقسم المبيعات، 202 لقسم الدعم الفني، 200 لموظف الاستعلامات
- اعداد التسجيل الصوتي لتقديم خيارات الاقسام: 1 المبيعات، 2 الدعم الفني، 0 الاستعلامات
- اعداد قائمة الرد الآلي لتوجيه المتصلين الى الارقام الداخلية وفق الخيارات الصوتية
- اعداد قواعد الاتصال لتوجيه المكالمات الواردة الى قائمة الرد الآلي
- اختبار الاتصال على المقسم الهاتفي للتحقق من التسجيل الصوتي وقائمة الرد الآلي

تمرين: اعداد مقسم هاتفي فرعي مع الرد الآلي

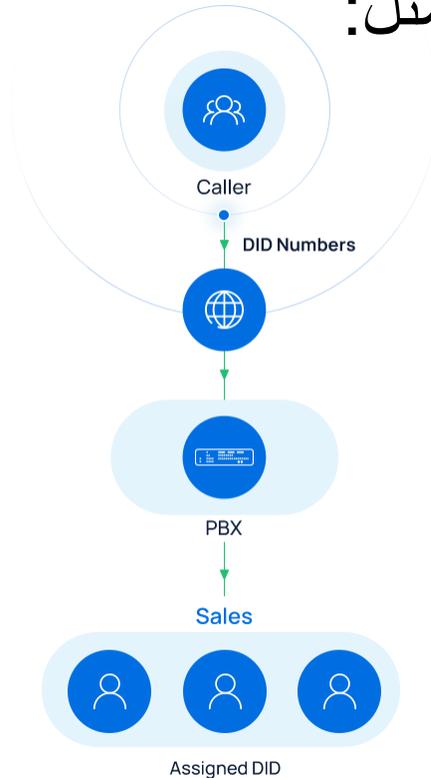
- انت مسؤول عن مقسم هاتفي فرعي (PBX) في شركة تتكون من قسم المبيعات وقسم الدعم الفني وموظف الاستعلامات، ولديك مهمة اعداد الرد الآلي (IVR) لتوجيه المتصلين الى الاقسام
- المطلوب:
- اعداد الارقام الداخلية: 201 لقسم المبيعات 202-203 لقسم الدعم الفني 200 لموظف الاستعلامات
- اعداد مجموعة رنين لقسم الدعم الفني (204) تتكون من الارقام الداخلية: 202، 203 واذا لم يتم الرد على المكالمة خلال 20 ثانية يتم تحويل المكالمة الى موظف الاستعلامات
- اعداد التسجيل الصوتي لتقديم خيارات الاقسام: 1 المبيعات، 2 الدعم الفني، 0 الاستعلامات
- اعداد قائمة الرد الآلي لتوجيه المتصلين الى الارقام الداخلية ومجموعة الرنين وفق الخيارات الصوتية
- اعداد قواعد الاتصال لتوجيه المكالمات الواردة الى قائمة الرد الآلي
- اختبر الاتصال على المقسم الهاتفي للتحقق من التسجيل الصوتي وقائمة الرد الآلي

تمرين: اعداد مقسم هاتفي فرعي مع الرد الآلي

- انت مسؤول عن مقسم هاتفي فرعي (PBX) في شركة تتكون من قسم المبيعات وقسم الدعم الفني وموظف الاستعلامات، ولديك مهمة اعداد الرد الآلي (IVR) لتوجيه المتصلين الى الاقسام
- المطلوب:
- اعداد الارقام الداخلية: 201 لقسم المبيعات 202-203 لقسم الدعم الفني 200 لموظف الاستعلامات
- اعداد مجموعة رنين لقسم الدعم الفني (204) تتكون من الارقام الداخلية: 202، 203
- اعداد التسجيل الصوتي لتقديم خيارات الاقسام: 1 المبيعات، 2 الدعم الفني، 0 الاستعلامات
- اعداد قائمة الرد الآلي لتوجيه المتصلين الى الارقام الداخلية ومجموعة الرنين وفق الخيارات الصوتية
- اعداد قواعد الاتصال لتوجيه المكالمات الواردة الى مجموعة الرنين واذا لم يتم الرد على المكالمة خلال 20 ثانية يتم تحويل المكالمة الى قائمة الرد الآلي
- اختبر الاتصال على المقسم الهاتفي للتحقق من التسجيل الصوتي وقائمة الرد الآلي

توجيه المكالمات

- تختلف المقاسم الهاتفية في كيفية توجيه المكالمات (Call Routing)، وفي معظم الحالات يتم توجيه المتصل الى قائمة الرد الآلي (IVR) ثم توجيه المكالمة الواردة الى الوجهة المطلوبة مثل رقم فرعي او مجموعة رنين وفقا لمجموعة من العوامل مثل:



- قائمة الرد الآلي (IVR): رقم الاختيار من القائمة
- وقت المكالمة: خلال ساعات العمل او خارج اوقات العمل
- رقم المتصل (Caller ID): رقم المكالمة الواردة
- الاتصال الداخلي المباشر (DID): مثل خط المبيعات المباشر

شروط الوقت

- تستخدم شروط الوقت (Time Conditions) في تحديد وجهة المكالمات بناء على الوقت عند تلقي المكالمات الواردة او الصادرة
- يتم التحقق من شروط الوقت عن طريق مجموعات الوقت (Time Groups) التي تحدد الفترات الزمنية مثل ساعات العمل والعطلات



اعداد الرد الآلي

• اذهب الى Admin > System Recordings

The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.111/admin/config.php#`. The top navigation bar includes tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The left sidebar menu is open, with 'System Recordings' highlighted. The main content area shows a 'System Overview' section with a 'Welcome to FreePBX' message and a 'Warnings Found' notification. Below this, there are sections for 'FreePBX - Let Freedom Ring Feed', 'Sangoma Technologies Feed', and 'FreePBX Statistics'. The bottom status bar indicates the current page is `192.168.0.111/admin/config.php?display=recordings` and the interface is for `Interface ens33`.

اعداد الرد الآلي

- انقر على + لاضافة تسجيل صوتي

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=recordings

Admin Applications Connectivity Dashboard Reports Settings UCP

+ Add Recording Search

Display Name	Description	Supported Languages	Actions
IVR Greeting		English	

Showing 1 to 1 of 1 rows

اعداد الرد الآلي

- اصف تسمية توضحية للتسجيل الصوتي وتحميل ملف التسجيل الصوتي

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=recordings&action=add

Admin Applications Connectivity Dashboard Reports Settings UCP

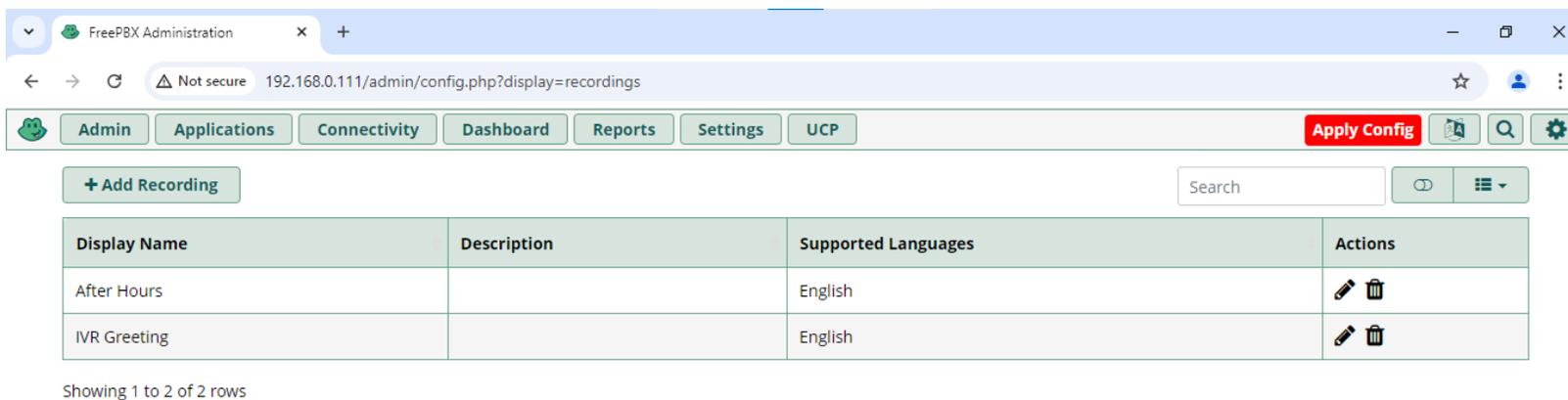
Add New System Recording

Name	After Hours
Description	
File List for English	English ▶ custom/After_Hours
Upload Recording	Browse Drop Multiple Files or Archives Here
Record Over Extension	Enter Extension... Call
Add System Recording	Select a system recording
Link to Feature Code	Yes No
Feature Code Password	

Submit Reset

اعداد الرد الآلي

- انقر على Apply Config لتطبيق الاعدادات الجديدة



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=recordings

Admin Applications Connectivity Dashboard Reports Settings UCP Apply Config

+ Add Recording Search

Display Name	Description	Supported Languages	Actions
After Hours		English	 
IVR Greeting		English	 

Showing 1 to 2 of 2 rows

اعداد الرد الآلي

• اذهب الى Applications > Announcements

The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.111/admin/config.php?display=recordings". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". The "Applications" menu is expanded, showing a list of options including "Announcements", "Appointment Reminder", "Broadcast", "Calendar", "Calendar Event Groups", "Call Flow Control", "Call Recording", "Callback", "CallerID Management", "Conferences", "Conferences Pro", "DISA", "Directory", "Dynamic Routes", "Follow Me", "IVR", "Languages", "Misc Applications", "Misc Destinations", and "Missed Call Notification". The "Announcements" option is selected, and the main content area displays a table with the following data:

Description	Supported Languages	Actions
	English	
	English	

The footer of the interface includes the FreePBX logo, the text "FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright © 2007-2024", and the Sangoma logo.

اعداد الرد الآلي

• انقر على + لاضافة اعلان صوتي

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=announcement

Admin Applications Connectivity Dashboard Reports Settings UCP

Announcement

+ Add Search

Description	Destination	Actions
No matching records found		

اعداد الرد الآلي

- اصف تسمية توضيحية للاعلان واختر التسجيل ووجهة المكالمة بعد تشغيل الاعلان

FreePBX Administration

192.168.0.111/admin/config.php?display=announcement&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

Announcement: Edit

Description	Closed
Recording	After Hours
Repeat	Disable
Allow Skip	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Return to IVR	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Don't Answer Channel	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Destination after Playback	Terminate Call
	Hangup

» Submit Reset

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اعداد الرد الآلي

- انقر على Apply Config لتطبيق الاعدادات الجديدة

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=announcement

Admin Applications Connectivity Dashboard Reports Settings UCP Apply Config

Announcement

+ Add Search

Description	Destination	Actions
Closed IVR	Terminate Call: Hangup	

Showing 1 to 1 of 1 rows

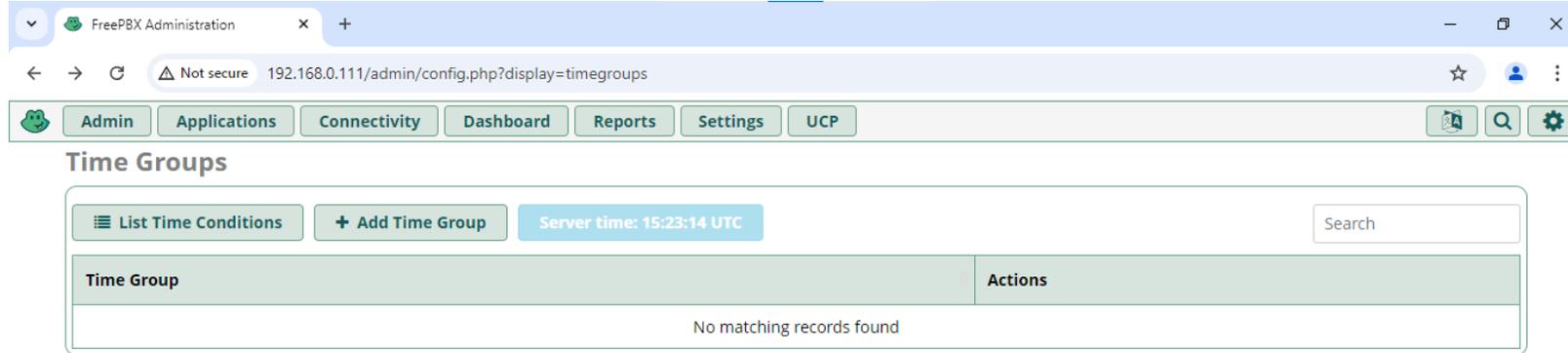
اعداد شروط الوقت على FreePBX

• اذهب الى Applications > Time Groups

The screenshot displays the FreePBX Administration web interface. The browser address bar shows '192.168.0.111/admin/config.php#'. The navigation menu includes 'Admin', 'Applications', 'Connectivity', 'Dashboard', 'Reports', 'Settings', and 'UCP'. The 'Applications' menu is expanded, showing various options, with 'Time Groups' selected. The main content area shows the 'Time Groups' configuration page, which includes a 'Warnings Found' section and a 'Usage' section. The 'Usage' section displays a table with columns for 'Category' and 'Usage'. The 'Category' column lists 'Asterisk', 'Uptime', 'CPU', 'Memory', 'Disk', and 'Network'. The 'Usage' column shows the usage for each category, with 'Asterisk' having a usage of 100% and 'Uptime' having a usage of 100%. The interface also features a search bar and a 'FreePBX - Let Freedom Ring Feed' section with a list of news items.

اعداد شروط الوقت على FreePBX

• انقر على + لاضافة Time Group



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=timegroups

Admin Applications Connectivity Dashboard Reports Settings UCP

Time Groups

List Time Conditions + Add Time Group Server time: 15:23:14 UTC Search

Time Group	Actions
No matching records found	

اعداد شروط الوقت على FreePBX

- اصف تسمية توضيحية للمجموعة وحدد بداية ونهاية الوقت وبداية ونهاية الاسبوع

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=timegroups&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

Time Groups

Description Office Hours

Time(s)

Time to Start	08	00
Time to finish	16	00
Week Day Start	Sunday	
Week Day finish	Thursday	
Month Day start	-	
Month Day finish	-	
Month start	-	
Month finish	-	

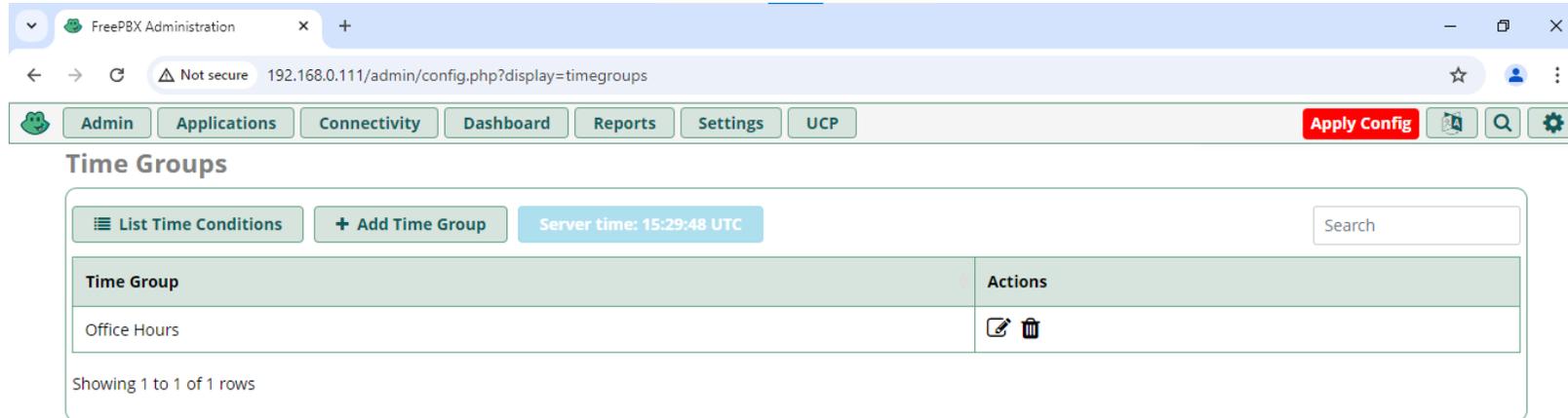
+ Add Time

Submit Duplicate Reset

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اعداد شروط الوقت على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.111/admin/config.php?display=timegroups". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible in the top right. The main content area is titled "Time Groups" and contains a table with one row for "Office Hours".

Time Groups

List Time Conditions + Add Time Group Server time: 15:29:48 UTC Search

Time Group	Actions
Office Hours	 

Showing 1 to 1 of 1 rows

اعداد شروط الوقت على FreePBX

• اذهب الى Applications > Time Conditions

The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.111/admin/config.php?display=timegroups`. The navigation menu includes **Admin**, **Applications**, **Connectivity**, **Dashboard**, **Reports**, **Settings**, and **UCP**. The **Applications** menu is expanded, showing a list of sub-menus including **Time Conditions**, which is currently selected. The main content area displays the **Time Groups** configuration page, featuring a search bar and a table with columns for **Time Group** and **Actions**. The server time is shown as **15:33:42 UTC**. The footer contains the FreePBX logo, the Sangoma logo, and copyright information: "FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright © 2007-2024".

