

# Analog Active Card



Configuration with 3CX  
Phone Systems

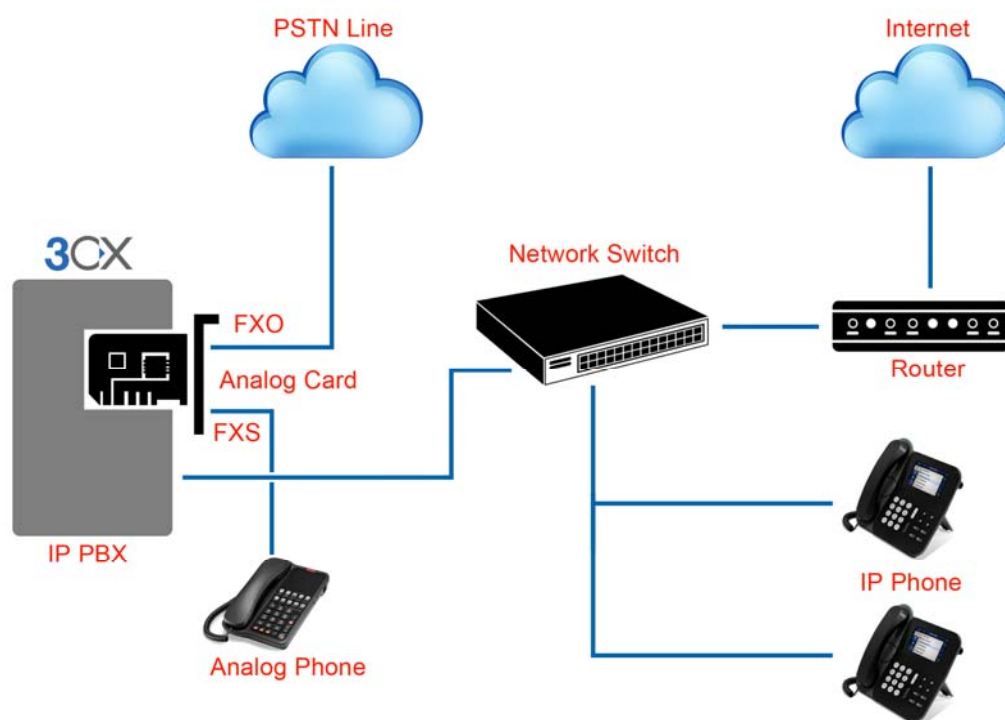
## Analog Card configuration with 3CX Phone System

This document describes a typical deployment scenario of Analog Card with 3CX Phone System in an Office Telephony environment.

The Analog Card provides the following functionalities.

FXS Modules – connectivity to analog phones and fax machines, analog trunking to legacy PBX

FXO– PSTN Line Termination for outbound/Inbound calls



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### System Requirement:

- Operating System : Windows XP/ Windows 7/ Windows Server 200X
- 3CX phone system 10 and above
- Dual Core Processor with 1 GB RAM
- Available PCIe slot

## 1. 3CX Phone System Configuration

- 1) Go to VoIP/ PSTN gateways and click “Add PSTN Gateway”.  
Select the Brand as Generic & Model as “ Gateway Device”

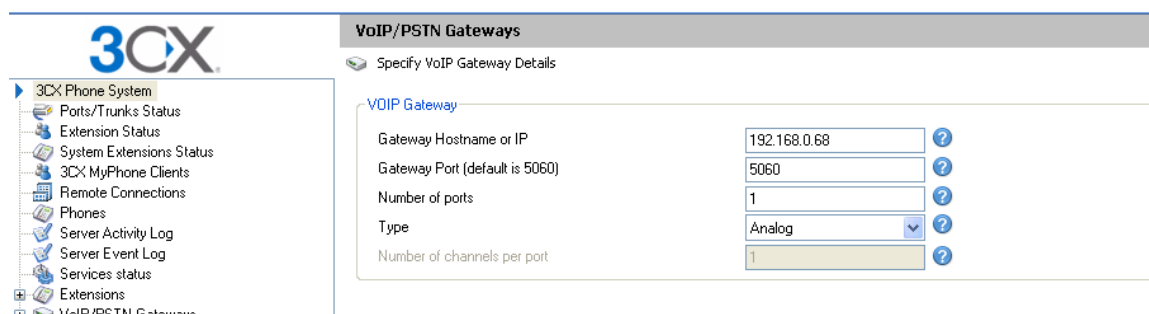


The screenshot shows the 3CX web interface. On the left is a navigation tree with 'VoIP/PSTN Gateways' selected. The main content area is titled 'VoIP/PSTN Gateways' and contains an 'Add Gateway Wizard' section. Under 'Add PSTN Gateway', the following fields are visible:

- Name: Analog\_GW
- Brand: Generic
- Model: Gateway Device
- Description: Custom Generic Gateway Device
- URL: <http://www.3cx.com>

Below the fields, a note states: "More vendor supported gateways can be found here: <http://www.3cx.com/voip-gateways/index.html>"

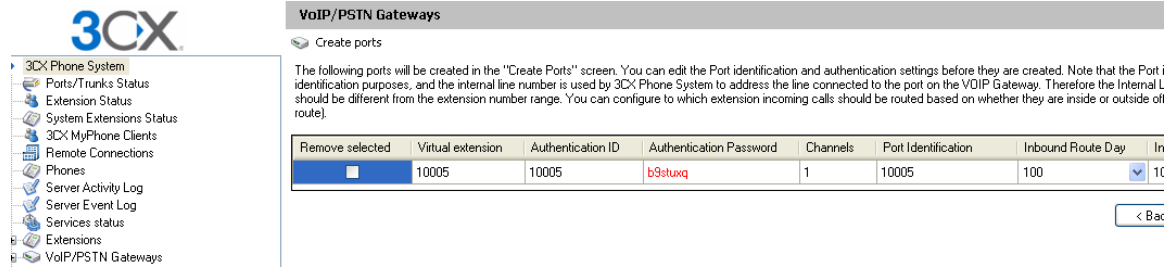
- 2) Click Next and enter gateway IP address (this is the same IP that is assigned to Analog Card) as below.  
In this example, the Gateway ip address(Analog Card IP address) is 192.168.0.68



The screenshot shows the 3CX web interface. The navigation tree on the left has 'VoIP/PSTN Gateways' selected. The main content area is titled 'VoIP/PSTN Gateways' and contains a 'Specify VoIP Gateway Details' section. Under 'VOIP Gateway', the following fields are visible:

- Gateway Hostname or IP: 192.168.0.68
- Gateway Port (default is 5060): 5060
- Number of ports: 1
- Type: Analog
- Number of channels per port: 1

- 3) Click Next and it will generate the following parameters  
The “Create Lines” page allows you to configure each channel’s parameters, namely:
  - a. Virtual Extension Number
  - b. Authentication ID
  - c. Authentication Password
  - d. Number of simultaneous calls that the channel can handle
  - e. The Port Identification (External Number) of the channel
  - f. The destination of calls that are received by the channel – These values are pre-populated, but may be changed at this point based on your need. 3CX configuration file will be generated using the parameters supplied in this page.



**VoIP/PSTN Gateways**

Create ports

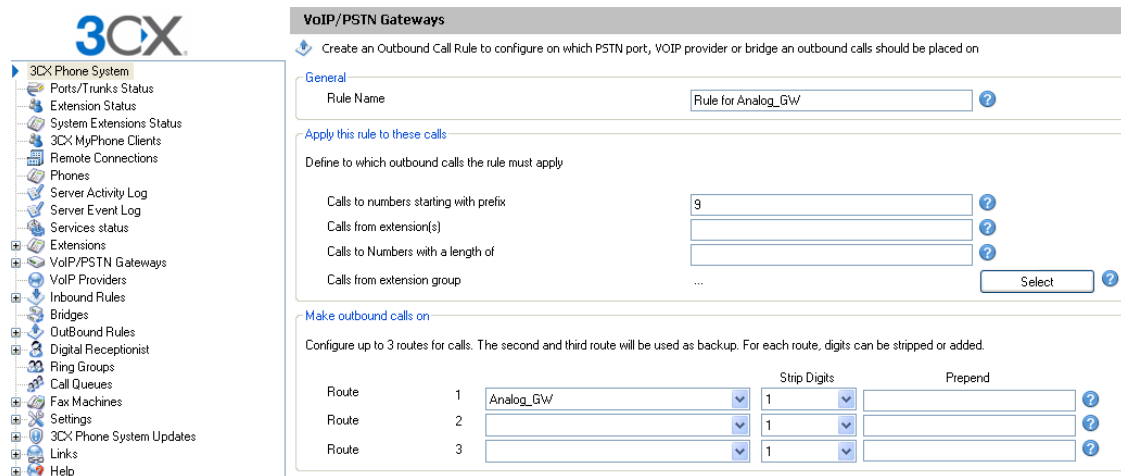
The following ports will be created in the "Create Ports" screen. You can edit the Port identification and authentication settings before they are created. Note that the Port identification purposes, and the internal line number is used by 3CX Phone System to address the line connected to the port on the VOIP Gateway. Therefore the Internal Line should be different from the extension number range. You can configure to which extension incoming calls should be routed based on whether they are inside or outside of route).

