

How to configure the FXS PLAR in the IMACS

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Scope

This document pertains to following products: IMACS 600, 800 and 900.

Introduction

This document is a guide on how to configure the FXS PLAR in IMACS. The PLAR (Private Line Automatic Ringdown) is one of the mode options of FXS (Foreign Exchange Station). The PLAR provides point-to-point un-switched connections between two telephone sets. This configuration is usually not attached to any switch or exchange; rather it provides a "hot line" between two locations. The PLAR need be configured (identically) at both ends. So one side picks up the phone, another end automatically rings, without dialing any digits.

Requirements

Hardware:

- Ring generator is required at both IMACS.
- FXS cards are needed at both IMACS.
- A private between two IMACS.

Software:

- VT-100 terminal software (such as Windows HyperTerminal).

Configuration Steps

1. Configuring the FXS PLAR

Note: The configuration is identical on both side IMACS.

- 1a.** From the IMACS main menu, move the cursor to the proper FXS (2w*8) card, hit **Enter**.
- 1b.** Set STATE to **ACTV**.
- 1c.** Set WAN/SERV to the proper source. For example, if the source is from WAN1-1, set WAN/SERV to **W1-1**.

- 1d. Set TS (time slot) of the channel. For example, if the channel is WAN1-1, time slot 10, set TS to **10**.
- 1e. Set MODE to **PLAR**.
- 1f. Choose one PLAR TYPE you prefer. The default is **d3-m1**, which is most commonly used. It doesn't matter which type you choose, as long as both side IMACS have the same type configured.

unknown		W3/U7	FXS	ZWx8-6	Rev	CO-0	Ser	23409	07-11-30 00:47
STATE	actv	2	3	4	5	6	7	8	
WAN/SRV	w1-1	w1-2	none	none	none	none	none	none	
TS	10	22	n/a	n/a	n/a	n/a	n/a	n/a	
MODE	plar	fxs	fxs	fxs	fxs	fxs	fxs	fxs	
TYPE	d3-m1	loop	loop	loop	loop	loop	loop	loop	
Rx TLP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Tx TLP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
CODING	u-law	u-law	n/a	n/a	n/a	n/a	n/a	n/a	
TC CGA	idle	idle	idle	idle	idle	idle	idle	idle	
LB	off	off	off	off	off	off	off	off	
PATTRN	none	none	none	none	none	none	none	none	
HYBRID	set1	set1	set1	set1	set1	set1	set1	set1	
RINGBK	off	off	off	off	off	off	off	off	
SIG CONV	off	off	n/a	n/a	n/a	n/a	n/a	n/a	
RATE	64K	64K	64K	64K	64K	64K	64K	64K	
ADPCM	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
ISDN CON	off	off	off	off	off	off	off	off	

Save | Undo | Refresh | Copy | Test | Dial | Main

2. Testing the PLAR

Note: You should tell if the PLAR works if you hear the remote phone ringing. If you can't hear the remote phone or the phone does not ring, the following test procedures may help find the problem.

- 1a. From the FXS configuration screen, press **T** to Test window.
- 1b. Monitor the **Tx ABCD** and **Rx ABCD** bits. The tables below describe the call processing states for two different types of PLAR and the proper signaling bits respectively.

PLAR Type D3 Call Flow:

State	Tx AB	Rx AB
IDLE	00	00
One side off hook	11	00
Other side answers	11	11

PLAR Type D4 Call Flow:

State	Tx AB	Rx AB
IDLE	11	11
One side off hook	00	11
Other side answers	00	00

UNKNOWN		M3/U7	FXS	ZWx8-6	Rev C0-0	Ser 23409	07-11-30 01:42
SIG MON = OFF							
TEST	off	off	n/a	n/a	n/a	n/a	n/a
Tx ABCD	mon	mon	mon	mon	mon	mon	mon
Rx ABCD	mon	mon	mon	mon	mon	mon	mon
T-R-CNTL	mon	mon	mon	mon	mon	mon	mon
TO USER	n/a	n/a	n/a	n/a	n/a	n/a	n/a
TO NTWK	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Tx ABCD	0000	0101	n/a	n/a	n/a	n/a	n/a
Rx ABCD	1111	1111	n/a	n/a	n/a	n/a	n/a
T-R-CNTL	RbTg	RbTg	RbTo	RbTo	RbTo	RbTo	RbTo
T-R-STAT	off	off	off	off	off	off	off
MODE	plar	fxs	fxs	fxs	fxs	fxs	fxs
TYPE	d3-m1	loop	loop	loop	loop	loop	loop
STATUS	call	idle	noWAN	noWAN	noWAN	noWAN	noWAN

Save | Undo | Refresh | Main | sig mon

Troubleshooting

Problem:

I pick up the phone, but don't hear anything.

Answer:

- If you don't even hear the talk battery, check if the ring generator is plugged in.
- Make sure the configurations at both ends are identical.
- Make sure you are using the same WAN and same channel at both ends.
- Monitor the Tx and Rx bits in the test screen to find which side does not transmit or receive properly.