اعداد شروط الوقت على FreePBX

• انقر على + لاضافة Time Condition

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=timeconditions

Admin Applications Connectivity Dashboard Reports Settings UCP

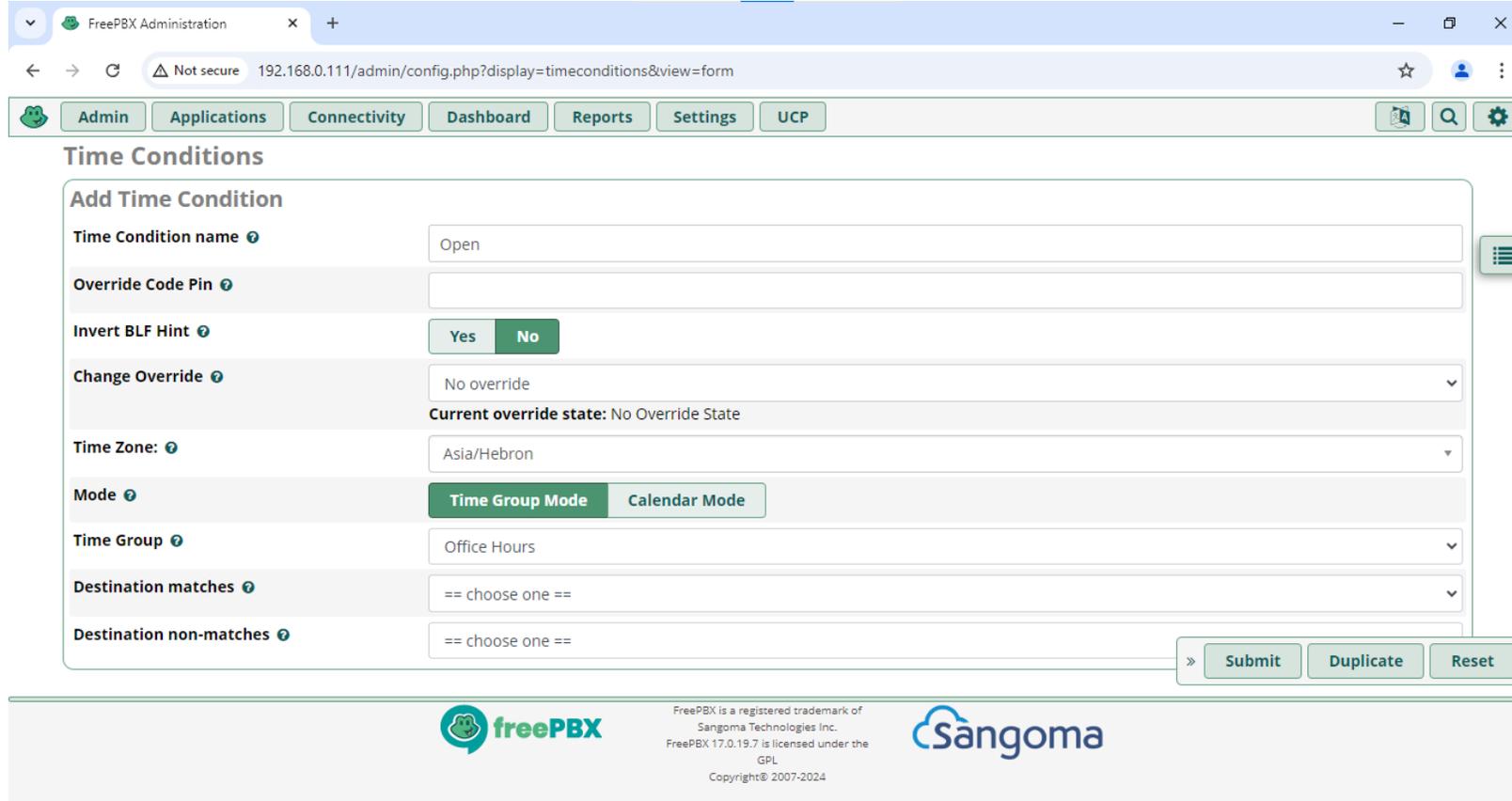
Time Conditions

List Time Groups + Add Time Condition Server time: 15:34:14 UTC Search

Time Condition	Override State	Linked Item	Actions
No matching records found			

اعداد شروط الوقت على FreePBX

- اصف تسمية توضيحية للشروط واختر مجموعة الوقت والمنطقة الزمنية (Time Zone)



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=timeconditions&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

Time Conditions

Add Time Condition

Time Condition name

Override Code Pin

Invert BLF Hint

Change Override

Current override state: No Override State

Time Zone:

Mode

Time Group

Destination matches

Destination non-matches

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اعداد شروط الوقت على FreePBX

- اختر وجهة المكالمة عند تطابق الوقت (Destination matches) واذا لم يتطابق الوقت

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=timeconditions&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

Time Conditions

Add Time Condition

Time Condition name

Override Code Pin

Invert BLF Hint Yes No

Change Override

Current override state: No Override State

Time Zone:

Mode Time Group Mode Calendar Mode

Time Group

Destination matches

Destination non-matches

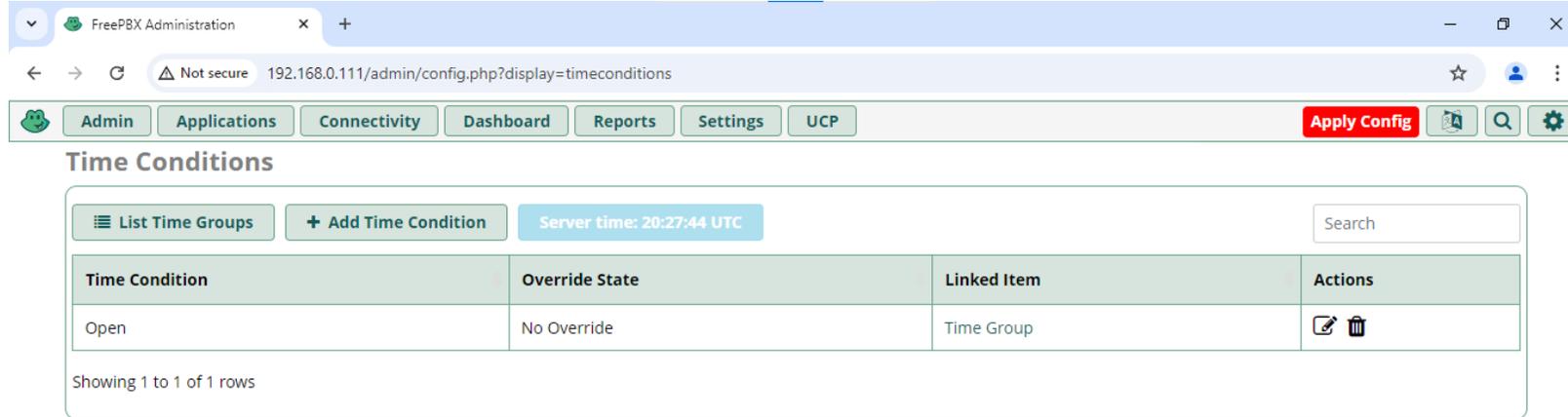
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freePBX

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اعداد شروط الوقت على FreePBX

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.111/admin/config.php?display=timeconditions". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible in the top right. The main content area is titled "Time Conditions" and contains a table with one row. The table has columns for "Time Condition", "Override State", "Linked Item", and "Actions". The row shows "Open" as the Time Condition, "No Override" as the Override State, "Time Group" as the Linked Item, and edit/delete icons as Actions. Below the table, it says "Showing 1 to 1 of 1 rows".

Time Condition	Override State	Linked Item	Actions
Open	No Override	Time Group	 

Showing 1 to 1 of 1 rows

اعداد الرد الآلي

- عدّل وجهة المكالمة الواردة الى شرط الوقت بدلا من قائمة IVR

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=did&view=form&extdisplay=%2F

Admin Applications Connectivity Dashboard Reports Settings UCP

Route: To-IVR

General Advanced Privacy Fax Other

Description To-IVR

DID Number ANY

CallerID Number ANY

CID Priority Route Yes No

Alert Info None

Ringer Volume Override None

CID name prefix

Music On Hold Default

Set Destination Time Conditions

Open

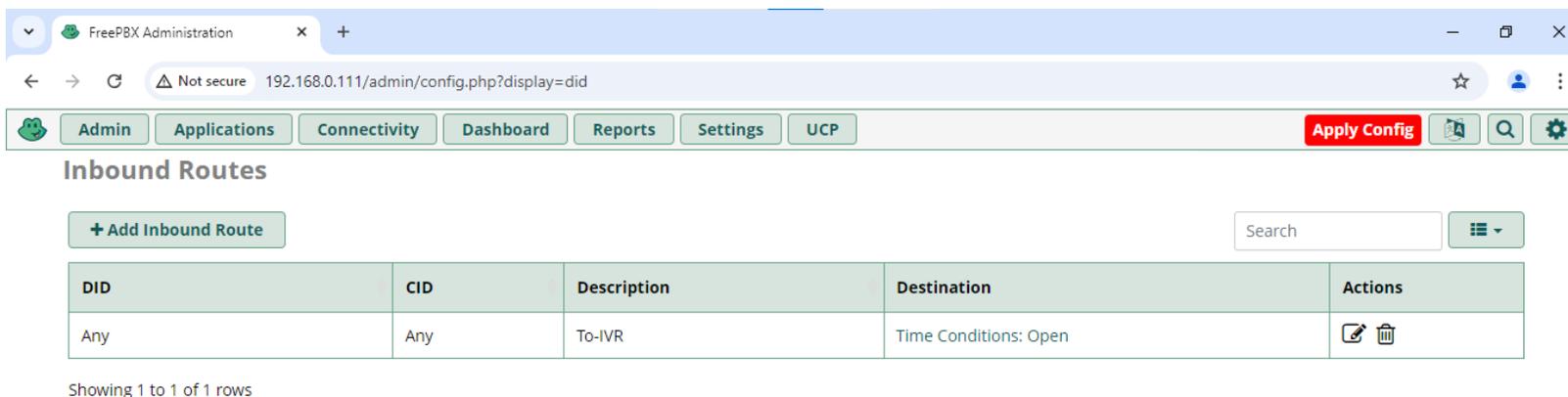
Submit Reset Delete

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اعداد الرد الآلي

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.111/admin/config.php?display=did". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible. The main content area is titled "Inbound Routes" and features a "+ Add Inbound Route" button, a search bar, and a table with one row of configuration data.

DID	CID	Description	Destination	Actions
Any	Any	To-IVR	Time Conditions: Open	 

Showing 1 to 1 of 1 rows

اختبار الاتصال

- تحقق من التسجيل الصوتي وشرط الوقت عبر الاتصال من المقسم الثاني على المقسم الاول



تمرين: اعداد مقسم هاتفي فرعي مع شروط الوقت

- انت مسؤول عن مقسم هاتفي فرعي (PBX) في شركة تتكون من قسم المبيعات وقسم الدعم الفني وموظف الاستعلامات، ولديك مهمة اعداد الرد الآلي (IVR) ليعمل بشكل مختلف في اوقات العمل وخارج اوقات العمل
- المطلوب:
- اعداد الارقام الداخلية: 201 لقسم المبيعات، 202 لقسم الدعم الفني، 200 لموظف الاستعلامات
- اعداد التسجيل الصوتي لتقديم خيارات الاقسام: 1 المبيعات، 2 الدعم الفني، 0 الاستعلامات
- اعداد قائمة الرد الآلي لتوجيه المتصلين الى الارقام الداخلية وفق خيارات التسجيل الصوتي
- اعداد قواعد الاتصال لتوجيه المكالمات الواردة بناء على الوقت، في اوقات العمل يتم توجيهها الى قائمة الرد الآلي وخارج اوقات العمل يتم توجيهها الى رسالة صوتية تفيد بان الشركة مغلقة حاليا
- اختبر الاتصال على المقسم الهاتفي للتحقق من التسجيل الصوتي وشروط الوقت

رقم المتصل

- يمكن اعداد رقم المتصل (Caller ID) في المقسم الهاتفي (PBX) وفق الهيكلية التالية:
 - الخط الداخلي (Extension): يتيح تحديد رقم المتصل على مستوى الرقم الفرعي ويبلغ رقم المتصل في المكالمات الصادرة والخطوط الرئيسية
 - المكالمات الصادرة (Outbound Route): يتيح تحديد رقم المتصل على مستوى المكالمات الصادرة عبر اي خط رئيسي ويبلغ رقم المتصل في الخط الرئيسي
 - الخط الرئيسي (Trunk): يتيح تحديد رقم المتصل في المكالمات الصادرة من خلال الخط الرئيسي وهي ابسط طريقة في اعداد رقم المتصل مع الاطراف الخارجية
- عند تحديد رقم المتصل (CID) مع رقم الاتصال الداخلي المباشر (DID) في المكالمات الواردة يتم توجيه المكالمات الى DID اولاً ثم CID، ويمكن منح الاولوية (Priority) في توجيه المكالمات الى CID قبل DID في اعدادات المكالمات الواردة

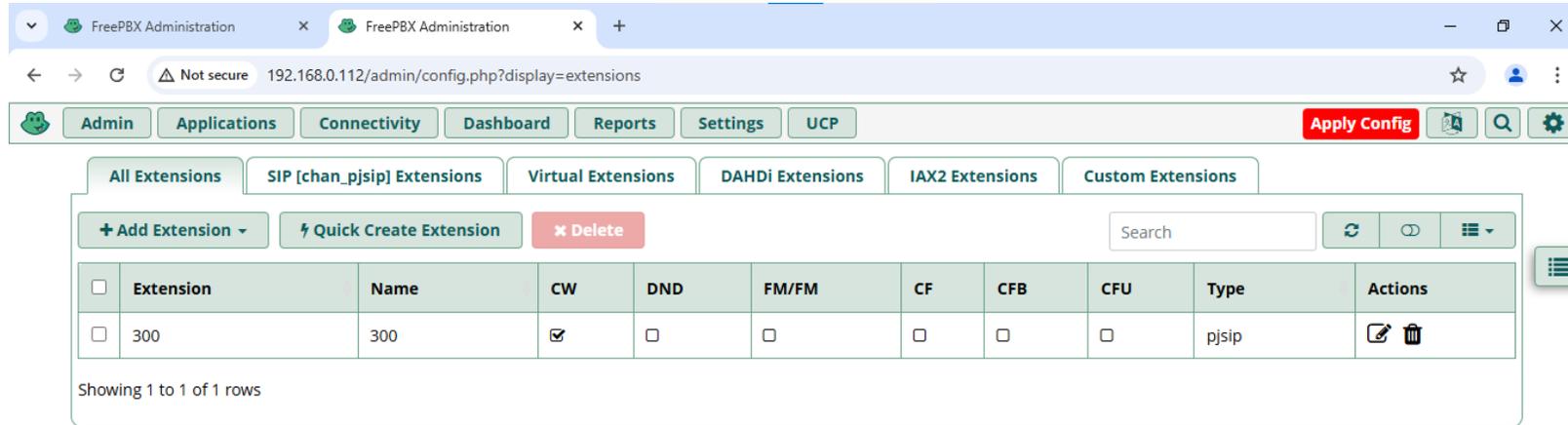
اعداد الخطوط الفرعية

- عدّل الخط الفرعي لإضافة رقم المتصل الخارجي (Outbound CID) في المقسم الثاني

The screenshot shows the FreePBX Administration interface for editing extension 300. The browser address bar shows the URL: 192.168.0.112/admin/config.php?display=extensions&extdisplay=300. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'Extension: 300' and has tabs for General, Voicemail, Find Me/Follow Me, Advanced, Pin Sets, and Other. The 'General' tab is active, and the 'Edit Extension' section is expanded. A message states: 'This device uses PJSIP technology listening on Port 5060 (UDP)'. The 'Outbound CID' field is highlighted with a red box and contains the value '2233440'. Other fields include 'Display Name' (300), 'Emergency CID' (empty), and 'Secret' (masked). The 'Language' section shows 'Language Code' set to 'Default'. The 'User Manager Settings' section shows 'Linked to User 300', 'Select User Directory' set to 'PBX Internal Directory', and 'Link to a Different Default User' set to '300 (Linked)'. At the bottom right, there are buttons for 'Submit', 'Reset', and 'Delete'.

اعداد الخطوط الفرعية

- انقر على Apply Config لتطبيق الاعدادات الجديدة



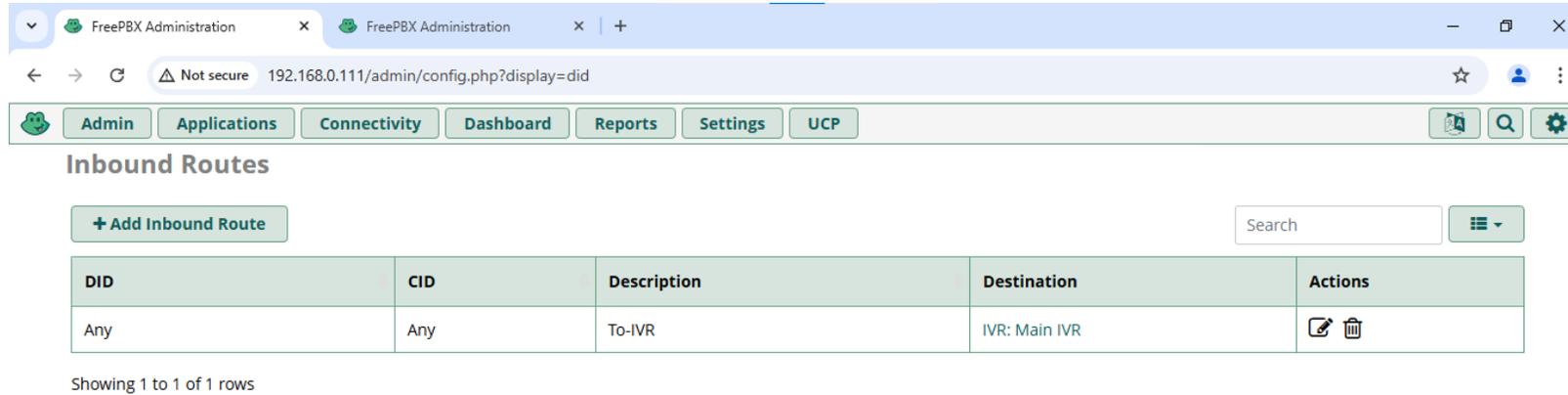
The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.112/admin/config.php?display=extensions. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible in the top right corner. Below the navigation menu, there are tabs for 'All Extensions', 'SIP [chan_pjsip] Extensions', 'Virtual Extensions', 'DAHDI Extensions', 'IAX2 Extensions', and 'Custom Extensions'. The 'SIP [chan_pjsip] Extensions' tab is selected. The main content area shows a table with one extension (300) and an 'Apply Config' button.

Extension	Name	CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
<input type="checkbox"/>	300	300	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pjsip	 

Showing 1 to 1 of 1 rows

اعداد المكالمات الواردة

- انقر على + لاضافة Inbound Route في المقسم الهاتفي الاول



Inbound Routes

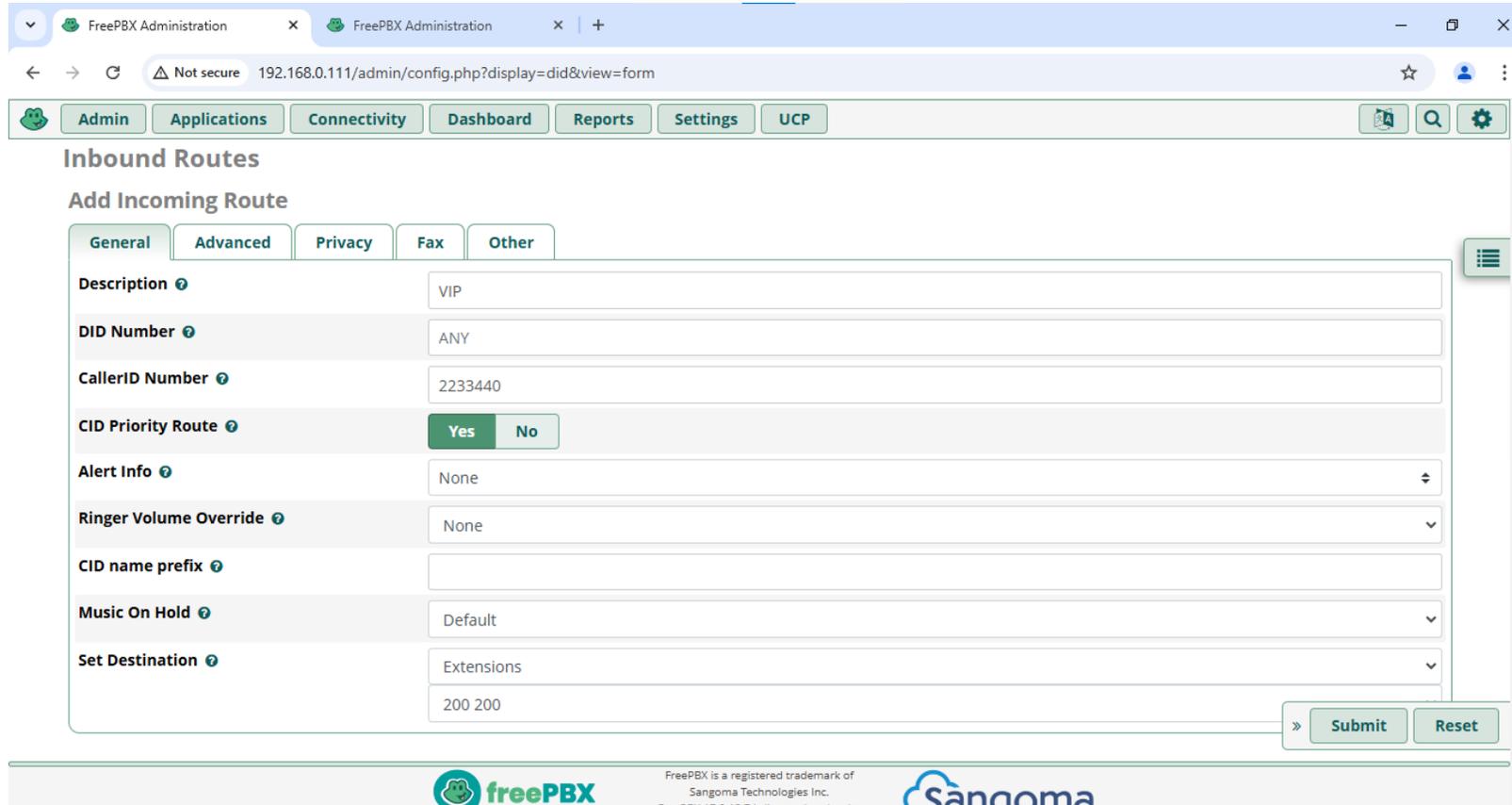
[+ Add Inbound Route](#)

