



# Echo Cancellation for Wireline Networks

## Ditech Platform

Ditech's HEC solution for wireline networks is available on the following platforms:



**BVP Flex f100**  
OC-3/DS-3/STS-1/STM-1



**Quad 2 E1 or Quad 2 T1  
in Carrier Shelf**

Ditech Networks' Hybrid Echo Cancellation (HEC) solutions lead the industry with the longest echo tail delay and a selection of voice quality features that include automatic level control, background noise reduction, and acoustic echo control.

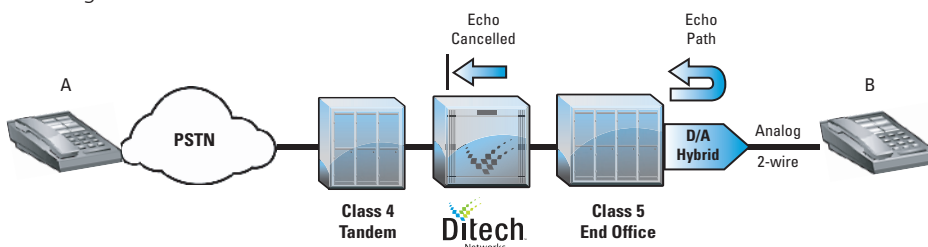
Hybrid echo is present due to the digital-to-analog conversion at the 4-wire to 2-wire hybrid. Switching, signal processing, and propagation delay all contribute to end-to-end signal delay, which exacerbates the noticeability of echo to the user. In addition, variable call routing paths can make delay longer and more unpredictable. Switch-integrated hybrid echo cancellation solutions can consume switch ports, and/or the echo canceller tail delay may be inadequate.

### The Solution

Ditech offers both narrowband and broadband platforms that include the following features:

- Industry's longest dynamic echo cancellation – up to 192 ms tail – ensuring consistently clear, echo-free calls, even in the face of network migration of TDM to VoIP

- Fast, stable convergence of less than 50 ms, with 30 dB or better ERL+ERLE
- Industry-leading performance cancels echo with ERL up to 0 dB; >35 dB ERLE (with 6 dB ERL) at -10 dBm0 input
- G.164, G.165, and G.168-2002 compliance
- Low per-channel power consumption reduces cooling and power costs
- High density saves valuable floor space
- Remote access and provisioning with Ditech's easy-to-use element management systems



### Ditech's HEC Solution for Wireline Networks

**Ditech Networks**  
825 East Middlefield Road  
Mountain View, CA 94043  
USA

800 234 0884 toll free  
800 770 0117 support  
650 623 1300 direct  
650 564 9599 fax

[ditech@ditechnetworks.com](mailto:ditech@ditechnetworks.com)  
[www.ditechnetworks.com](http://www.ditechnetworks.com)

**For HEC with an expanded suite of sophisticated voice enhancement features, Ditech recommends its VQA™ solutions.**

**Contact your local sales representative or Ditech's headquarters at the phone number and address below for more information.**