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AppleTalk Remote Access: V.42bis Data Compression

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Revised:        5/21/92
Security:       Everyone
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Article Created: 18 May 1992
Article Last Reviewed:
Article Last Updated:

TOPIC ---

I heard that using AppleTalk Remote Access uses software to turn off the
V.42 compression built into some modems. Do you know if this is the case?
If it is, is there some way to prevent it?

DISCUSSION --

Here are a few terms clarified for this discussion:

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   MNP Level 4 = Error Correction
   MNP Level 5 = Data Compression (2:1)

   v.42 = Error Correction
   v.42bis = Data Compression (4:1)

   v.32 = 9600 baud
   v.32bis = 14.4K baud
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AppleTalk Remote Access (ARA) provides MNP Level 4 error correction and
v.42bis data compression in software. There's no way to disable these
features in ARA. ARA doesn't do MNP Level 5 data compression nor v.42
error correction.

The main reason ARA does MNP Level 4 error correction and v.42bis data
compression in software and inside the Macintosh is for reliability. The
Macintosh serial connection isn't nearly as reliable at 57.6K baud as it is
at 9600 or 19.2K baud. If ARA were to use the v.42bis ability of a 9600
baud modem, the connection between the Macintosh and the modem would have
to be 57.6K baud for maximum performance. By doing the compression and
decompression in the Macintosh via software, the connection between the

Macintosh and the modem need only be at 9600 baud for v.32 modems. For
v.32bis modems (14,400 baud) the connection should be 19.2K baud.

ARA also uses a proprietary technique called "Smart Buffering" that is only
possible if the error correction and data compression are done in software.
Due to the more reliable serial connection and the "Smart Buffering," ARA
provides superior performance using software-based error correction and
data compression.

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Tech Info Library Article Number:10224