

Secured Relay Output Using I/O Ports

Use the Xorcom Output Ports to Perform Operations Remotely, Yet Securely

Overview

Every member of Xorcom's [Astribank](#), [CompletePBX](#), and [IP-PBX](#) line of products that has an FXS module at the leftmost position includes two auxiliary output ports and four auxiliary input ports. These features open up a whole world of exciting applications for the Asterisk¹ IP-PBX.



Input/Output auxiliary ports

This white paper will demonstrate advanced ways to use the Xorcom device's relay outputs feature.

Powering the IP-PBX Off/On Remotely

Let's assume that you want to power off a server (the IP-PBX), and then power it on remotely. You want this operation to be secure, and to eliminate the possibility of human error. Once you have programmed the Xorcom unit, the scenario will transpire as follows:

1. Dial in to a specific number (the number can be either an Asterisk extension or an external PSTN line connected to the Asterisk server).
2. When your Caller ID is confirmed (it is checked against a pre-programmed list) you'll receive the following message: "Please enter your PIN". *Note: If the Caller ID is not confirmed, the call (in this example) is assumed to be an incoming fax call, and the call is routed to the fax machine.*
3. After you enter the PIN and it is confirmed, you'll receive the following message: "Please dial 1 to restart the mail server, or dial 2 to restart the alarm system".
4. Dialing the appropriate number will disconnect the targeted server from the main supply for 5 seconds, and then reconnect it.

Code Example

Note: The following example uses internal extensions rather than an external PSTN line. The same method can be used with external PSTN lines.

```
; For Caller ID 100 the PIN number is 123
exten => valid-100,1,Authenticate(123)
; For Caller ID 101 the PIN number is 456
exten => valid-101,1,Authenticate(456)
; For Caller ID 102 the PIN number is 789
exten => valid-102,1,Authenticate(789)
; For Caller ID 103 the PIN number is 012
exten => valid-103,1,Authenticate(012)
; If the call passes the authentication stage
; go to the action context [restart-service]
exten => _valid-.,2,goto(restart-service,s,1)
; If Caller ID is not recognized, dial the FAX machine
exten => i,1,Dial(FAX_EXTEN)
exten => i,2,Hangup()

[restart-service]
; Play the menu message: 1 for mail server restart
; 2 for alarm system restart
exten => s,1,Background(menu-message)
; The user chose to open the first relay
; Dial the first relay, wait 5 seconds and hangup
exten => 1,n,Dial(ZAP/9,5)
exten => 1,n,Hangup()
; The user chose to open the second relay
; Dial the second relay, wait 5 seconds and hang-up
exten => 2,n,Dial(ZAP/10,5)
; The user pressed an invalid number
; Send user back to menu for another try
exten => i,1,Playback(error-number)
exten => i,n,goto(s,1)
; In the event of a time out the channel terminates
exten => t,1,Hangup()
```

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