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ADTRAN Support Community › Documentation › Total Access  
› Total Access 900/900e Series › Total Access 900/900e Series  
› Configuring TA900 Series FXO ports

## Configuring TA900 Series FXO ports

The Total Access 900 family of products has available FXO “trunk” ports, either in the form of a built-in jack on the TA900E series, or an optional 8-port daughtercard. The TA900E series provides this FXO port via an RJ-11 jack on the back of the chassis, referred to as **interface fxo 0/0**. An 8-port daughtercard has FXO ports existing on the last 8 analog pairs of the Amphenol connector, referred to as **interface fxo 1/1** through **1/8**. In other words, a TA924 ordered with a 16FXS + 8FXO option has **FXS stations on pairs 1-16 and FXO trunks on pairs 17-24**.

These FXO ports provide additional flexibility in the form of emergency 911 calling, local POTS survivability in the event of a SIP network failure, or DPT trunking via analog pairs or PBX DID interfaces (sometimes referred to as loop reverse-battery wink with DNIS). Please note that the TA900 was designed for VoIP via SIP-based applications. While the FXO ports can provide survivability, delay or hybrid circuitry in traditional PSTN methods (analog jacks or voice T1 lines) can result in persistent echo problems. Therefore, FXO ports should not be deployed as the primary external interface.

Unlike FXS voice users, FXO ports are external interfaces configured as **voice trunks** (shown in the config below as trunk T09). This trunk can be a traditional POTS loop-start or ground-start interface with the syntax: **voice trunk Txx type analog supervision [loop-start | ground-start]** or DID/DPT interfaces (from a telco or to a PBX) configured as: **voice trunk Txx type analog supervision dpt**

The trunk is then given analog interfaces to use. For the TA900E's built-in port, **connect fxo 0/0** is all that is required. Create a separate **voice trunk** for each FXO interface that is being used.

This trunk is then tied to a **voice grouped-trunk** that defines the numbers to be routed out of this interface. In

[↑ Top](#)

the sample below, **accept 911** is added to ensure emergency calling out a PSTN jack. Additionally, a wildcard number with a higher cost (**accept \$ cost 10**) is added to ensure call capability if the SIP network is down.

For DPT/DID function to a PBX, any single phone number or range of numbers can be configured as the **accept** list to respond to any PSTN-assigned digit pattern.

Lastly, since loopstart interfaces do not provide DNIS digits on inbound calls, a FXO port connected to a POTS jack will have no criteria by which to accept the inbound call. In some cases inbound calls are desired, typically again for survivability. A **trunk-number** command can be added to allow another station to receive this call. This number can be a voice user or accept number configured elsewhere in the voice configuration. In this example, if a call is received, it will ring extension 8000 already configured.

## Commented Config:

!

! In this example, 10.1.4.5 is the sip server and 10.1.4.6 is the unit in front of the 900 performing sip proxy.

```
voice trunk T01 type sip
  description "SIP server"
  sip-server primary 10.1.4.5
  registrar primary 10.1.4.5
  outbound-proxy primary 10.1.4.6
  no reject-external
```

!

```
voice trunk T09 type analog supervision loop-start
  description "POTS port, inbound calls ring to ext. 8000"
  blind-dial
  trunk-number 8000
  connect fxo 0/0
  no reject-external
```

!

!

```
voice grouped-trunk SIP
  description "SIP provider"
  trunk T01
  accept $ cost 0
```

!

```
voice grouped-trunk ANALOG
  description "911 and POTS survivability"
  trunk T09
  accept 911 cost 0
  accept $ cost 10
```

!

!

```
voice user 8000
  description "front desk phone"
```

[↑](#) Top

```
connect fxs 0/1
sip-identity 2565558000 T01 register auth-name "user" password "password"
!
!
ip sip
!
```

1991

900 900e example\_configuration fxo ta ta\_900 ta\_900e total\_access  
total\_access\_900 total\_access\_900e



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