DID	CID	Description	Destination	Actions
Any	Any	To-IVR	IVR: Main IVR	Edit Delete

Showing 1 to 1 of 1 rows

اعداد المكالمات الواردة

- اصف تسمية توضيحية للمكالمة الواردة وادخل رقم المتصل واختر الرقم الفرعي



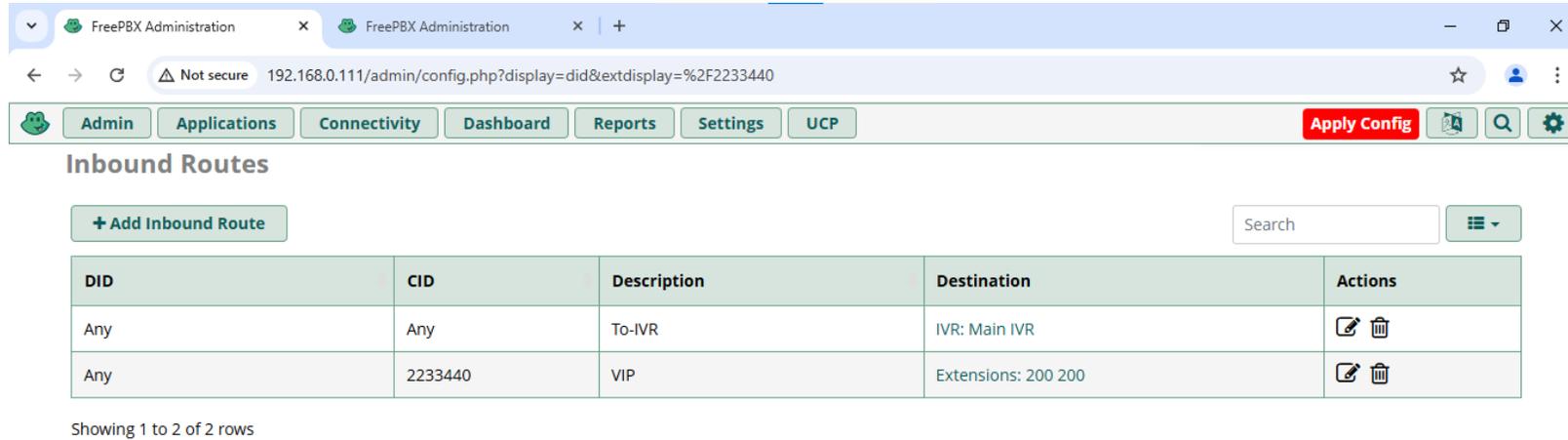
The screenshot displays the 'Add Incoming Route' form in the FreePBX Administration interface. The form is organized into several sections: 'General', 'Advanced', 'Privacy', 'Fax', and 'Other'. The 'General' section is currently active and contains the following fields:

- Description:** VIP
- DID Number:** ANY
- CallerID Number:** 2233440
- CID Priority Route:** Yes (selected), No
- Alert Info:** None
- Ringer Volume Override:** None
- CID name prefix:** (empty)
- Music On Hold:** Default
- Set Destination:** Extensions (selected), 200 200

At the bottom right of the form, there are 'Submit' and 'Reset' buttons. The interface also shows a navigation menu at the top with options like 'Admin', 'Applications', 'Connectivity', 'Dashboard', 'Reports', 'Settings', and 'UCP'. The footer includes the FreePBX logo and the Sangoma Technologies Inc. logo.

اعداد المكالمات الواردة

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays the URL: 192.168.0.111/admin/config.php?display=did&extdisplay=%2F2233440. The navigation menu includes: Admin, Applications, Connectivity, Dashboard, Reports, Settings, UCP, and a red Apply Config button. The main content area is titled "Inbound Routes" and features a "+ Add Inbound Route" button, a search bar, and a table of routes.

DID	CID	Description	Destination	Actions
Any	Any	To-IVR	IVR: Main IVR	 
Any	2233440	VIP	Extensions: 200 200	 

Showing 1 to 2 of 2 rows

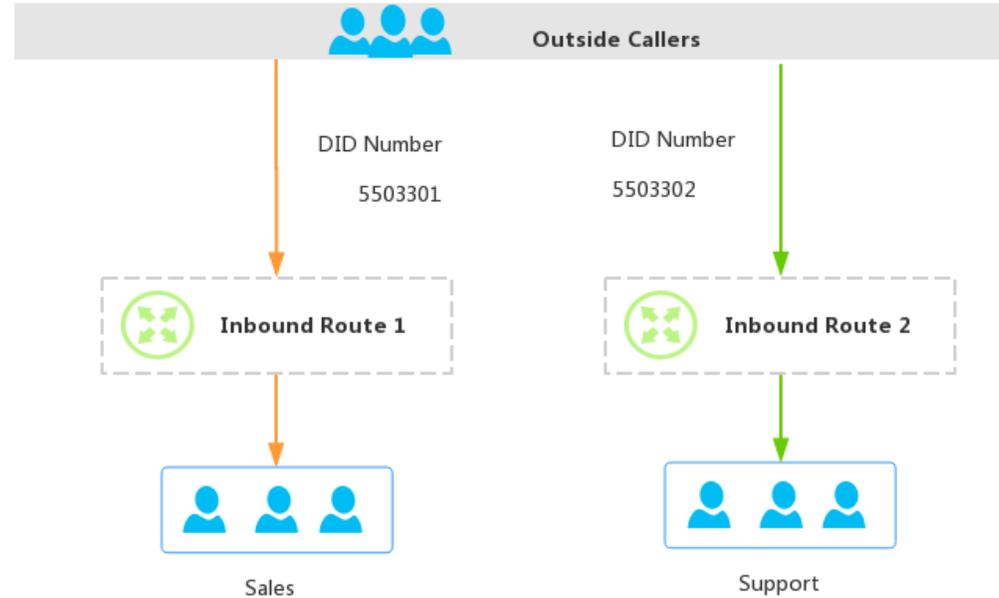
اختبار الاتصال

- تحقق من رقم المتصل الخارجي عبر الاتصال من المقسم الثاني على المقسم الاول



الاتصال الداخلي المباشر

- يتيح الاتصال الداخلي المباشر (DID) للمتصلين الخارجيين بالوصول الى خط فرعي معين دون المرور على قائمة IVR في المقسم الهاتفي او الحديث مع الاستعلامات



الاتصال الخارجي المباشر

- يتيح الاتصال الخارجي المباشر (DOD) للمستخدمين باجراء مكالمات خارجية مباشرة دون الحاجة الى مساعدة الاستعلامات
- تستخدم هذه الميزة للاتصال بارقام خارجية من الخطوط الفرعية في المقسم الهاتفي
- يتم تنفيذ الاتصال الخارجي المباشر عادة باضافة مقدمة الى رقم الهاتف (مثل 0 او 9) للتفريق بين المكالمات الداخلية والخارجية وتجنب التداخل بين الارقام الداخلية والخارجية

اعداد الخطوط الرئيسية

- اصف رقم المتصل (Outbound Caller ID) الى الخط الرئيسي في المقسم الثاني

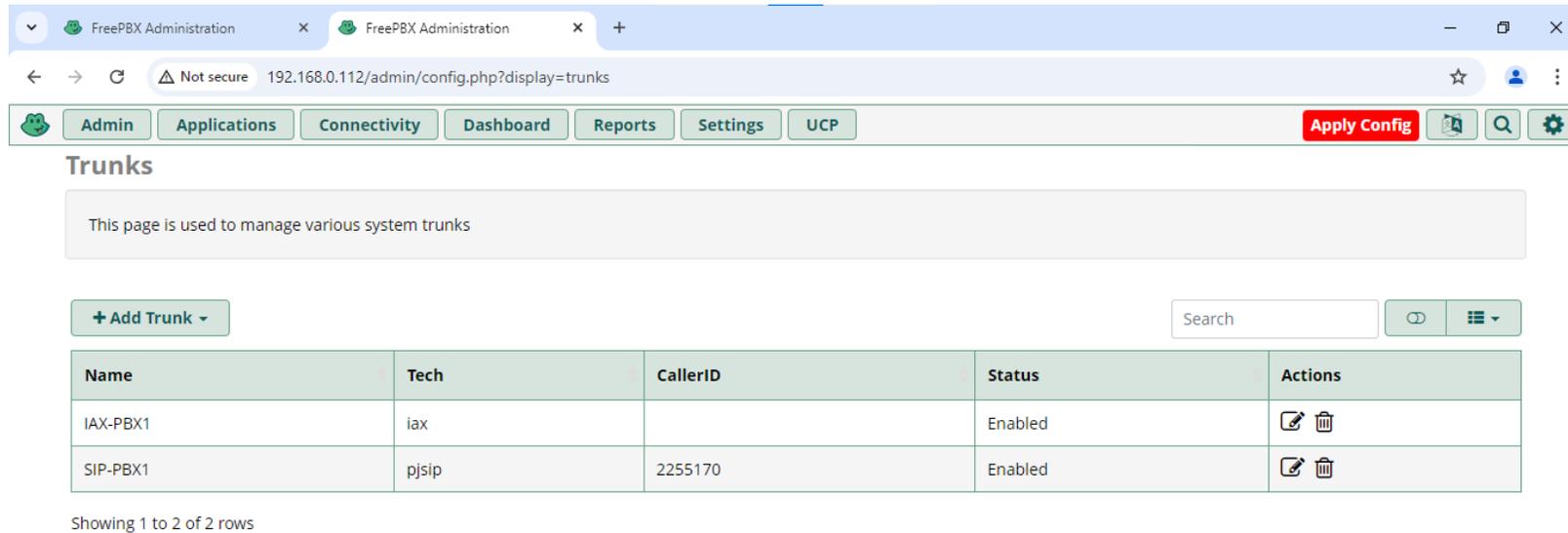
The screenshot shows the 'Edit PJSIP Trunk' configuration page in the FreePBX Administration interface. The page is titled 'Edit PJSIP Trunk' and is currently in use by 1 route. The configuration is divided into three tabs: 'General', 'Dialed Number Manipulation Rules', and 'pjsip Settings'. The 'General' tab is active, showing the following fields and options:

- Trunk Name:** SIP-PBX1
- Hide CallerID:** Yes (selected), No
- Outbound CallerID:** 2255170
- CID Options:** Allow Any CID (selected), Block Foreign CIDs, Remove CNAM, Force Trunk CID
- Maximum Channels:** (empty field)
- Asterisk Trunk Dial Options:** T (selected), Override, System
- Continue if Busy:** Yes, No (selected)
- Disable Trunk:** Yes, No (selected)
- Monitor Trunk Failures:** Yes, No (selected)

At the bottom right of the form, there are four buttons: Submit, Duplicate, Reset, and Delete.

اعداد الخطوط الرئيسية

- انقر على Apply Config لتطبيق الاعدادات الجديدة



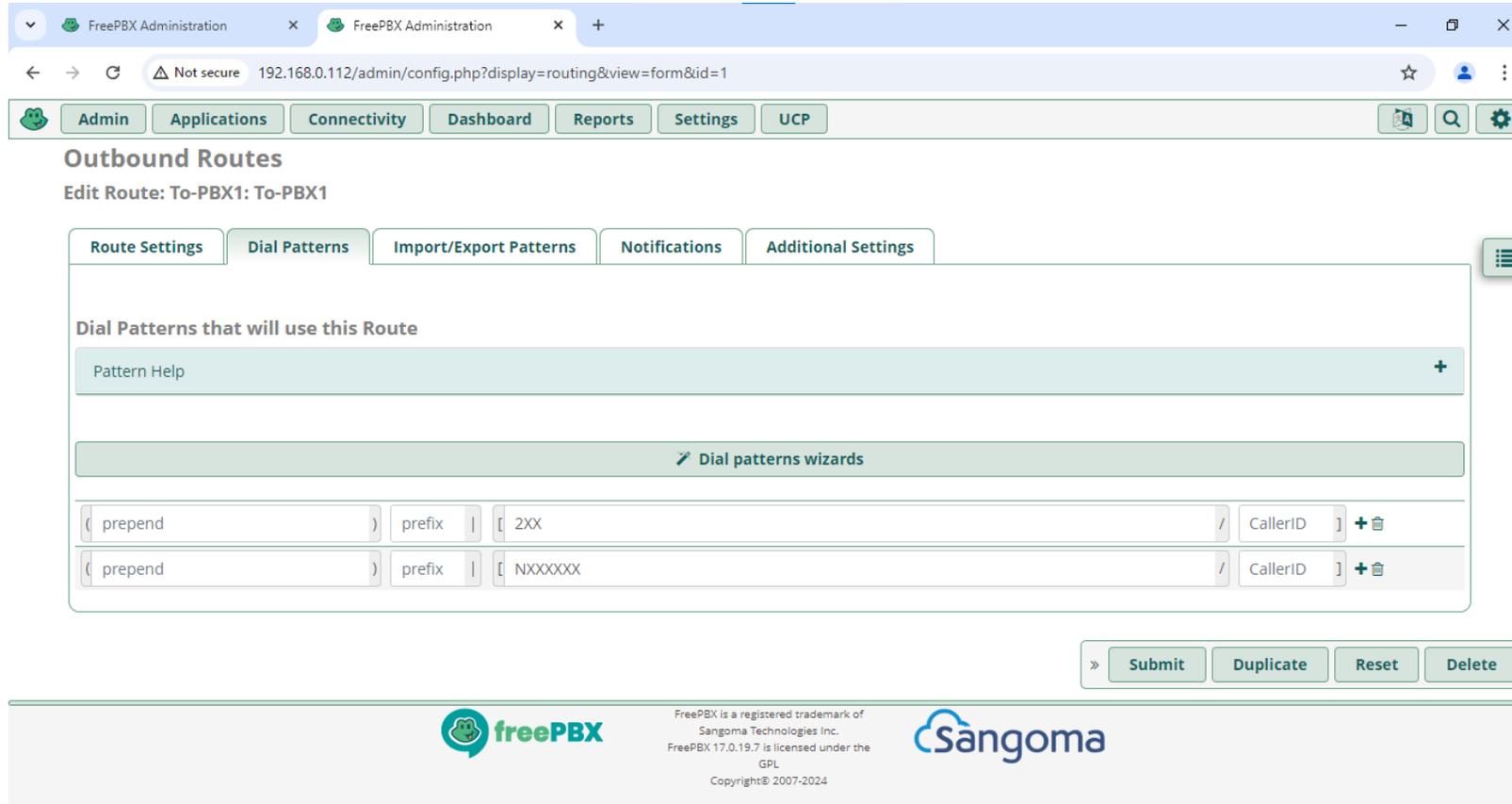
The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.112/admin/config.php?display=trunks. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible in the top right corner. The main content area is titled 'Trunks' and contains a message: 'This page is used to manage various system trunks'. Below this is a '+ Add Trunk' button and a search field. A table lists the trunks:

Name	Tech	CallerID	Status	Actions
IAX-PBX1	iax		Enabled	 
SIP-PBX1	pjsip	2255170	Enabled	 

Showing 1 to 2 of 2 rows

اعداد المكالمات الصادرة

- اصف نمط الطلب لاجراء مكالمة خارجية في المقسم الهاتفي الثاني



FreePBX Administration

FreePBX Administration

Not secure 192.168.0.112/admin/config.php?display=routing&view=form&id=1

Admin Applications Connectivity Dashboard Reports Settings UCP

Outbound Routes

Edit Route: To-PBX1: To-PBX1

Route Settings Dial Patterns Import/Export Patterns Notifications Additional Settings

Dial Patterns that will use this Route

Pattern Help +

Dial patterns wizards

(prepend)	prefix	[2XX]	/	CallerID]	+ -
(prepend)	prefix	[NXXXXXX]	/	CallerID]	+ -

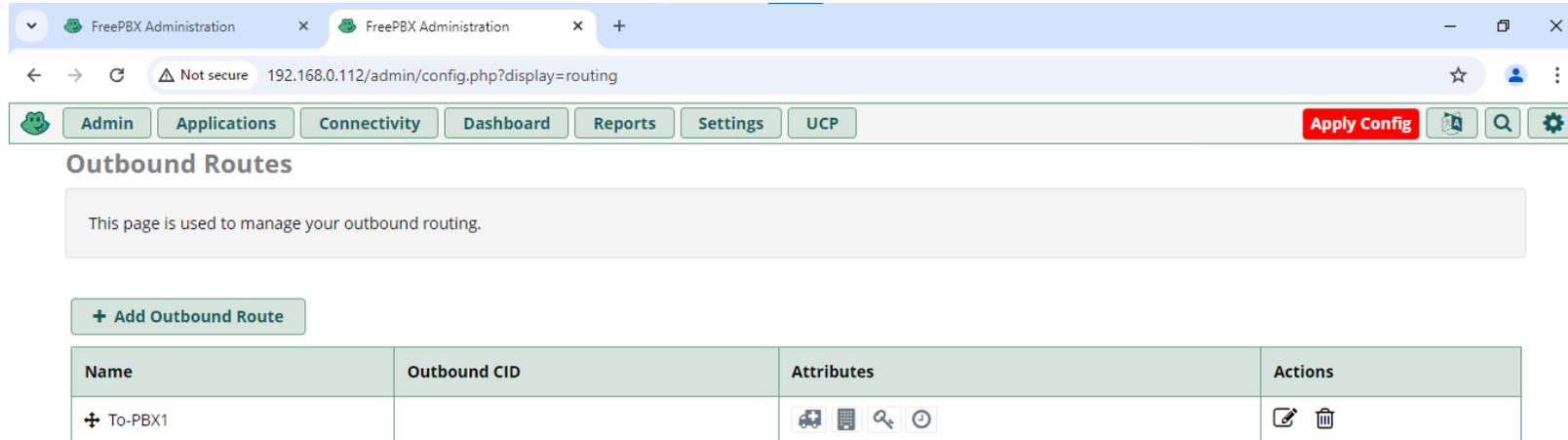
» Submit Duplicate Reset Delete

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اعداد المكالمات الصادرة

- انقر على Apply Config لتطبيق الاعدادات الجديدة

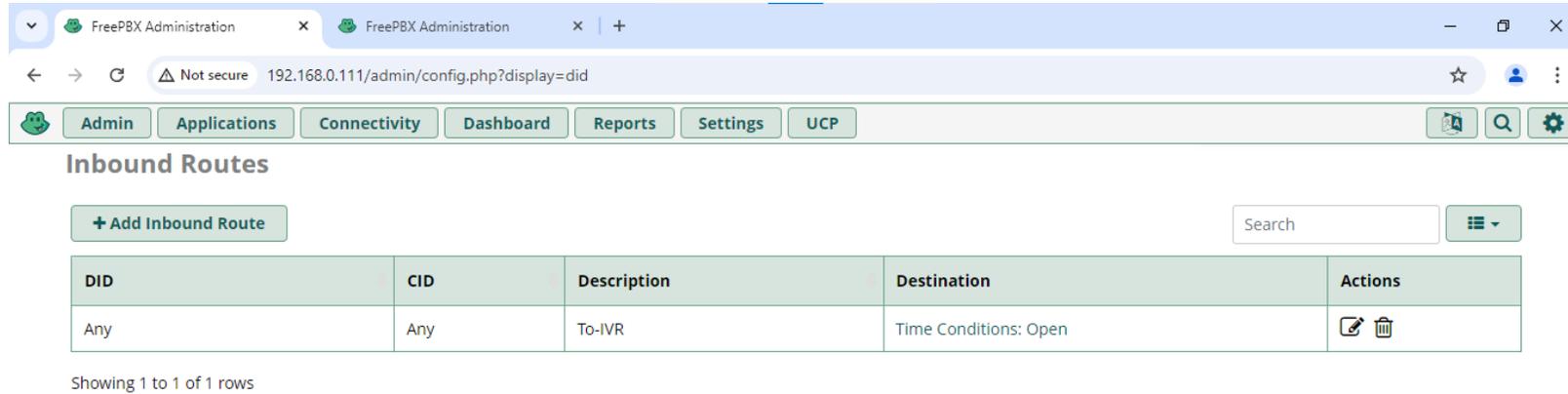


The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.112/admin/config.php?display=routing". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible in the top right. The main content area is titled "Outbound Routes" and contains a message: "This page is used to manage your outbound routing." Below this is a "+ Add Outbound Route" button and a table with the following data:

Name	Outbound CID	Attributes	Actions
+ To-PBX1			

اعداد المكالمات الواردة

- انقر على + لاضافة Inbound Route في المقسم الهاتفي الاول



Inbound Routes

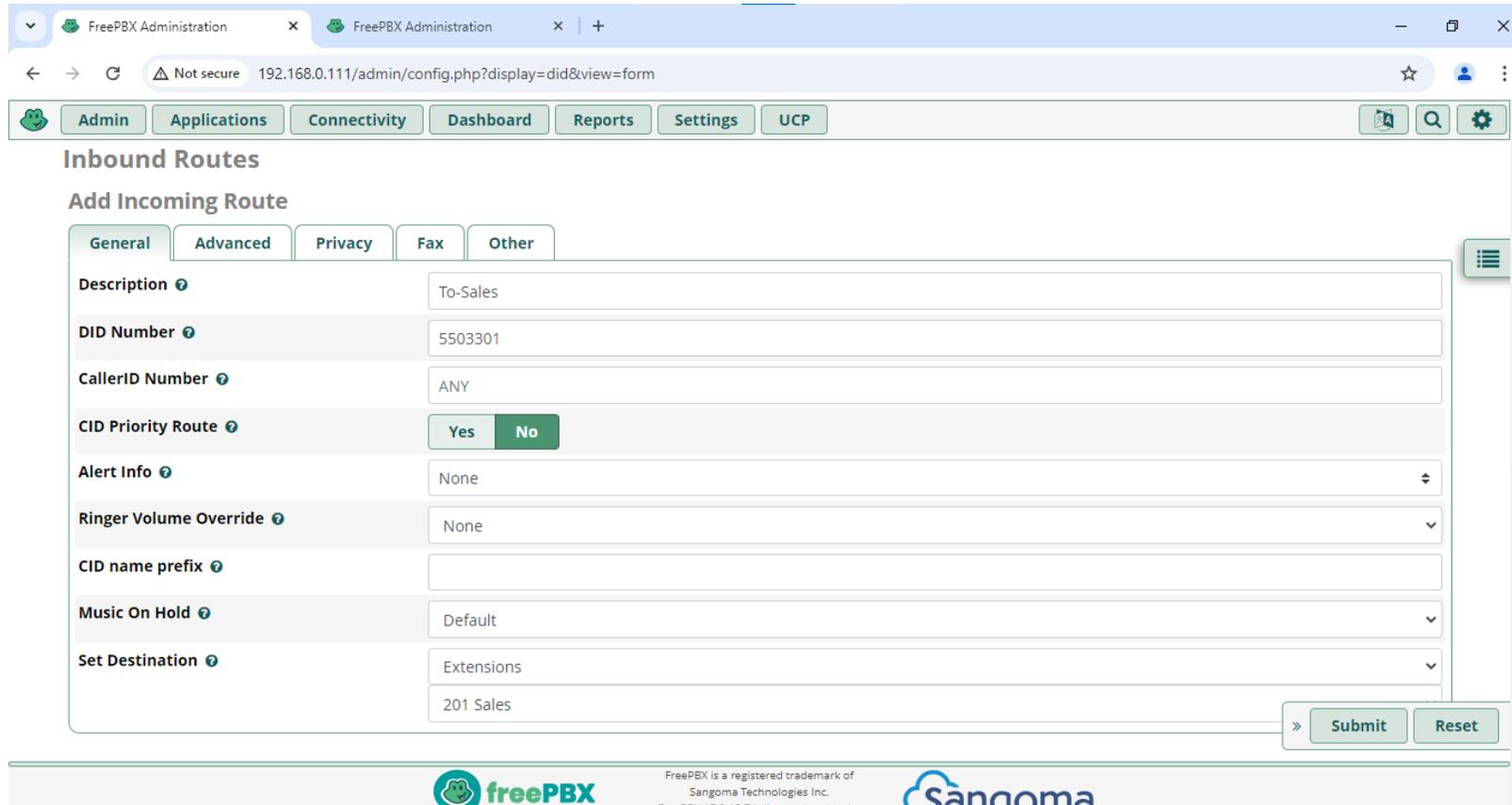
[+ Add Inbound Route](#)

DID	CID	Description	Destination	Actions
Any	Any	To-IVR	Time Conditions: Open	✎ 🗑

Showing 1 to 1 of 1 rows

اعداد المكالمات الواردة

- اصف تسمية توضيحية للمكالمة الواردة وادخل رقم الاتصال المباشر واختر الرقم الفرعي



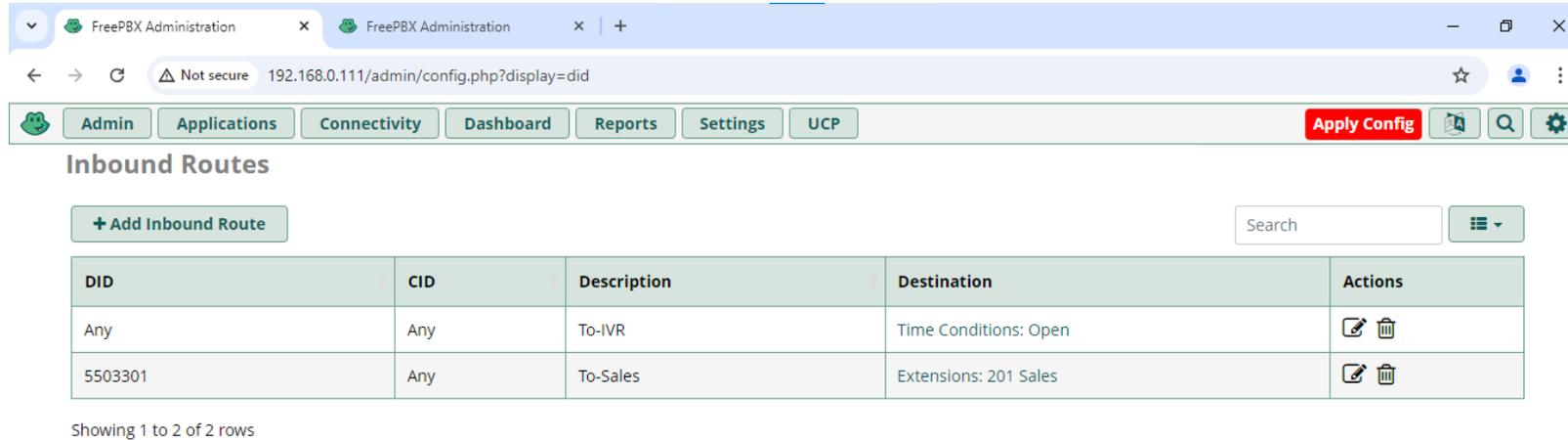
The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL: 192.168.0.111/admin/config.php?display=did&view=form. The navigation menu includes: Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'Inbound Routes' and 'Add Incoming Route'. The 'General' tab is selected, showing the following fields:

Description	To-Sales
DID Number	5503301
CallerID Number	ANY
CID Priority Route	<input type="radio"/> Yes <input checked="" type="radio"/> No
Alert Info	None
Ringer Volume Override	None
CID name prefix	
Music On Hold	Default
Set Destination	Extensions 201 Sales

At the bottom right of the form are 'Submit' and 'Reset' buttons. The footer of the page includes the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the', and the Sangoma logo.

اعداد المكالمات الواردة

- انقر على + لاضافة Inbound Route في المقسم الهاتفي الاول



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.111/admin/config.php?display=did. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible. The main content area is titled 'Inbound Routes' and features a '+ Add Inbound Route' button and a search bar. Below this is a table with the following data:

DID	CID	Description	Destination	Actions
Any	Any	To-IVR	Time Conditions: Open	 
5503301	Any	To-Sales	Extensions: 201 Sales	 

Showing 1 to 2 of 2 rows

اعداد المكالمات الواردة

- اصف تسمية توضيحية للمكالمة الواردة وادخل رقم الاتصال المباشر واختر الرقم الفرعي

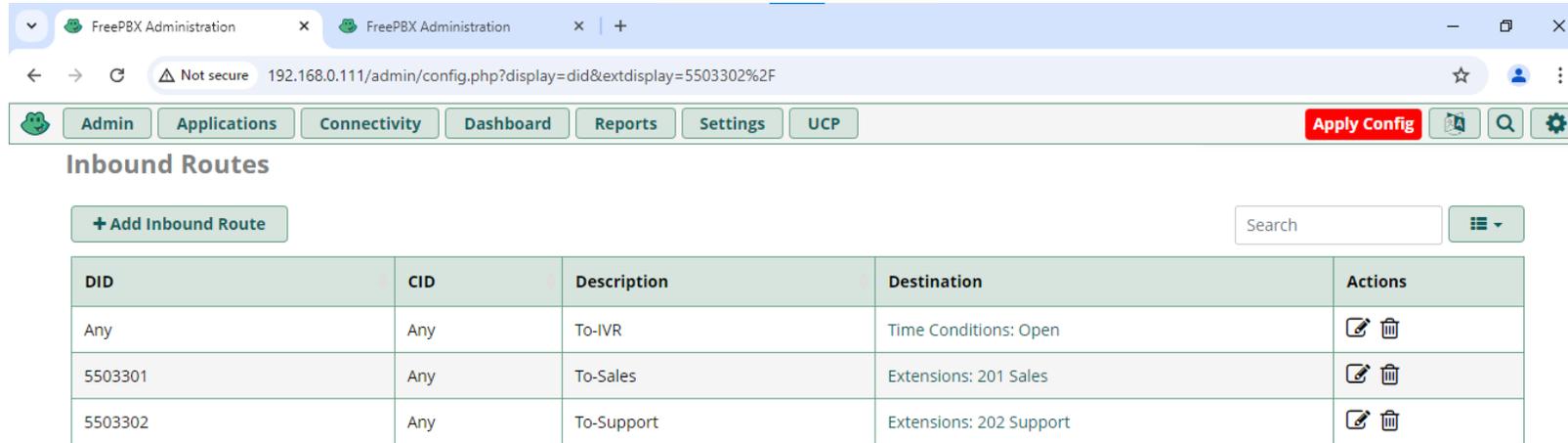
The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL: 192.168.0.111/admin/config.php?display=did&view=form. The navigation menu includes: Admin, Applications, Connectivity, Dashboard, Reports, Settings, UCP, and an Apply Config button. The main content area is titled 'Inbound Routes' and 'Add Incoming Route'. The 'General' tab is selected, showing the following fields:

Description	To-Support
DID Number	5503302
CallerID Number	ANY
CID Priority Route	<input type="radio"/> Yes <input checked="" type="radio"/> No
Alert Info	None
Ringer Volume Override	None
CID name prefix	
Music On Hold	Default
Set Destination	Extensions 202 Support

At the bottom right of the form are 'Submit' and 'Reset' buttons. The footer of the page includes the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the', and the Sangoma logo.

اعداد المكالمات الواردة

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays the URL: 192.168.0.111/admin/config.php?display=did&extdisplay=5503302%2F. The navigation menu includes: Admin, Applications, Connectivity, Dashboard, Reports, Settings, UCP, and a red Apply Config button. The main content area is titled "Inbound Routes" and features a "+ Add Inbound Route" button and a search bar. Below is a table with the following data:

DID	CID	Description	Destination	Actions
Any	Any	To-IVR	Time Conditions: Open	 
5503301	Any	To-Sales	Extensions: 201 Sales	 
5503302	Any	To-Support	Extensions: 202 Support	 

Showing 1 to 3 of 3 rows



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اختبار الاتصال

- تحقق من الاتصال الداخلي المباشر عبر الاتصال من المقسم الثاني على المقسم الاول



اعداد الخطوط الفرعية دفعة واحدة

- لإنشاء عدد كبير من الخطوط الفرعية في المقسم الهاتفي (PBX)، يمكن إضافة مجموعة من الخطوط الفرعية دفعة واحدة (Bulk) بدلا من اعداد كل خط فرعي على حده
- يفضل إضافة خط فرعي واحد مع الاعدادات المطلوبة ثم تصديرها الى ملف بصيغة CSV وفتح الملف من خلال برنامج جداول البيانات مثل Excel لتعبئة الملف بالبيانات الجديدة
- بعد تعبئة الملف واغلاقه، يتم استيراد البيانات من الملف لإنشاء الخطوط واحدا تلو الآخر

اعداد الخطوط الفرعية دفعة واحدة

• اذهب الى Admin > Bulk Handler



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.110/admin/config.php?display=extensions. The main navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The left sidebar menu is open, highlighting 'Bulk Handler'. The main content area shows a table of extensions with the following data:

Name	CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
User 200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip	 				

The footer of the page includes the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright © 2007-2024', and the Sangoma logo.

اعداد الخطوط الفرعية دفعة واحدة

- انقر على Export لتصدير البيانات على شكل قالب

FreePBX Administration

Not secure 192.168.0.110/admin/config.php?display=bulkhandler

Admin Applications Connectivity Dashboard Reports Settings UCP

extensions.csv
2,962 B • Done

Bulk Handler

Export Import

Extensions DIDs Trunks User Manager Users User Manager Groups UCP Templates Allowlist Blacklist Conferences Contacts

Endpoint Emergency CIDs missedcall Queue Priorities TimeGroups

What are "extensions"? +

CSV File Export

اعداد الخطوط الفرعية دفعة واحدة

- افتح الملف لاضافة الخطوط الفرعية

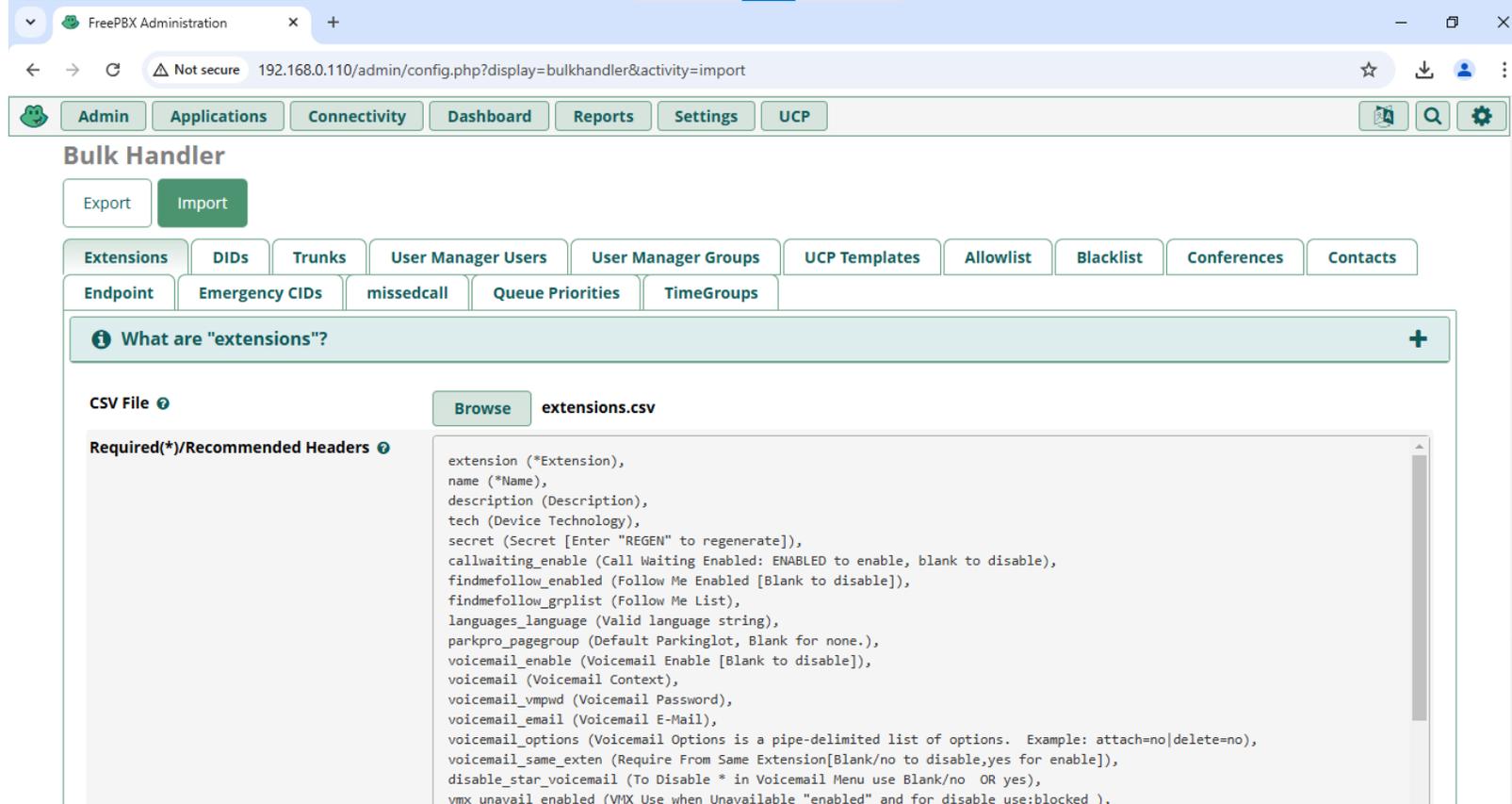
The screenshot displays the Microsoft Excel interface with a table containing the following data:

extension	name	secret
201	User 201	201
202	User 202	202
203	User 203	203
204	User 204	204
205	User 205	205
206	User 206	206
207	User 207	207
208	User 208	208
209	User 209	209

The status bar at the bottom of the window indicates: Average: 205, Count: 30, Sum: 3690.

اعداد الخطوط الفرعية دفعة واحدة

- انقر على Import لاستيراد البيانات من الملف ثم انقر على Submit



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: 192.168.0.110/admin/config.php?display=bulkhandler&activity=import. The page title is "Bulk Handler". There are two buttons: "Export" and "Import". Below these are several tabs: "Extensions", "DIDs", "Trunks", "User Manager Users", "User Manager Groups", "UCP Templates", "Allowlist", "Blacklist", "Conferences", and "Contacts". Under "Extensions", there are sub-tabs: "Endpoint", "Emergency CIDs", "missedcall", "Queue Priorities", and "TimeGroups". A section titled "What are 'extensions'?" is expanded, showing a "CSV File" section with a "Browse" button and a file named "extensions.csv". Below this, a list of "Required(*)/Recommended Headers" is displayed, including: extension (*Extension), name (*Name), description (Description), tech (Device Technology), secret (Secret [Enter "REGEN" to regenerate]), callwaiting_enable (Call Waiting Enabled: ENABLED to enable, blank to disable), findmefollow_enabled (Follow Me Enabled [Blank to disable]), findmefollow_grplist (Follow Me List), languages_language (Valid language string), parkpro_pagegroup (Default Parkinglot, Blank for none.), voicemail_enable (Voicemail Enable [Blank to disable]), voicemail (Voicemail Context), voicemail_vmpwd (Voicemail Password), voicemail_email (Voicemail E-Mail), voicemail_options (Voicemail Options is a pipe-delimited list of options. Example: attach=no|delete=no), voicemail_same_exten (Require From Same Extension[Blank/no to disable,yes for enable]), disable_star_voicemail (To Disable * in Voicemail Menu use Blank/no OR yes), and vmx_unavail_enabled (VMX Use when Unavailable "enabled" and for disable use:blocked).

اعداد الخطوط الفرعية دفعة واحدة

- انقر على Import لاستيراد البيانات من الملف ثم انقر على Finished

The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: 192.168.0.110/admin/config.php?display=bulkhandler&activity=validate. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'Data Validation' and features a 'Replace/Update existing data' section with 'Yes' and 'No' radio buttons. A search bar and a list view icon are also present. The table below lists user data with columns for ID, Extension, Name, Description, Device Technology, Secret, Call Waiting Enabled, Language, and Actions. The table contains 9 rows of user data. At the bottom, there are 'Cancel' and 'Import' buttons.