Remove selected	Virtual extension	Authentication ID	Authentication Password	Channels	Port Identification	Inbound Route Day	In
<input type="checkbox"/>	10005	10005	b9stuxq	1	10005	100	10

< Back

4) Click next and it will prompt you to create outbound rules.

In this example we have given "9" as a prefix & stripping Digit "1"



**VoIP/PSTN Gateways**

Create an Outbound Call Rule to configure on which PSTN port, VOIP provider or bridge an outbound calls should be placed on

**General**

Rule Name: Rule for Analog\_GW

**Apply this rule to these calls**

Define to which outbound calls the rule must apply

Calls to numbers starting with prefix: 9

Calls from extension(s):

Calls to Numbers with a length of:

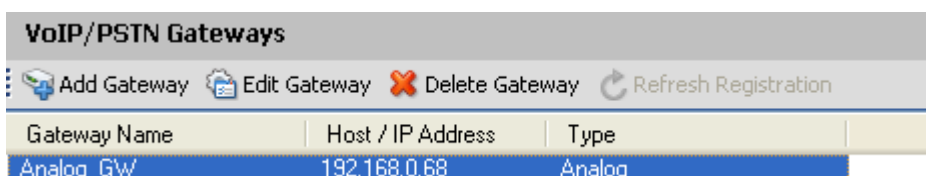
Calls from extension group: ...

**Make outbound calls on**

Configure up to 3 routes for calls. The second and third route will be used as backup. For each route, digits can be stripped or added.

Route	Strip Digits	Prepend
Route 1: Analog_GW	1	
Route 2:	1	
Route 3:	1	

5) Go to VoIP/PSTN gateways and Select and Edit the gateway



**VoIP/PSTN Gateways**

Add Gateway Edit Gateway Delete Gateway Refresh Registration

Gateway Name	Host / IP Address	Type
Analog_GW	192.168.0.68	Analog

6) Click on Edit gateway and Go to Inbound parameters.

Make the Following Call source Identification:

SIP Field: "Contact: Host Part"

Variable: "Custom IP Range"

Custom Value: Enter the Gateway IP Address (Analog card IP)

(Eg: 192.168.0.68)

**Edit Gateway**

Edit Gateway settings and click OK or Apply to save changes.

General | Advanced | Outbound Parameters | **Inbound Parameters** | DID

**Call Source Identification**

The source of incoming calls must be identified. Configure how 3CX Phone System should identify calls from this gateway.

Matching Strategy: Match All Fields

SIP Field	Variable	Custom Value
Contact : Host Part	Custom IP Range	192.168.0.68

Buttons: Add/Update, Delete, Clear Selection

SIP Field	Variable	Custom Value

Click Add/Update.

**Edit Gateway**

Edit Gateway settings and click OK or Apply to save changes.

General | Advanced | Outbound Parameters | **Inbound Parameters** | DID

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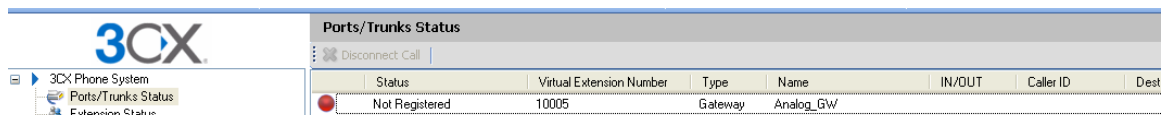
SIP Field	Variable	Custom Value
Contact : Host Part	Custom IP Range	192.168.0.68

Buttons: Add/Update, Delete, Clear Selection

SIP Field	Variable	Custom Value
Contact : Host Part	Custom IP Range	192.168.0.68

Click Apply and OK.