ID	Extension	Name	Description	Device Technology	Secret	Call Waiting Enabled	Language	Actions
0	201	User 201			201			
1	202	User 202			202			
2	203	User 203			203			
3	204	User 204			204			
4	205	User 205			205			
5	206	User 206			206			
6	207	User 207			207			
7	208	User 208			208			
8	209	User 209			209			

» Cancel Import

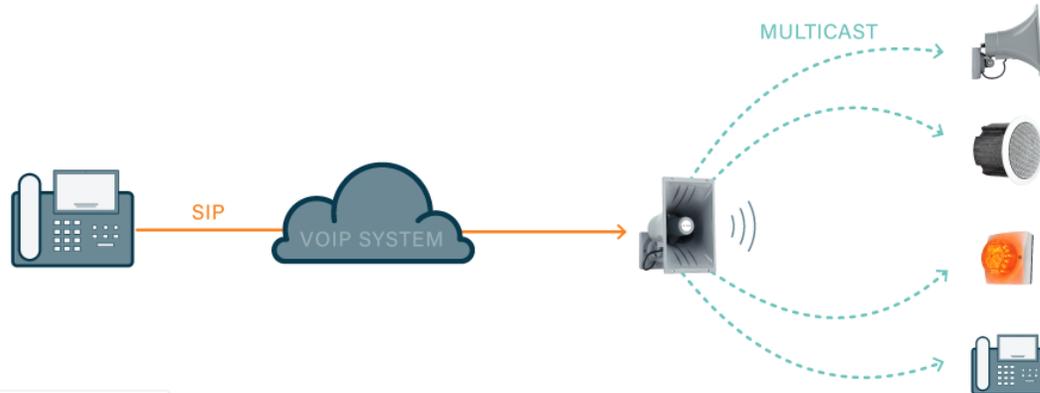
اعداد الخطوط الفرعية دفعة واحدة

- انقر على Apply Config لتطبيق الاعدادات الجديدة

The screenshot displays the FreePBX Administration interface. The browser address bar shows the URL: 192.168.0.110/admin/config.php?display=bulkhandler&activity=import. The interface includes a navigation menu with tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible in the top right. The main content area is titled 'Bulk Handler' and features 'Export' and 'Import' buttons. Below these are several category tabs: Extensions, DIDs, Trunks, User Manager Users, User Manager Groups, UCP Templates, Allowlist, Blacklist, Conferences, and Contacts. A sub-section for 'Extensions' is expanded, showing a 'What are "extensions"?' help link and a 'CSV File' section with a 'Browse' button. The 'Required(*)/Recommended Headers' section lists various fields for CSV import, such as extension, name, description, tech, secret, callwaiting_enable, findmefollow_enabled, findmefollow_grplist, languages_language, parkpro_pagegroup, voicemail_enable, voicemail, voicemail_vmpwd, voicemail_email, voicemail_options, voicemail_same_exten, disable_star_voicemail, and vmx_unavail_enabled.

التنبيه الصوتي

- يتيح التنبيه الصوتي (Paging) في المقسم الهاتفي الفرعي (PBX) بث اعلان صوتي عبر مجموعة من اجهزة الاستقبال او الهواتف الفرعية في نفس الوقت
- يستخدم التنبيه الصوتي عادة في المدارس والمستشفيات والمؤسسات التي تتطلب الاعلان باتجاه واحد لمجموعة واسعة من الموظفين
- يتيح الاتصال الداخلي (Intercom) التواصل باتجاهين مما يسمح للمستلمين بالرد على الاعلان الصوتي عبر الضغط على زر في جهاز الاتصال ويستخدم عادة ضمن مجموعة اصغر من الموظفين



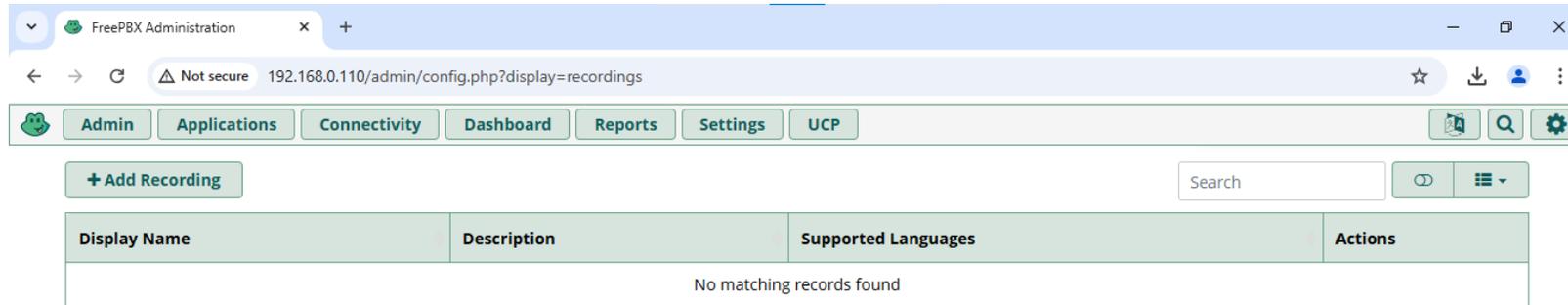
اعداد التنبيه الصوتي

• اذهب الى Admin > System Recordings

The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.110/admin/config.php?display=index`. The top navigation bar includes tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The left sidebar menu is open, with 'System Recordings' highlighted. The main content area shows a 'System Overview' section with a 'Security Issue' alert: '10 extensions/trunks have weak secrets. This is a critical issue and should be resolved urgently.' Below this, there are several status bars for 'secrets', 'during the beta period', 'connectivity' category', and 'stats'. The right sidebar contains a 'FreePBX - Let Freedom Ring Feed' with a list of articles, a 'Sangoma Technologies Feed' with another list of articles, and a 'FreePBX Statistics' section with a line graph showing Asterisk, Uptime, CPU, Memory, Disk, and Network metrics. The bottom of the browser window shows the URL `192.168.0.110/admin/config.php?display=recordings`.

اعداد التنبيه الصوتي

- انقر على + لاضافة تسجيل صوتي



FreePBX Administration

Not secure 192.168.0.110/admin/config.php?display=recordings

Admin Applications Connectivity Dashboard Reports Settings UCP

+ Add Recording Search

Display Name	Description	Supported Languages	Actions
No matching records found			

اعداد التنبيه الصوتي

- اصف تسمية توضيحية للتسجيل الصوتي وتحميل ملف التسجيل الصوتي

FreePBX Administration

Not secure 192.168.0.110/admin/config.php?display=recordings&action=add

Admin Applications Connectivity Dashboard Reports Settings UCP

Add New System Recording

Name	Ding
Description	
File List for English	English ▶ custom/announcement-ding
Upload Recording	Browse Drop Multiple Files or Archives Here
Record Over Extension	Enter Extension... Call
Add System Recording	Select a system recording
Link to Feature Code	Yes No
Feature Code Password	

Submit Reset

اعداد التنبيه الصوتي

- انقر على Apply Config لتطبيق الاعدادات الجديدة



FreePBX Administration

Not secure 192.168.0.110/admin/config.php?display=recordings

Admin Applications Connectivity Dashboard Reports Settings UCP Apply Config

+ Add Recording Search

Display Name	Description	Supported Languages	Actions
Ding		English	 

Showing 1 to 1 of 1 rows

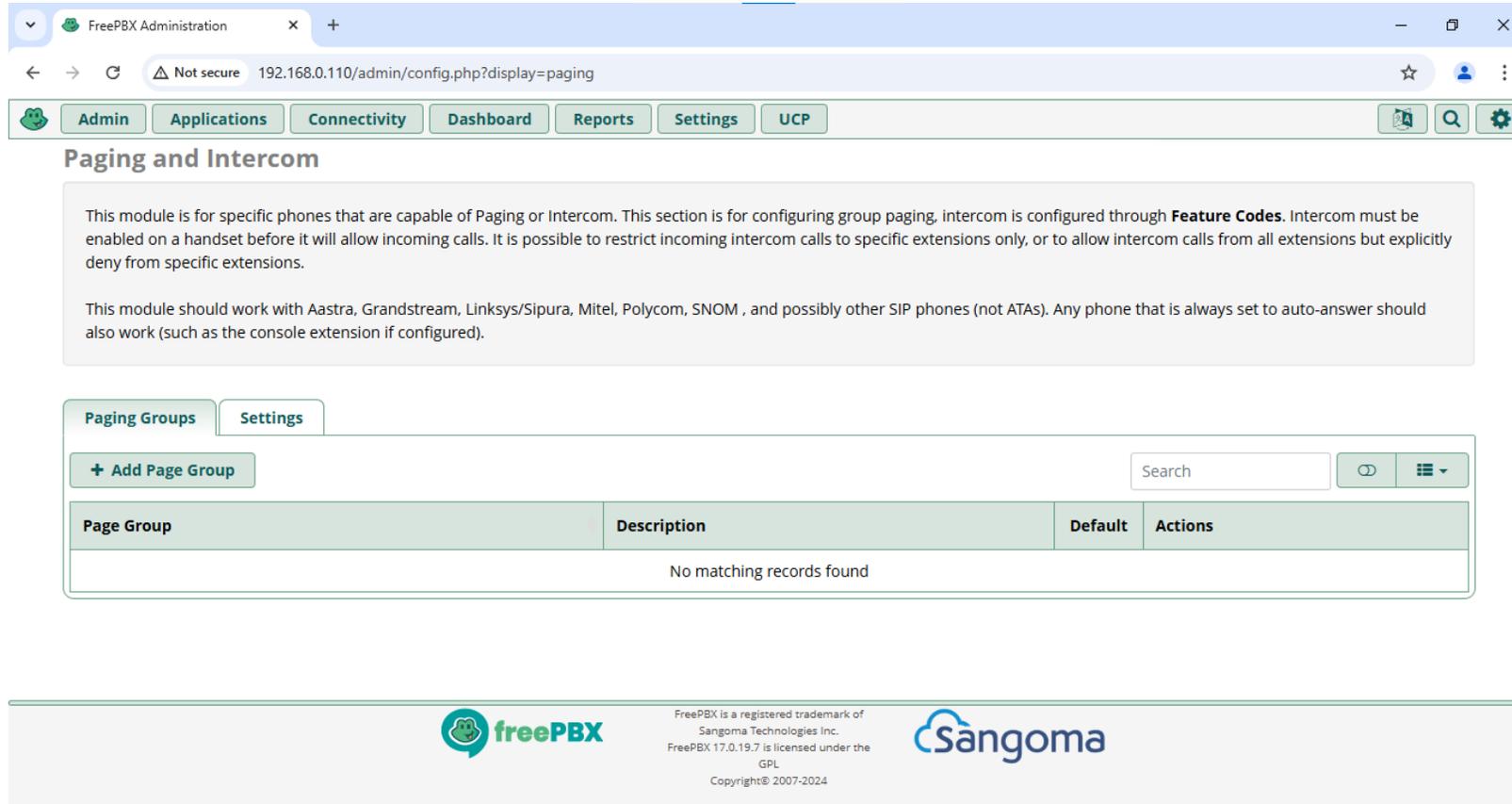
اعداد التنبيه الصوتي

• اذهب الى Applications > Paging and Intercom

The screenshot displays the FreePBX Administration web interface. The browser address bar shows '192.168.0.110/admin/config.php#'. The navigation menu includes 'Admin', 'Applications', 'Connectivity', 'Dashboard', 'Reports', 'Settings', and 'UCP'. The 'Applications' menu is expanded, showing options like 'Dynamic Routes', 'Follow Me', 'IVR', 'Languages', 'Misc Applications', 'Misc Destinations', 'Missed Call Notification', 'Paging and Intercom', 'Park and Announce', 'Parking', 'Property Management', 'Queue Callback', 'Queue Priorities', 'Queues', 'Ring Groups', 'Set CallerID', 'Text To Speech', 'Time Conditions', 'Time Groups', 'Virtual Queues', and 'Voicemail Blasting'. The 'Paging and Intercom' option is selected. The main content area shows a 'Security Issue' warning: 'extensions/trunks have weak secrets. This is a critical issue and should be solved urgently'. Below the warning, there are several configuration sections with status indicators: 'a period' (yellow), 'category' (green), and another green section. On the right side, there are three feeds: 'FreePBX - Let Freedom Ring Feed', 'Sangoma Technologies Feed', and 'FreePBX Statistics'. The 'FreePBX Statistics' section shows a graph for 'Nov 10 19:04:01' with the following data: Users Online: 0, Users Offline: 9, Trunks Online: 0, In Use: 0. The legend indicates: Users Online (blue), Users Offline (red), Trunks Online (purple), Trunks Offline (green), and Channels In Use (light blue).

اعداد التنبيه الصوتي

• انقر على + لاضافة Page Group



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.110/admin/config.php?display=paging. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled "Paging and Intercom" and contains the following text:

This module is for specific phones that are capable of Paging or Intercom. This section is for configuring group paging, intercom is configured through **Feature Codes**. Intercom must be enabled on a handset before it will allow incoming calls. It is possible to restrict incoming intercom calls to specific extensions only, or to allow intercom calls from all extensions but explicitly deny from specific extensions.

This module should work with Aastra, Grandstream, Linksys/Sipura, Mitel, Polycom, SNOM, and possibly other SIP phones (not ATAs). Any phone that is always set to auto-answer should also work (such as the console extension if configured).

The interface includes tabs for "Paging Groups" and "Settings". Below the tabs is a "+ Add Page Group" button and a search input field. A table with the following columns is displayed:

Page Group	Description	Default	Actions
No matching records found			

The footer of the page contains the FreePBX logo, the text "FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright© 2007-2024", and the Sangoma logo.

اعداد التنبيه الصوتي

- ادخل الرقم الفرعي للمجموعة والوصف ثم اختر الخطوط الفرعية لاضافتها الى المجموعة

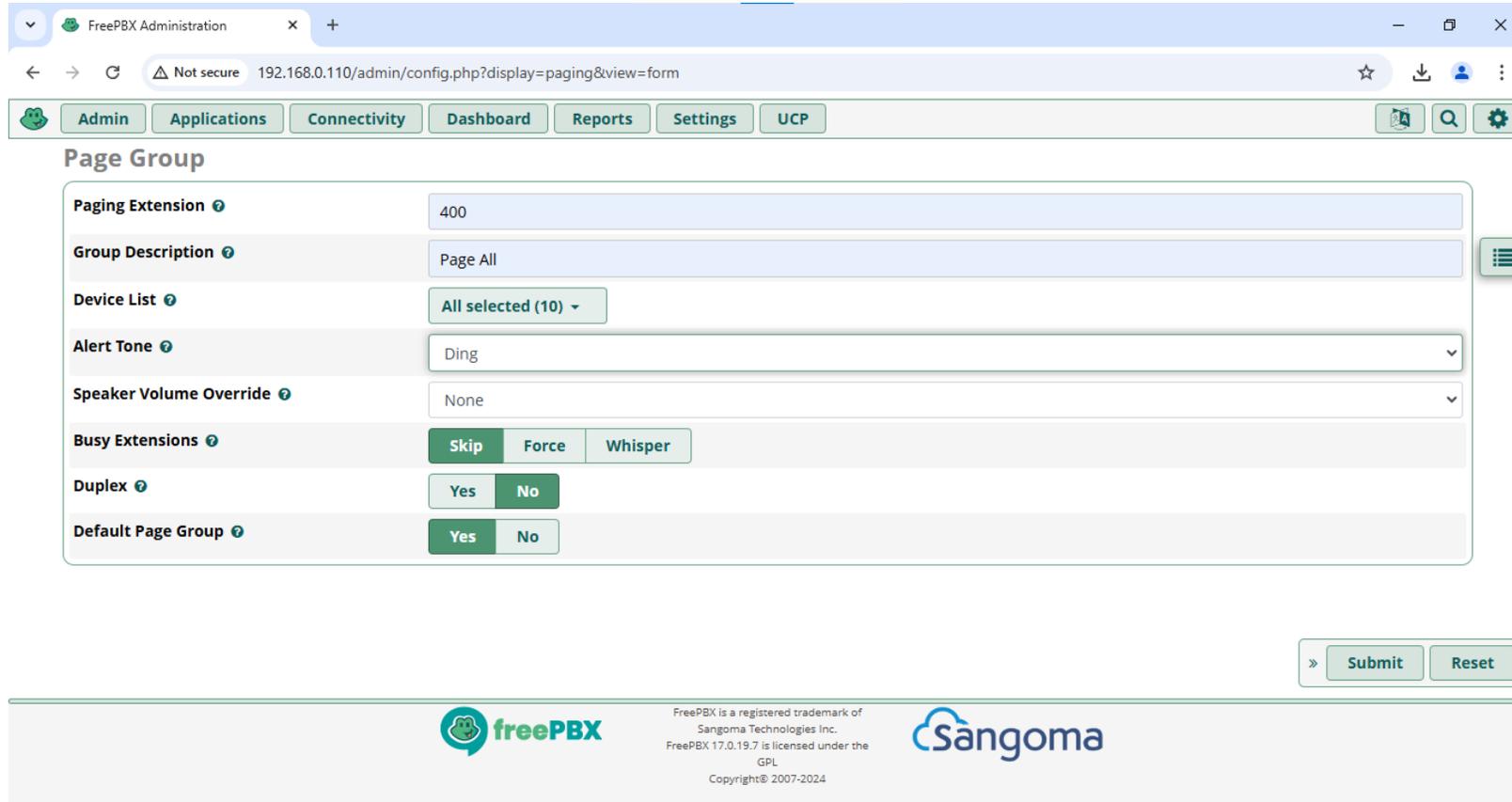
The screenshot shows the 'Page Group' configuration page in the FreePBX Administration interface. The page is titled 'Page Group' and contains several configuration fields:

- Paging Extension:** 400
- Group Description:** Page All
- Device List:** All selected (10)
- Alert Tone:** Whisper
- Speaker Volume Override:** (empty)
- Busy Extensions:** (empty)
- Duplex:** (empty)
- Default Page Group:** (empty)

At the bottom right, there are 'Submit' and 'Reset' buttons. The footer of the page includes the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright © 2007-2024', and the Sangoma logo.