7) Click finish and Go to Port/Trunks Status



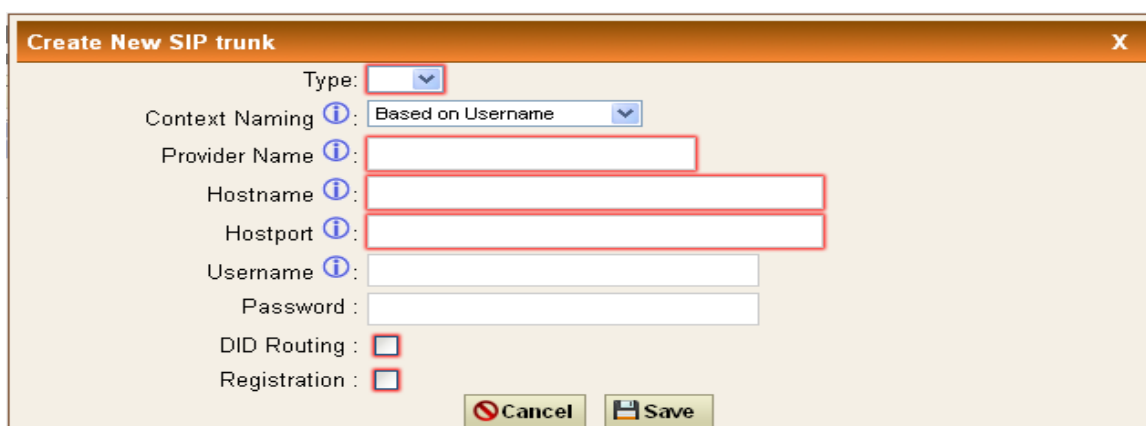
Status	Virtual Extension Number	Type	Name	IN/DUT	Caller ID	Dest
Not Registered	10005	Gateway	Analog_GW			

8) Double click on the 10005 and note down the username and password details, which need to be configured in Analog gateway as a SIP trunk.

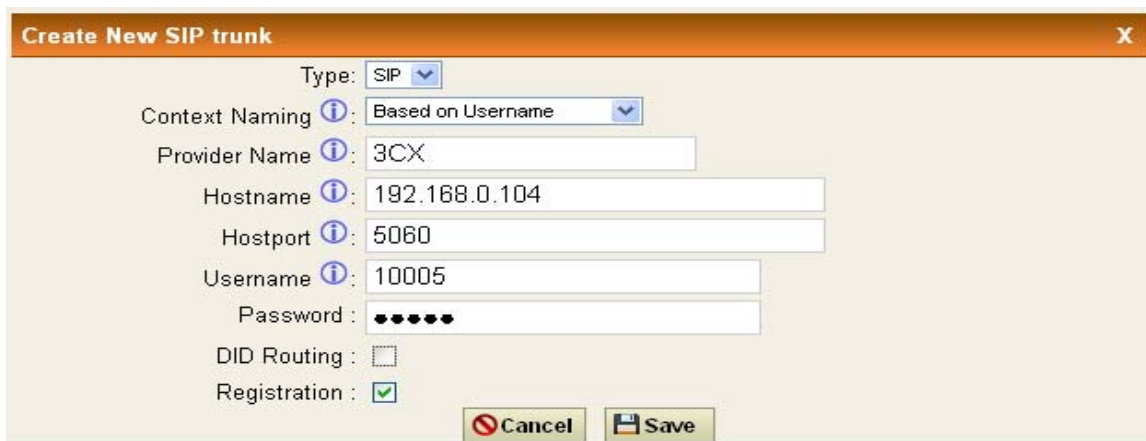
## 2. Analog Card configuration

For Analog card installation, refer quick installation guide:

- 1) Open GUI of the analog gateway and Go to Trunks (Analog&SIP) and Click on VOIP Trunks and Create New SIP trunk.



- 2) Select Type SIP and enter all the details as shown below.  
In this example, the IP address of 3CX IPPBX is 192.168.0.104



Note: Username and Password should be the same as provided in 3CX trunk Configuration.

If you want DID routing, you can check the DID Routing Check Box. All the calls coming inside the gateway through this 3CX trunk will go to DID routing table.

- 3) Click SAVE and APPLY CHANGES. You can see the registered Status in the System Status page.

- 4) Create Outgoing Calling Rule for the gateway to reach the 3CX PBX and add it to Dial Plan.



**Edit Calling Rule**

Calling Rule Name : OUT

Pattern : \_9X.

Caller ID :

Send to Local Destination

Destination :

Send this call through trunk:

Use Trunk : 3CX

Strip : 1 digits from front

and Prepend these digits : before dialing

using this filter: :

Use FailOver Trunk :

fail over Trunk :

Strip : digits from front

and Prepend these digits : before dialing

using this filter: :

Cancel Save



**Edit DialPlan**

DialPlan Name: DialPlan1

Include Local Contexts:  default  sayip

Include Outgoing Calling Rules:  OUT

Cancel Save

- 5) Creating Incoming Calling Rules in Analog gateway. Go to Incoming calling rules and Create New incoming Calling Rule



**New Incoming Rule**

Trunk : 3CX

Time Interval : None (no Time Intervals matched)

Pattern : \_X.

Destination : User Extension -- 1000

Cancel Update



Click Update and Apply Changes. All the calls are coming from 3CX PBX to gateway will land on extension 1000.

Thank you