اعداد التنبيه الصوتي

- اختر نغمة التنبيه (Alert Tone) قبل بث الاعلان الصوتي



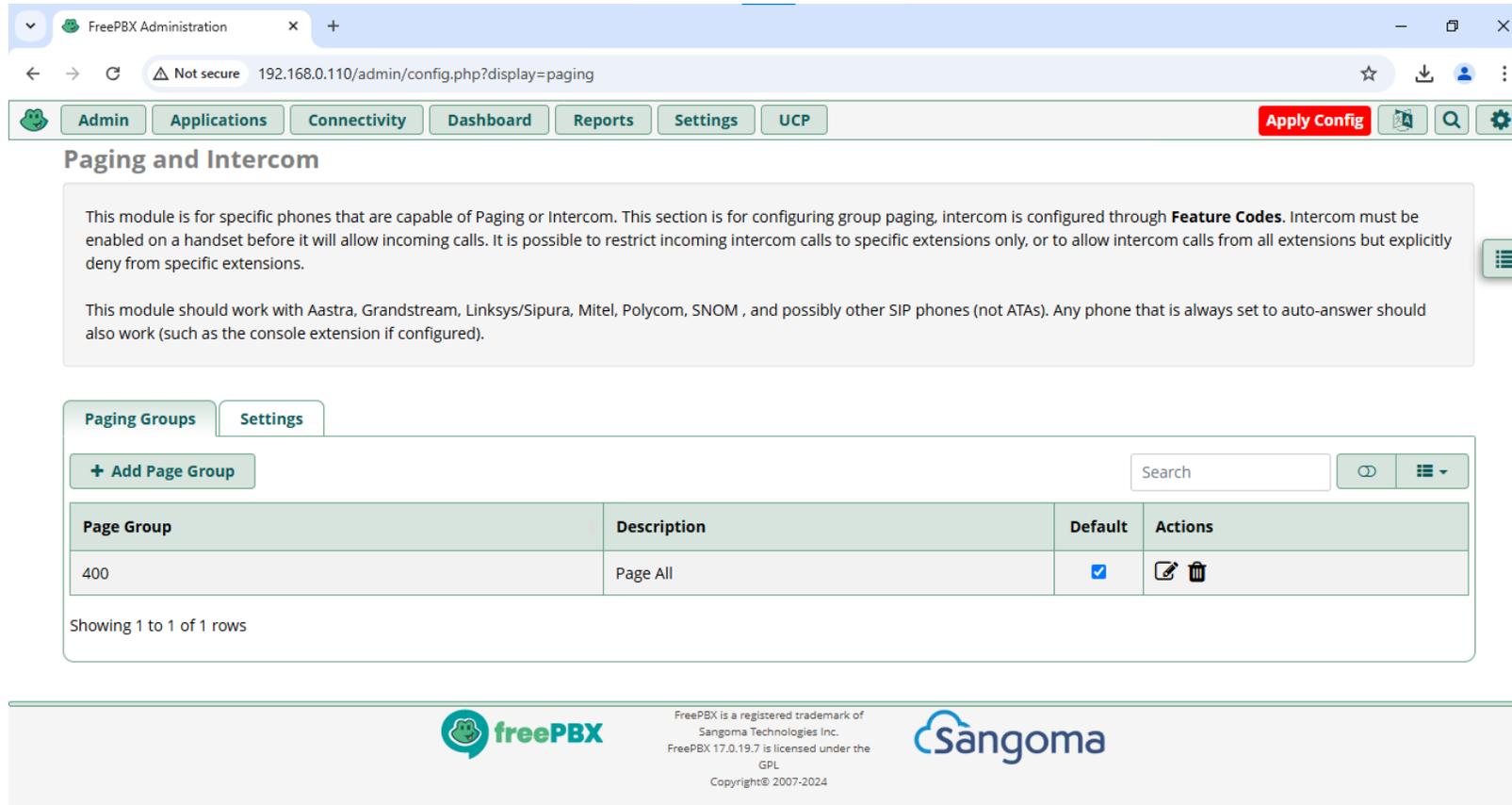
The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: 192.168.0.110/admin/config.php?display=paging&view=form. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'Page Group' and contains the following configuration options:

- Paging Extension: 400
- Group Description: Page All
- Device List: All selected (10)
- Alert Tone: Ding
- Speaker Volume Override: None
- Busy Extensions: Skip, Force, Whisper
- Duplex: Yes, No
- Default Page Group: Yes, No

At the bottom right, there are 'Submit' and 'Reset' buttons. The footer contains the FreePBX logo, the text 'FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright© 2007-2024', and the Sangoma logo.

اعداد التنبيه الصوتي

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot displays the FreePBX Administration interface. The browser address bar shows the URL `192.168.0.110/admin/config.php?display=paging`. The navigation menu includes **Admin**, **Applications**, **Connectivity**, **Dashboard**, **Reports**, **Settings**, and **UCP**. A red **Apply Config** button is visible in the top right corner.

Paging and Intercom

This module is for specific phones that are capable of Paging or Intercom. This section is for configuring group paging, intercom is configured through **Feature Codes**. Intercom must be enabled on a handset before it will allow incoming calls. It is possible to restrict incoming intercom calls to specific extensions only, or to allow intercom calls from all extensions but explicitly deny from specific extensions.

This module should work with Aastra, Grandstream, Linksys/Sipura, Mitel, Polycom, SNOM, and possibly other SIP phones (not ATAs). Any phone that is always set to auto-answer should also work (such as the console extension if configured).

Paging Groups | **Settings**

[+ Add Page Group](#) 🔍 ☰

Page Group	Description	Default	Actions
400	Page All	<input checked="" type="checkbox"/>	✎ 🗑️

Showing 1 to 1 of 1 rows

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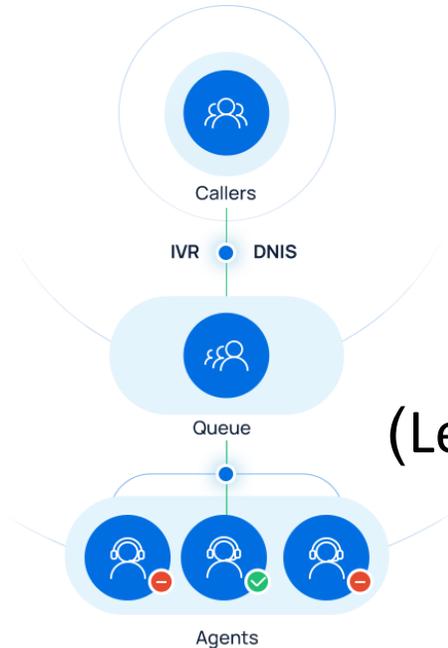
اختبار الاتصال

- تحقق من التنبيه الصوتي عبر الاتصال على الرقم الفرعي للمجموعة



قوائم الانتظار

- تستخدم قوائم الانتظار (Queues) في تلقي عدد كبير من المكالمات الواردة وتقديم رسائل صوتية اثناء الانتظار قبل الرد على المكالمة من قبل احد الموظفين او المندوبين (agents)
- عند الاتصال على رقم الهاتف، يتم وضع المتصلين في قائمة انتظار مع الاستماع الى نغمة صوتية واعلانات مسجلة الى ان يقوم احد المندوبين بالرد على المكالمة
- كيفية توزيع المكالمات الواردة في قائمة الانتظار على المندوبين:



- الاتصال على كافة المندوبين في نفس الوقت (Ring All)
- الاتصال على المندوبين بشكل متسلسل (Linear)
- الاتصال على المندوبين بشكل دوري (Round Robin)
- الاتصال على المندوب الذي لم يستقبل مكالمات مدة اطول مؤخرا (Least Recent)
- الاتصال على المندوب الذي اتم اقل عدد من المكالمات (Fewest Calls)

اعداد قوائم الانتظار

• اذهب الى Applications > Queues

The screenshot displays the FreePBX Administration web interface. The browser address bar shows the URL `192.168.0.110/admin/config.php?display=index`. The navigation menu at the top includes 'Admin', 'Applications', 'Connectivity', 'Dashboard', 'Reports', 'Settings', and 'UCP'. The left sidebar menu is open, showing 'Queues' selected. The main content area displays the 'Queues' configuration page, which includes a 'Security Issue' warning: 'extensions/trunks have weak secrets' and 'this is a critical issue and should be solved urgently'. The right sidebar contains three sections: 'FreePBX - Let Freedom Ring Feed', 'Sangoma Technologies Feed', and 'FreePBX Statistics'. The 'FreePBX Statistics' section shows a line graph with the following data points for Nov 15 13:31:02: Users Online: 0, Users Offline: 0, Trunks Online: 0, Trunks Offline: 0, In Use: 0. The graph also shows 'Channels In Use' and 'Network Usage'.

اعداد قوائم الانتظار

• انقر على + لاضافة Queue



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.110/admin/config.php?display=queues. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'Queues' and contains a '+ Add Queue' button, a search bar, and a table with columns for Queue, Description, and Actions. The table currently displays 'No matching records found'.

اعداد قوائم الانتظار

- ادخل الرقم الفرعي لقائمة الانتظار واسم القائمة في تبويب General Settings

The screenshot shows the 'Queues Add Queue' form in the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.110/admin/config.php?display=queues&view=form. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The form is divided into several tabs: General Settings, Queue Agents, Timing & Agent Options, Capacity Options, Caller Announcements, Advanced Options, and Reset Queue Stats. The 'General Settings' tab is currently selected. The form fields are as follows:

Queue Number	600
Queue Name	Support Queue
Queue No Answer	<input type="radio"/> Yes <input checked="" type="radio"/> No
Call Confirm	<input type="radio"/> Yes <input checked="" type="radio"/> No
Call Confirm Announce	Default
CID Name Prefix	Support:
Wait Time Prefix	<input type="radio"/> Yes <input checked="" type="radio"/> No
Alert Info	None
Ringer Volume Override	None
Ringer Volume Override Mode	Never
Restrict Dynamic Agents	<input type="radio"/> Yes <input checked="" type="radio"/> No
Agent Restrictions	<input checked="" type="radio"/> Call as Dialed <input type="radio"/> No Follow-Me or Call Forward <input type="radio"/> Extensions Only
Ring Strategy	ringall

At the bottom right of the form, there are 'Submit' and 'Reset' buttons.

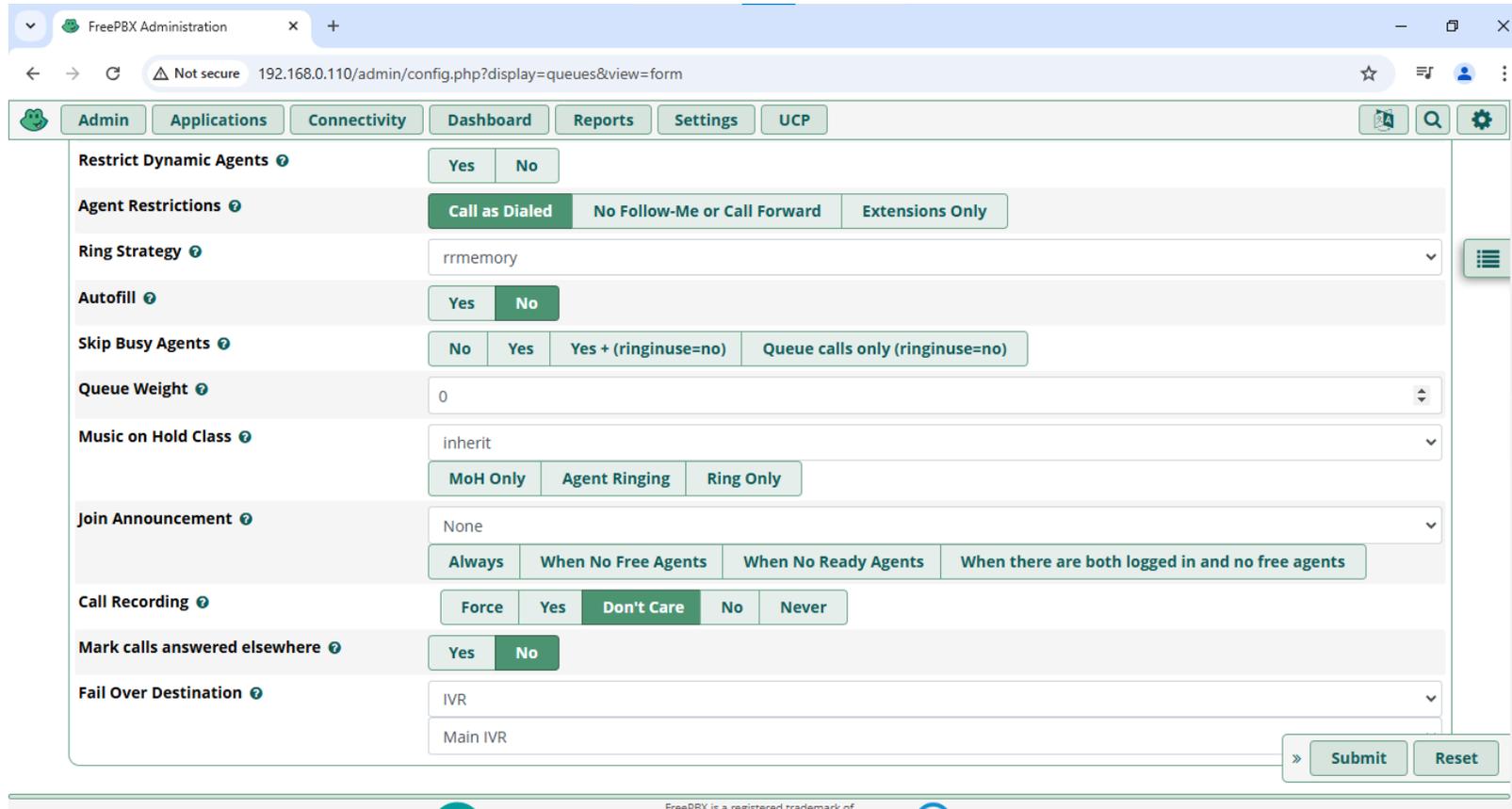
اعداد قوائم الانتظار

- اختر كيفية توزيع المكالمات الواردة في قائمة الانتظار على المندوبين (Ring Strategy)

The screenshot shows the FreePBX Administration interface for configuring a queue. The 'Ring Strategy' dropdown menu is open, displaying the following options: ringall, leastrecent, fewestcalls, random, rrmemory (highlighted), rrrordered, linear, wrandom, and None. The 'Agent Restrictions' are set to 'Call as Dialed'. Other visible settings include CID Name Prefix (Support:), Wait Time Prefix (Yes/No), Alert Info (None), Ringer Volume Override (None), Ringer Volume Override Mode (Never), Restrict Dynamic Agents (Yes/No), Autofill (ringall), Skip Busy Agents (fewestcalls), Queue Weight (random), Music on Hold Class (rrordered), and Join Announcement (None). The interface includes navigation tabs (Admin, Applications, Connectivity, Dashboard, Reports, Settings, UCP) and a 'Submit' button.

اعداد قوائم الانتظار

- اختر وجهة المكالمة الواردة اذا لم يرد المندوبين عليها (Fail Over Destination)



The screenshot displays the FreePBX Administration interface for configuring queue settings. The browser address bar shows the URL: 192.168.0.110/admin/config.php?display=queues&view=form. The interface includes a navigation menu with tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main configuration area is divided into several sections:

- Restrict Dynamic Agents:** Yes (selected), No
- Agent Restrictions:** Call as Dialed (selected), No Follow-Me or Call Forward, Extensions Only
- Ring Strategy:** rrmemory
- Autofill:** Yes (selected), No
- Skip Busy Agents:** No (selected), Yes, Yes + (ringinuse=no), Queue calls only (ringinuse=no)
- Queue Weight:** 0
- Music on Hold Class:** inherit, MoH Only (selected), Agent Ringing, Ring Only
- Join Announcement:** None, Always, When No Free Agents, When No Ready Agents, When there are both logged in and no free agents
- Call Recording:** Force, Yes, Don't Care (selected), No, Never
- Mark calls answered elsewhere:** Yes, No (selected)
- Fail Over Destination:** IVR (selected), Main IVR

At the bottom right, there are buttons for Submit and Reset. The footer of the page states: FreePBX is a registered trademark of

اعداد قوائم الانتظار

• اختر الارقام الفرعية للمندوبين الدائمين (Static Agents)

FreePBX Administration

Not secure 192.168.0.110/admin/config.php?display=queues&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

Queues Add Queue

General Settings Queue Agents Timing & Agent Options Capacity Options Caller Announcements Advanced Options Reset Queue Stats

Static Agents

202,0
203,0
204,0

Agent Quick Select

Dynamic Agents

Agent Quick Select

» Submit Reset

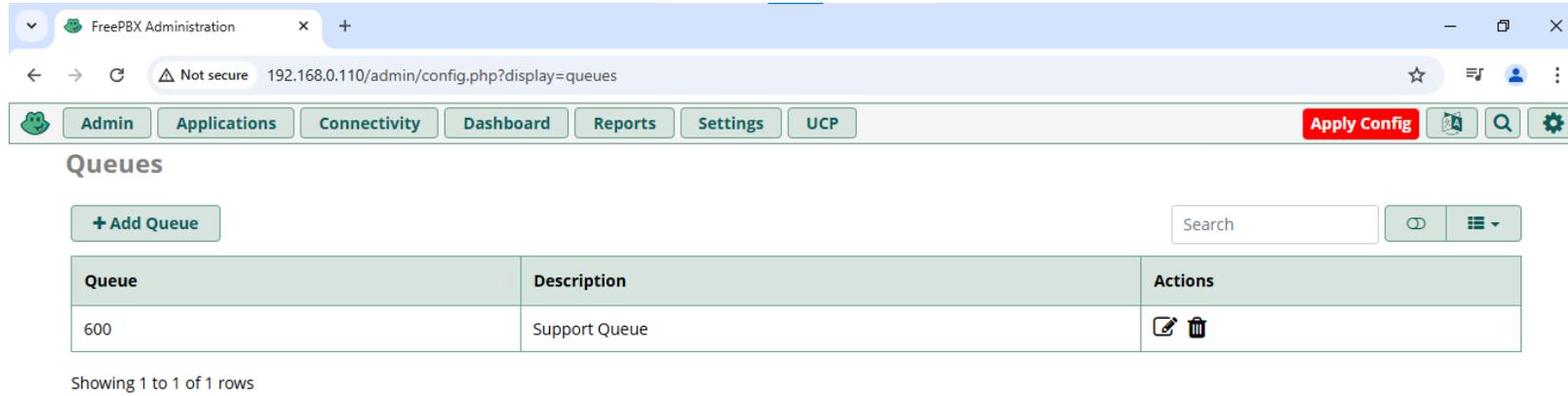
freePBX

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Sangoma

اعداد قوائم الانتظار

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.110/admin/config.php?display=queues". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible. The main content area is titled "Queues" and features a "+ Add Queue" button, a search bar, and a table with the following data:

Queue	Description	Actions
600	Support Queue	 

Showing 1 to 1 of 1 rows

اعداد قوائم الانتظار

- يمكن اعداد الخيارات التالية في قائمة الانتظار:
 - نغمة الانتظار في القائمة (Music on Hold)
 - اعلان الانضمام الى قائمة الانتظار (Join Announcement)
 - الحد الاقصى لمدة الانتظار في القائمة (Max Wait Time) مثلا 5 دقائق
 - مدة الانتظار بعد انتهاء الرد على المكالمة (Wrap-Up Time) مثلا 5 ثواني
 - مدة الرنين قبل انتهاء الوقت لاستقبال المكالمة (Agent Timeout) مثلا 15 ثانية
 - الحد الاقصى لعدد المتصلين بالانتظار (Max Callers) مثلا 10 متصلين
 - الاعلان عن ترتيب المتصل في القائمة (Announce Position) وموعد الاعلان مثلا كل دقيقة

اختبار الاتصال

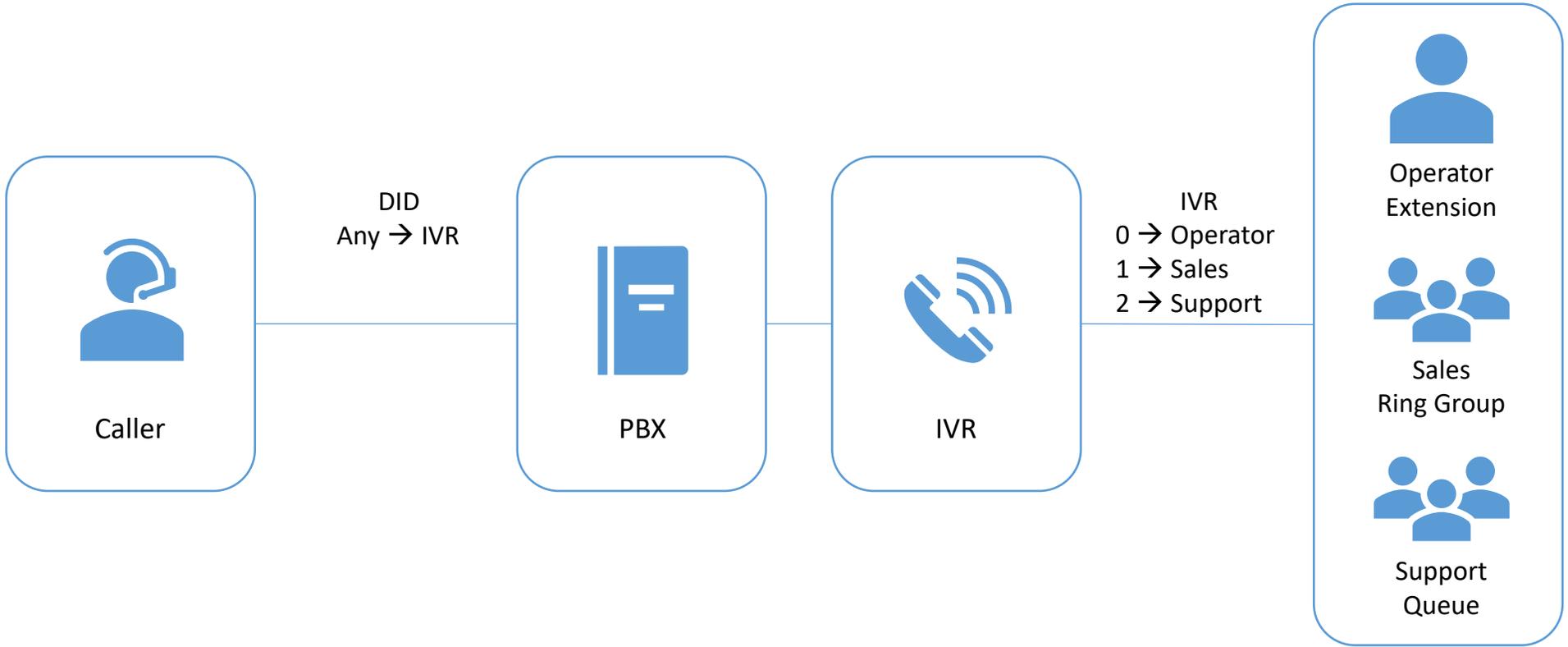
- تحقق من قائمة الانتظار عبر الاتصال على الرقم الفرعي للقائمة



تمرين: اعداد مقسم هاتفي فرعي مع قائمة انتظار

- انت مسؤول عن مقسم هاتفي فرعي (PBX) في شركة تتكون من قسم المبيعات وقسم الدعم الفني وموظف الاستعلامات، ولديك مهمة اعداد الرد الآلي (IVR) وقائمة انتظار للمكالمات الواردة الى فريق الدعم الفني
- المطلوب:
- اعداد الارقام الداخلية: 201-203 لقسم المبيعات، 204-206 لفريق الدعم الفني، 200 للاستعلامات
- اعداد التسجيل الصوتي لتقديم خيارات الاقسام: 1 المبيعات، 2 الدعم الفني، 0 الاستعلامات
- اعداد قائمة الرد الآلي لتوجيه المتصلين الى مجموعة الرنين لقسم المبيعات وقائمة الانتظار لفريق الدعم الفني والرقم الداخلي للاستعلامات وفق الخيارات الصوتية
- اعداد قائمة الانتظار لتوزيع المكالمات الواردة بين الموظفين بشكل دوري واذا لم يتم الرد على المكالمة خلال دقيقتين يتم تحويل المكالمة الى قائمة الرد الآلي
- اختبر الاتصال على المقسم الهاتفي للتحقق من قائمة الانتظار والرسائل الصوتية

تمرين: اعداد مقسم هاتفي فرعي مع قائمة انتظار



المكالمات الجماعية

- تتيح المكالمات الجماعية (Conferences) انشاء غرف اجتماعات افتراضية لتنظيم اجتماعات صوتية عن بعد
- يمكن للمشاركين الاتصال على الرقم الفرعي لغرفة الاجتماعات (Conference Room) والانضمام الى المكالمة الجماعية عبر الهاتف
- يفضل تأمين غرفة الاجتماعات باستخدام رمز دخول للمشاركين (User PIN) مع امكانية تعيين رمز دخول مختلف للمسؤول عن المكالمة الجماعية (Admin PIN)
- يمكن للمشاركين الاتصال بغرفة الاجتماعات من ارقام هاتف خارجية عبر قائمة الرد الآلي (IVR) لتوجيه المتصلين الى غرفة الاجتماعات

اعداد المكالمات الجماعية

• اذهب الى Applications > Conferences

The screenshot shows the FreePBX Administration interface. The left sidebar has the 'Conferences' menu item highlighted. The main content area is divided into several sections:

- FreePBX - Let Freedom Ring Feed:** A list of news items including 'Get AI Transcription Superpowers with Scribe for FreePBX', 'PBXact 17 - General Availability Announcement', 'Takeaways from the FreePBX 17 Survey', 'Election Winning Calls and Texts: Campaigning with FreePBX 17', '10 Ways to Support FreePBX', and 'New Hardware Reset Policy for a Smooth FreePBX 17 Transition'.
- Sangoma Technologies Feed:** A list of articles including 'How to Successfully Migrate from Traditional Telecom to Modern Packet-Based Phone Networks', 'Seamlessly Transition from POTS to IP Networks with Sangoma Vega Gateways', 'NEC Steps Out of the UCaaS Market, Now What?', 'Introducing ASK Sangoma: Your AI-powered Knowledge Bot for Quicker Support', 'Delivering a One-two Punch to NEC's Departure from the On-premises PBX Market', and 'Why Choose On-Premises Solutions In a Cloud-Dominated Era?'.
- FreePBX Statistics:** A line graph showing various metrics over time. The legend includes: Asterisk (blue), Uptime (red), CPU (green), Memory (purple), Disk (orange), and Network (yellow). The graph shows Asterisk uptime increasing and CPU usage decreasing over time.

A security warning is displayed in the center: **Security Issue** - extensions/trunks have weak secrets. This is a critical issue and should be resolved urgently.

اعداد المكالمات الجماعية

• انقر على + لاضافة Conference



FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=conferences

Admin Applications Connectivity Dashboard Reports Settings UCP

Conferences

+ Add Search

Conference	Description	Actions
No matching records found		



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اعداد المكالمات الجماعية

- ادخل الرقم الفرعي لغرفة الاجتماعات واسم الغرفة

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=conferences&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

Conferences: Add

Conference Number	<input type="text" value="500"/>
Conference Name	<input type="text" value="Team Meeting"/> 12/50
User PIN	<input type="text"/>
Admin PIN	<input type="text"/>
Language	<input type="text" value="Inherit"/>
Join Message	<input type="text" value="None"/>
Leader Wait	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Leader Leave	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Talker Optimization	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Talker Detection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Quiet Mode	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
User Count	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
User join/leave	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Music on Hold	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

» Submit Reset

اعداد المكالمات الجماعية

- ادخل رمز الدخول للمشاركين ورمز الدخول للمسؤول

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=conferences&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

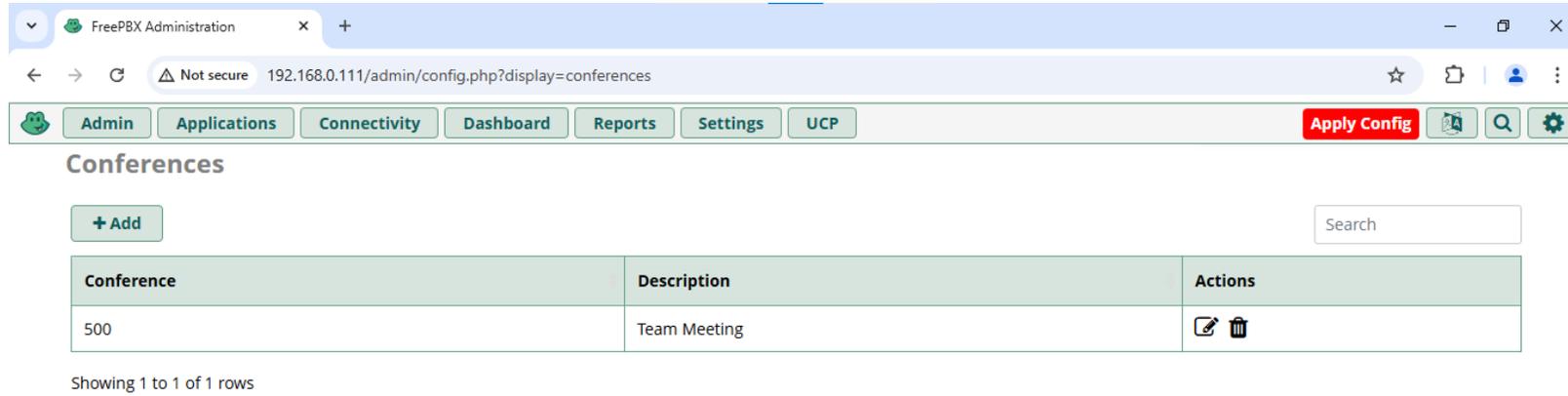
Conferences: Add

Conference Number	<input type="text" value="500"/>
Conference Name	<input type="text" value="Team Meeting"/> 12/50
User PIN	<input type="text" value="123"/>
Admin PIN	<input type="text" value="456"/>
Language	<input type="text" value="Inherit"/>
Join Message	<input type="text" value="None"/>
Leader Wait	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Leader Leave	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Talker Optimization	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Talker Detection	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Quiet Mode	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
User Count	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
User join/leave	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Music on Hold	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

» Submit Reset

اعداد المكالمات الجماعية

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.111/admin/config.php?display=conferences. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible. The main content area is titled 'Conferences' and features a '+ Add' button and a search bar. Below the search bar is a table with the following data:

Conference	Description	Actions
500	Team Meeting	 

Showing 1 to 1 of 1 rows

اعداد المكالمات الجماعية

- يمكن اعداد الخيارات التالية في غرفة الاجتماعات:
 - اعلان الانضمام الى غرفة الاجتماعات (Join Message)
 - انتظار انضمام المسؤول قبل بدء المكالمة الجماعية (Leader Wait)
 - انتهاء المكالمة الجماعية اذا غادر المسؤول (Leader Leave)
 - اعلان عدد المشاركين في المكالمة الجماعية (User Count)
 - اعلان اسماء المشاركين عند انضمامهم او مغادرتهم (User join/leave)
 - الحد الاقصى للمشاركين في المكالمة الجماعية (Maximum Participants)
 - كتم الصوت تلقائيا عند الانضمام (Mute on join)

اختبار الاتصال

- تحقق من المكالمات الجماعية عبر الاتصال على الرقم الفرعي لغرفة الاجتماعات



اتبني

- تتيح ميزة اتبني (Follow Me) تحويل المكالمات الواردة الى رقم آخر سواء رقم داخلي او خارجي
- تستخدم هذه الميزة لاستقبال المكالمات في العمل عن بعد او خارج اوقات العمل
- يجب اعداد المكالمات الصادرة في المقسم الهاتفي عند تحويل المكالمات الى ارقام خارجية
- يمكن تحديد مدة الرنين قبل تحويل المكالمة الى الرقم التالي (Ring Time)



اعداد الخطوط الفرعية

- عدّل الخط الفرعي لتفعيل ميزة اتبعني واطافة الرقم الآخر لتحويل المكالمات اليه

The screenshot shows the FreePBX Administration interface for extension 201. The browser address bar indicates the URL: 192.168.0.111/admin/config.php?display=extensions&extdisplay=201. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The 'General Settings' tab is selected, and the following options are visible:

Enabled	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Enable Calendar Matching	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Calendar	--Not Calendar Controlled--
Calendar Group	--Not Calendar Group Controlled--
Calendar Match Inverse	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Initial Ring Time	7
Ring Strategy	ringallv2-prim
Ring Time	10
Follow-Me List	201 202 <input type="button" value="Quick Select"/>
Announcement	None
Play Music On Hold	Ring <input type="button" value="Submit"/> <input type="button" value="Reset"/> <input type="button" value="Delete"/>

اعداد الخطوط الفرعية

- انقر على Apply Config لتطبيق الاعدادات الجديدة

The screenshot shows the FreePBX Administration interface for editing Extension 201. The browser address bar indicates the URL: 192.168.0.111/admin/config.php?display=extensions&extdisplay=201. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible in the top right corner.

Extension: 201

General Voicemail Find Me/Follow Me Advanced Pin Sets Other

Edit Extension

This device uses **PJSIP** technology listening on Port 5060 (UDP)

Display Name

Outbound CID

Emergency CID

Secret

Language

Language Code

User Manager Settings

Linked to User 201

Select User Directory:

Link to a Different Default User:

اختبار الاتصال

- تحقق من ميزة اتبعني عبر الاتصال على الرقم الفرعي لتحويل المكالمات الى الرقم الآخر



البريد الصوتي

- يتيح البريد الصوتي (Voicemail) للمتصلين من تسجيل رسائل صوتية في حالة عدم الرد على المكالمة او كان الخط مشغولا
- يسمح البريد الصوتي بالاستماع الى الرسائل الصوتية والتنقل بين الرسائل وحفظها وحذفها
- يمكن اعداد البريد الصوتي لكل رقم فرعي او لمجموعة من الارقام الفرعية باستخدام صندوق بريد مشترك يتيح لكافة الاعضاء في المجموعة من الوصول الى الرسائل الصوتية
- يمكن الوصول الى البريد الصوتي مباشرة عبر الاتصال على الرمز *97 من الرقم الفرعي او الاتصال على الرمز *98 للوصول الى البريد الصوتي من اي رقم فرعي
- يمكن ارسال الاشعارات او الرسائل الصوتية عبر البريد الالكتروني

اعداد الخطوط الفرعية

- عدّل الخط الفرعي لتفعيل البريد الصوتي وادخال الرقم السري

FreePBX Administration

Not secure 192.168.0.111/admin/config.php?display=extensions&extdisplay=200

Admin Applications Connectivity Dashboard Reports Settings UCP

Extension: 200

General Voicemail Find Me/Follow Me Advanced Pin Sets Other

Voicemail

Enabled Yes No

Voicemail Password
Set this password to same as extension number to force the user to setup their mailbox on first access.

Require From Same Extension Yes No

Disable (*) in Voicemail Menu Yes No

Email Address

Pager Email Address

Email Attachment Yes No

Play CID Yes No

Play Envelope Yes No

Delete Voicemail Yes No

VM Options

» Submit Reset Delete

اعداد الخطوط الفرعية

- انقر على Apply Config لتطبيق الاعدادات الجديدة

The screenshot shows the FreePBX Administration interface for editing extension 200. The browser address bar indicates the URL: 192.168.0.111/admin/config.php?display=extensions&extdisplay=200. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. A red 'Apply Config' button is visible in the top right corner.

Extension: 200

General | Voicemail | Find Me/Follow Me | Advanced | Pin Sets | Other

Edit Extension

This device uses **PJSIP** technology listening on Port 5060 (UDP)

Display Name 200

Outbound CID

Emergency CID

Secret

Language

Language Code Default

User Manager Settings

Select User Directory: PBX Internal Directory

Link to a Default User None

» Submit Reset Delete

اختبار الاتصال

- تحقق من البريد الصوتي عبر الاتصال على الرمز المختصر *97



تمرين: اعداد مقسم هاتفي فرعي مع البريد الصوتي

- انت مسؤول عن مقسم هاتفي فرعي (PBX) في شركة تتكون من قسم المبيعات وقسم الدعم الفني وموظف الاستعلامات، ولديك مهمة اعداد البريد الصوتي للمكالمات التي لم يرد عليها قسم المبيعات
- المطلوب:
- اعداد الارقام الداخلية: 201-203 لقسم المبيعات، 204-206 لقسم الدعم الفني، 200 للاستعلامات
- اعداد رقم داخلي افتراضي (Virtual Extension) لتفعيل البريد الصوتي لقسم المبيعات (299)
- اعداد مجموعة رنين لقسم المبيعات (210) تتكون من الارقام الداخلية: 201، 202، 203
- توزيع المكالمات الواردة على كافة الموظفين في المجموعة واذا لم يتم الرد على المكالمة خلال 20 ثانية يتم تحويل المكالمة الى البريد الصوتي لقسم المبيعات
- اختبر الاتصال على المقسم الهاتفي للتحقق من مجموعة الرنين والبريد الصوتي

دليل الهاتف

- يتيح دليل الهاتف (Directory) الاتصال بالارقام الداخلية في المقسم الهاتفي الفرعي عبر ادخال الاحرف الاولى من الاسم
- يسمح دليل الهاتف بالوصول الى قائمة الموظفين او الاقسام داخل الشركة بسهولة
- يمكن اضافة او تحديث الاسماء في دليل الهاتف لتسهيل العثور على الارقام الداخلية
- يمكن اضافة رمز مختصر للوصول الى دليل الهاتف الداخلي (مثلا *411*)

اعداد الخطوط الفرعية

- عدّل الخطوط الفرعية لتحديث الاسماء

FreePBX Administration

192.168.0.110/admin/config.php?display=extensions

Admin Applications Connectivity Dashboard Reports Settings UCP

All Extensions SIP [chan_pjsip] Extensions Virtual Extensions DAHDi Extensions IAX2 Extensions Custom Extensions

+ Add Extension Quick Create Extension Delete Search

<input type="checkbox"/>	Extension	Name	CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
<input type="checkbox"/>	200	Omar	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input type="checkbox"/>	201	Layla	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input type="checkbox"/>	202	Ahmed	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input type="checkbox"/>	203	Maya	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input type="checkbox"/>	204	Khaled	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input type="checkbox"/>	205	Fatima	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input type="checkbox"/>	206	Yusuf	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input type="checkbox"/>	207	Nadia	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input type="checkbox"/>	208	Rami	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
<input type="checkbox"/>	209	Samira	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					

Showing 1 to 10 of 10 rows

اعداد دليل الهاتف

• اذهب الى Applications > Directory

The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL is 192.168.0.110/admin/config.php?display=extensions. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The Applications menu is expanded, showing various options like AMD Settings, Announcements, Appointment Reminder, Broadcast, Calendar, Calendar Event Groups, Call Flow Control, Call Recording, Callback, CallerID Management, Conferences, Conferences Pro, DISA, Directory, Dynamic Routes, Follow Me, IVR, Languages, Misc Applications, Misc Destinations, and Missed Call Notification. The Directory option is highlighted. The main content area shows a table of extensions with columns for Extension, CW, DND, FM/FM, CF, CFB, CFU, Type, and Actions. The table contains several rows of data, all with Type 'pjsip' and Actions icons for edit and delete.

Extension	CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
200	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
201	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
202	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
204	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
205	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
206	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
207	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
208	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					
209	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pjsip					

اعداد دليل الهاتف

• انقر على + لاضافة Directory

FreePBX Administration

Not secure 192.168.0.110/admin/config.php?display=directory

Admin Applications Connectivity Dashboard Reports Settings UCP

Directory

+ Add Directory Search

Directory	Default Directory	Actions
No matching records found		

اعداد دليل الهاتف

- ادخل تسمية توضيحية للدليل

FreePBX Administration

Not secure 192.168.0.110/admin/config.php?display=directory&view=form

Admin Applications Connectivity Dashboard Reports Settings UCP

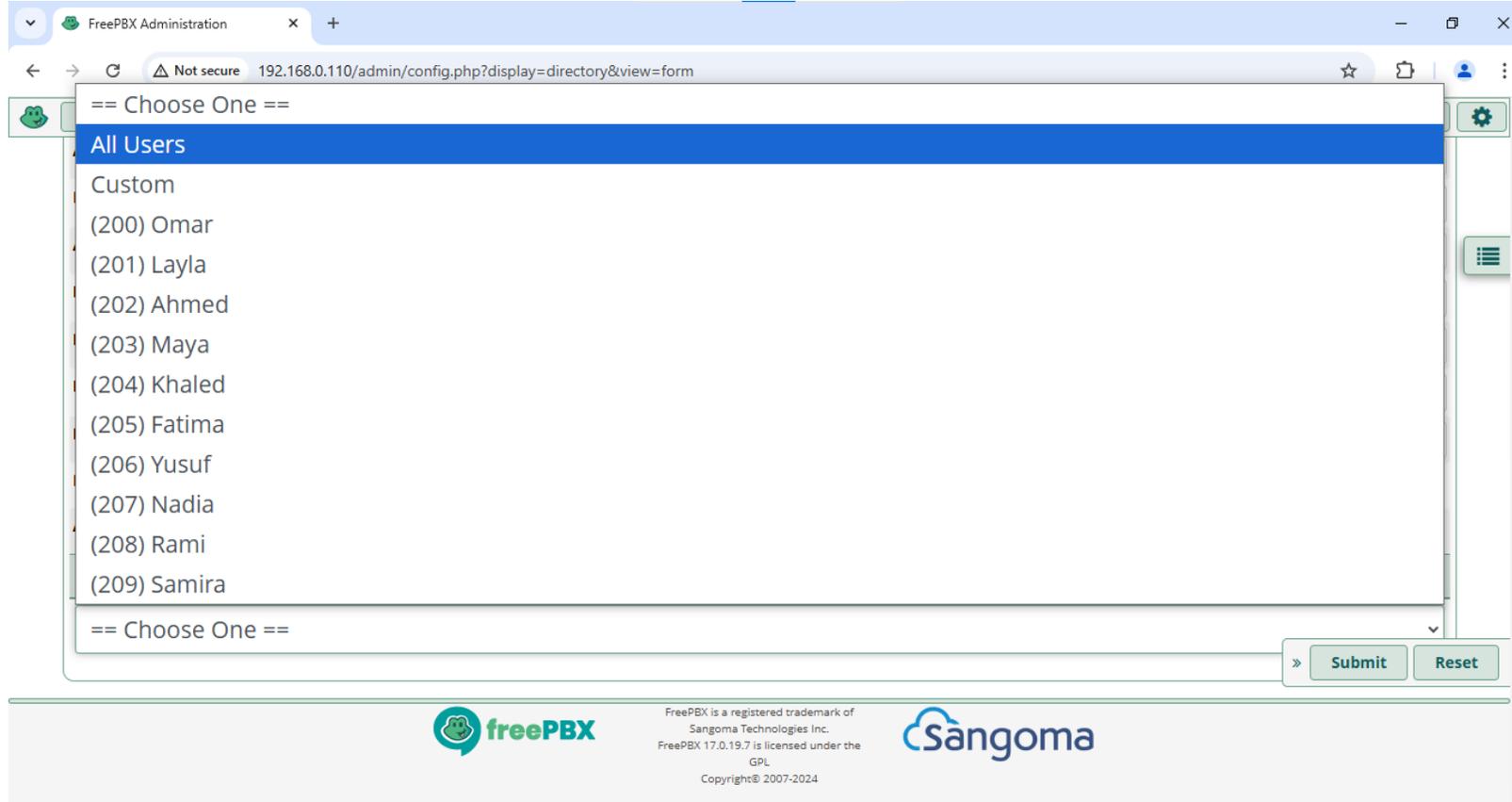
Directory

Add Directory

Directory Name	<input type="text" value="Company Directory"/>
Directory Description	<input type="text"/>
CallerID Name Prefix	<input type="text"/>
Alert Info	None
Ringer Volume Override	None
Announcement	Default
Invalid Retries	3
Invalid Retry Recording	Default
Invalid Recording	Default
Invalid Destination	== choose one ==
Return to IVR	<input type="button" value="Yes"/> <input type="button" value="No"/>
Announce Extension	<input type="button" value="Yes"/> <input type="button" value="No"/>

اعداد دليل الهاتف

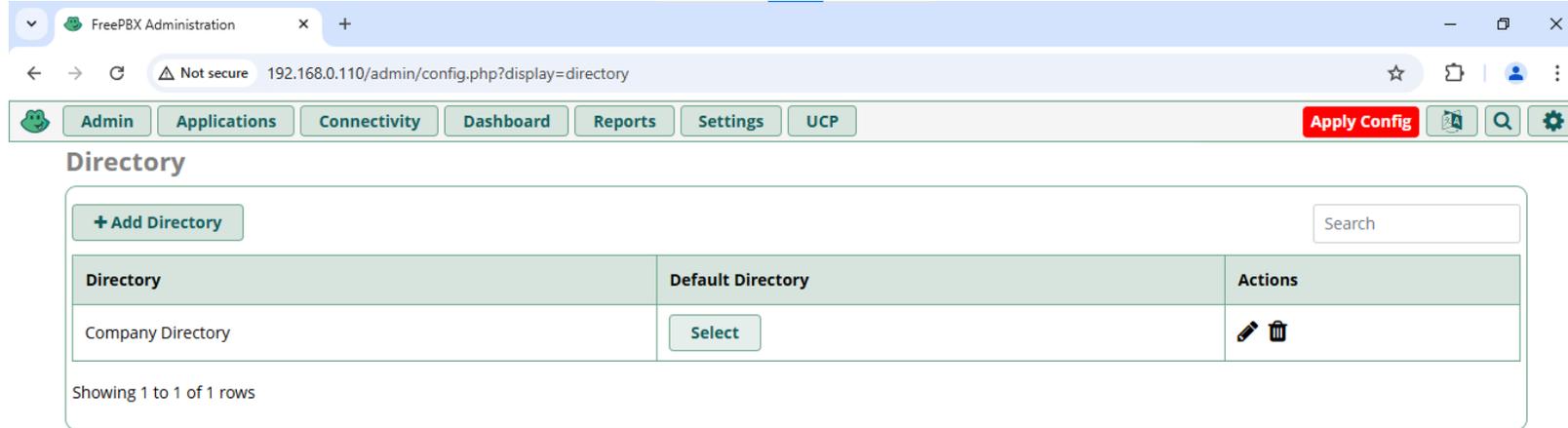
- اختر كافة المستخدمين لاضافتهم الى الدليل



The screenshot shows the FreePBX Administration interface in a web browser. The browser's address bar displays the URL: `192.168.0.110/admin/config.php?display=directory&view=form`. The main content area features a dropdown menu titled "==" Choose One ==". The menu is open, showing a list of options: "All Users" (highlighted in blue), "Custom", "(200) Omar", "(201) Layla", "(202) Ahmed", "(203) Maya", "(204) Khaled", "(205) Fatima", "(206) Yusuf", "(207) Nadia", "(208) Rami", and "(209) Samira". Below the dropdown menu, there are "Submit" and "Reset" buttons. The footer of the page contains the FreePBX logo, the text "FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL Copyright© 2007-2024", and the Sangoma logo.

اعداد دليل الهاتف

- انقر على Apply Config لتطبيق الاعدادات الجديدة



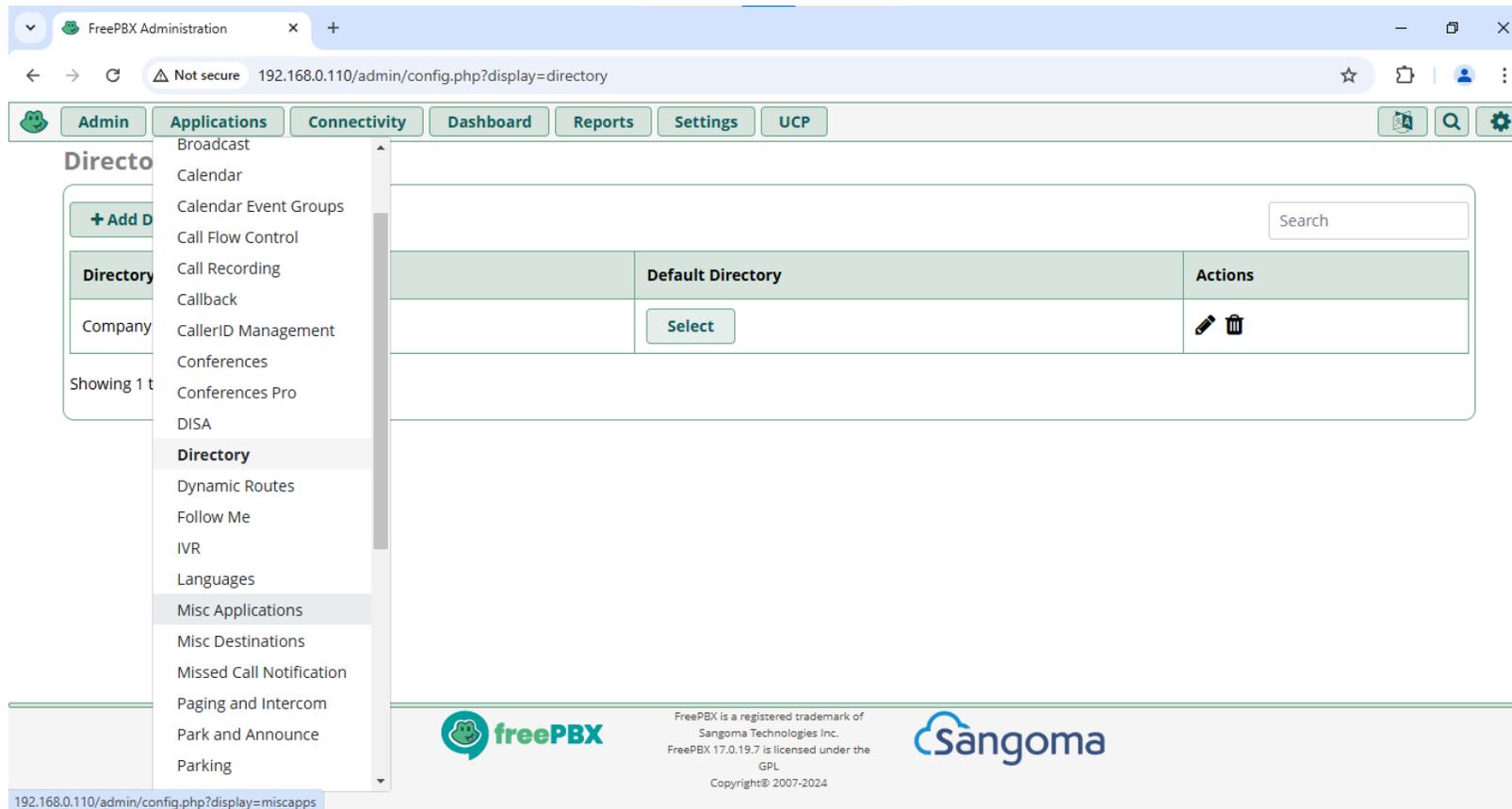
The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.110/admin/config.php?display=directory". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible. The main content area is titled "Directory" and contains a "+ Add Directory" button, a search input field, and a table with the following structure:

Directory	Default Directory	Actions
Company Directory	Select	 

Showing 1 to 1 of 1 rows

اعداد دليل الهاتف

- اذهب الى Applications > Misc Applications

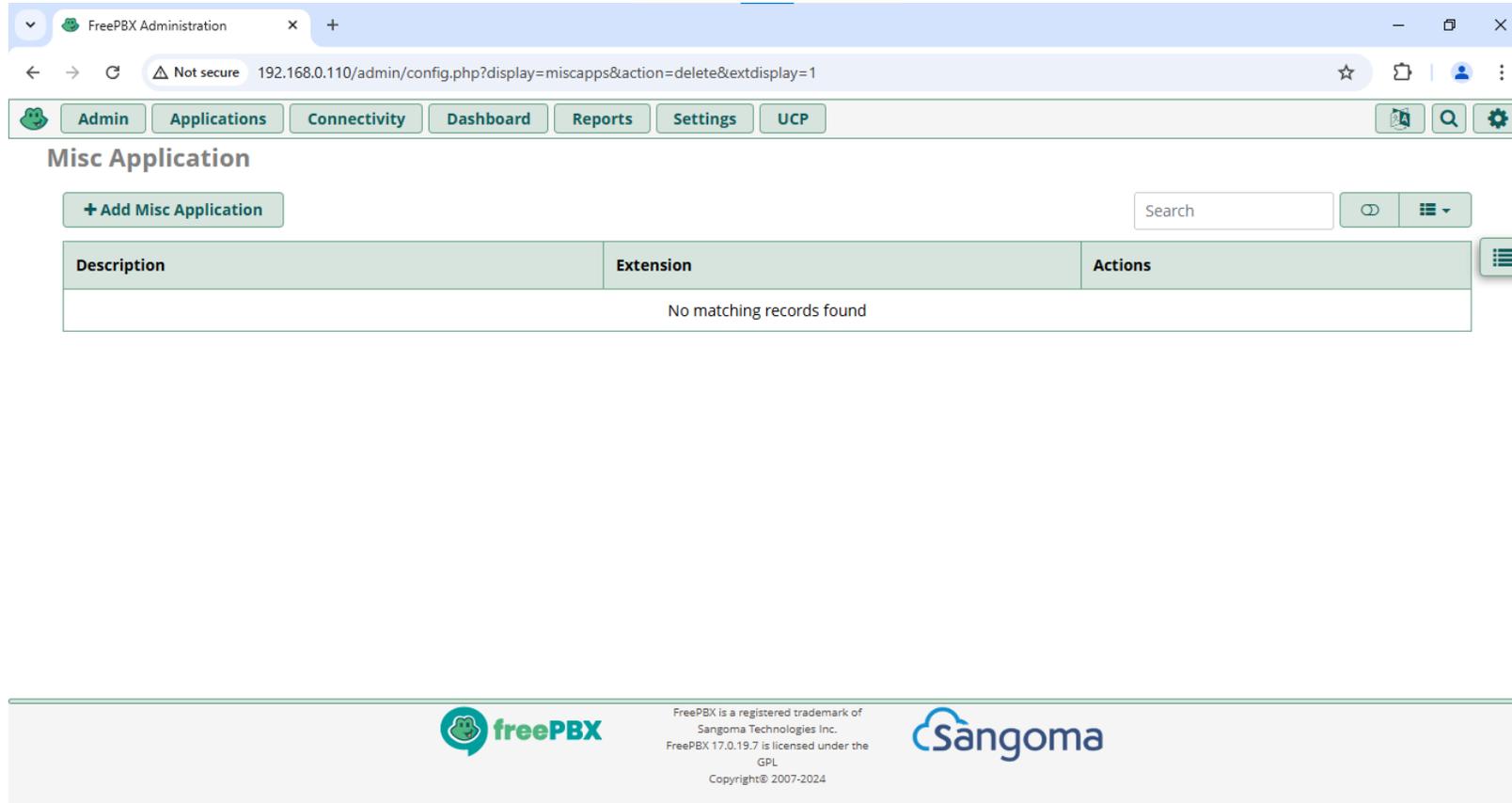


The screenshot shows the FreePBX Administration web interface. The browser address bar displays '192.168.0.110/admin/config.php?display=directory'. The top navigation bar includes tabs for Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The left sidebar menu is open, showing a list of application categories. The 'Misc Applications' item is highlighted. The main content area displays a table with one entry, 'Default Directory', and a 'Select' button. The footer contains the FreePBX logo, copyright information, and the Sangoma logo.

Default Directory	Actions
Select	 

اعداد دليل الهاتف

- انقر على + لاضافة رمز مختصر لدليل الهاتف الداخلي



The screenshot shows the FreePBX Administration interface. The browser address bar indicates the URL: 192.168.0.110/admin/config.php?display=miscapps&action=delete&extdisplay=1. The navigation menu includes Admin, Applications, Connectivity, Dashboard, Reports, Settings, and UCP. The main content area is titled 'Misc Application' and contains a '+ Add Misc Application' button, a search bar, and a table with columns for Description, Extension, and Actions. The table currently displays 'No matching records found'.

اعداد دليل الهاتف

- اصف تسمية توضيحية لدليل الهاتف ورمز مختصر للاتصال من الخطوط الفرعية

FreePBX Administration

Not secure 192.168.0.110/admin/config.php?display=miscapps&action=add

Admin Applications Connectivity Dashboard Reports Settings UCP

Misc Application

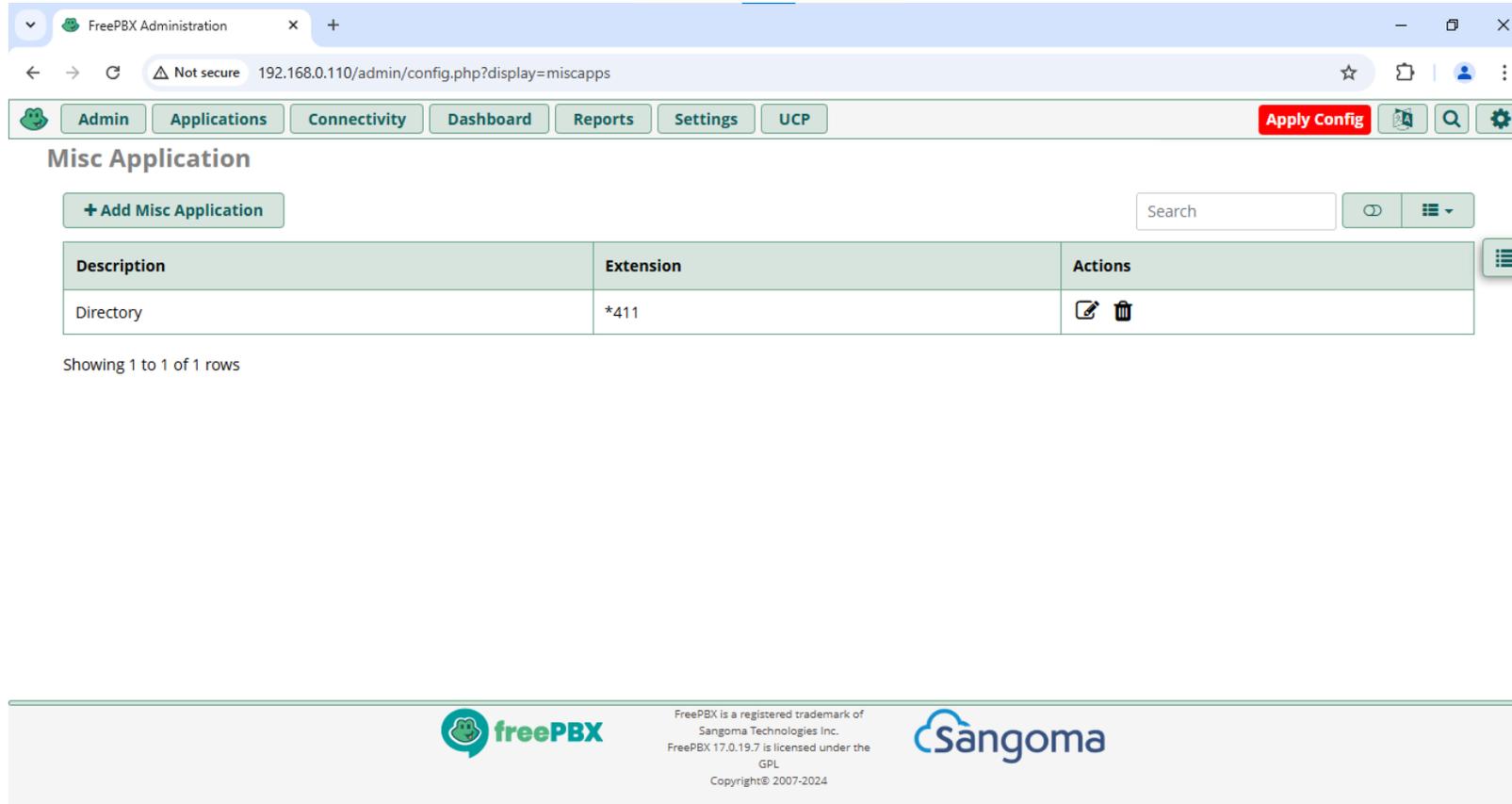
Enable	<input checked="" type="radio"/> Yes <input type="radio"/> No
Description	Directory
Feature Code	*411
Destination	Directory
	Company Directory

» Submit Reset

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اعداد دليل الهاتف

- انقر على Apply Config لتطبيق الاعدادات الجديدة



The screenshot shows the FreePBX Administration interface. The browser address bar displays "192.168.0.110/admin/config.php?display=miscapps". The navigation menu includes "Admin", "Applications", "Connectivity", "Dashboard", "Reports", "Settings", and "UCP". A red "Apply Config" button is visible in the top right. The main content area is titled "Misc Application" and features a "+ Add Misc Application" button, a search box, and a table with one row: "Directory" with extension "*411". Below the table, it says "Showing 1 to 1 of 1 rows". The footer contains the FreePBX logo, the Sangoma logo, and copyright information: "FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 17.0.19.7 is licensed under the GPL. Copyright© 2007-2024".

FreePBX Administration

Not secure 192.168.0.110/admin/config.php?display=miscapps

Admin Applications Connectivity Dashboard Reports Settings UCP Apply Config

Misc Application

+ Add Misc Application

Search

Description	Extension	Actions
Directory	*411	 

Showing 1 to 1 of 1 rows

freePBX

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اختبار الاتصال

- تحقق من دليل الهاتف الداخلي عبر الاتصال على الرمز المختصر

