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--FEATURE ARTICLES AND REVIEWS-

 TAPPING COMPUTER DATA IS EASY,
 AND CLEARER THAN PHONE CALLS !

    BY RIC BLACKMON, SYSOP

FOR SEVERAL YEARS, I ACCEPTED
CERTAIN BITS OF MISINFORMATION
AS TECHNICALLY ACCURATE, AND
DIDN'T PROPERLY PURSUE THE
MATTER. SEVERAL FOOLS GAVE ME
FOOLISH INFORMATION, SUCH AS:
A TAP INTERRUPTS COMPUTER DATA
TRANSMISSIONS; DATA COULD BE
PICKED UP AS RF EMANATIONS BUT
IT WAS A MASS OF UNINTELLIGIBLE
SIGNAL CAUSED BY DATA MOVING
BETWEEN REGISTERS; ONE HAD TO
BE IN 'SYNC' WITH ANY SENDING
COMPUTER; DATA COULDN'T BE READ
UNLESS YOU HAD A DIRECT MATCH
IN SPEED, PARITY & BIT PATTERN;
AND ONLY A COMPUTER OF THE SAME
MAKE AND MODEL COULD READ THE
SENDING COMPUTER. THIS IS ALL
PLAIN SWILL. IT IS IN FACT, AN
EASIER CHORE TO TAP A COMPUTER
THAN A TELEPHONE. THE TECHNIQUE
AND THE EQUIPMENT IS ALMOST THE
SAME, BUT THE COMPUTER LINE
WILL BE MORE ACCURATE (THE TWO
COMPUTERS INVOLVED, HAVE ERROR
CORRECTING PROCEDURES) AND
CLEARER (DIGITAL TRANSMISSIONS
HAVE MORE DISTINCT SIGNALS THAN
ANALOG TRANSMISSIONS).

FIRST, RECOGNIZE THAT NEARLY
ALL DATA TRANSMISSIONS ARE SENT
IN CLEARTEXT ASCII SIGNALS. THE
LINES CARRYING OTHER BIT-GROUPS
OR ENCYPHERED TEXTS ARE RARE.

SECOND, THE SIGNAL APPEARS ON
GREEN AND RED (WIRES) OF THE
PHONE LINE ('TIP' AND 'RING').
THE DATA IS MOST LIKELY ASYSCH-
RONOUS SERIAL DATA MOVING AT
300 BAUD. NOW THAT 1200 BAUD
IS BECOMING MORE CHIC, YOU CAN
EXPECT TO FIND A GROWING USE OF
THE FASTER TRANSMISSION RATE.
FINALLY, YOU DON'T NEED TO
WORRY ABOUT THE PROTOCOL OR
EVEN THE BAUD RATE(SPEED) UNTIL
AFTER A TAPED COPY OF A TRANS-
MISSION IS OBTAINED.

IN A SIMPLE EXPERIMENT, A TAPED
COPY OF A DATA TRANSMISSION WAS
MADE WITH THE CHEAPEST OF TAPE
RECORDERS, TAPPING THE GREEN
AND RED LINES BEYOND THE MODEM.
THE RECORDING WAS THEN PLAYED
INTO A MODEM AS THOUGH IT WERE
AN ORIGINAL TRANSMISSION. AT
THAT POINT, HAD IT BEEN NECESS-
ARY, THE PROTOCOL SETTINGS ON
RECEIVING TERMINAL COULD HAVE
BEEN CHANGED TO MATCH THE TAPE.
NO ADJUSTMENTS WERE NECESSARY
AND A NICE, CLEAR ERROR-FREE
DOCUMENT WAS RECEIVED ON THE
ILLICIT VIDEO SCREEN AND A NEAT
HARD-COPY OF THE DOCUMENT CAME
OFF THE PRINTER. THE MESSAGE
WAS INDEED CAPTURED, BUT HAD IT
BEEN AN INTERCEPTION INSTEAD OF
A SIMPLE MONITORING, IT COULD
HAVE BEEN ALTERED WITH A SIMPLE
WORD PROCESSOR PROGRAM, TO SUIT
ANY PURPOSE, AND PLACED BACK ON
THE WIRE.

WERE I TO HAVE AN INTEREST IN
INFORMATION ORIGINATING FROM A
PARTICULAR COMPANY, AGENCY, OR
OFFICE, I THINK THAT I WOULD
FIND IT FAR MORE PRODUCTIVE TO
TAP A DATA TRANSMISSION THAN TO
TAP A VOICE TRANSMISSION, AND

EVEN MORE REWARDING THAN
GETTING HARD-COPY DOCUMENTS.

*SIGNIFICANT & IMPORTANT INFOR-
MATION IS MORE CONCENTRATED IN
A DATA TRANSMISSION.
*SIGNIFICANT & IMPORTANT INFOR-
MATION IS MORE EASILY LOCATED
IN DATA TRANSMISSIONS THAN IN
MASSES OF FILES OR PHONE CALLS.
*TRANSMITTED DATA IS PRESUMED
TRUE, AND WHEN ALTERATION IS
DISCOVERED, ITS READILY BLAMED
ON THE EQUIPMENT.
*THE LAWS CONCERNING TAPS ON
UNCLASSIFIED AND NON-FINANCIAL
COMPUTER DATA ARE EITHER QUITE
LACKING OR ABJECTLY STUPID.

THE POINT OF ALL THIS IS THAT
THE PRUDENT MANAGER REALLY
OUGHT TO ENCRYPT ALL DATA
TRANSMISSIONS. ENCRYPTION
PACKAGES ARE CHEAP (A 'DES'
PROGRAM IS NOW PRICED AT $30)
AND ARE EASY TO USE.

YOUR COMMENTS AND SUGGESTIONS
ARE ALWAYS WELCOME. LEAVE A
NOTE FOR THE SYSOP WHEN SIGNING
OFF AND LET US KNOW WHAT YOU
THINK ABOUT THESE ARTICLES AND
REVIEWS. PLEASE FEEL ENCOURAGED
TO SUBMIT MATERIALS WHICH YOU
HAVE PREPARED. THANK YOU

FUNCTIONS-> A,B,C,D,E,F,G,H,I,J,K,L,M,N,O,P,R,S,T,U,W,X,Y,Z,?

Uploaded to P-80 by Sally Ride along with
the previous file by the Marauder on RSTS/E
volume 1. There are 3 more volumes available
on RSTS. This file is from the OPEN BBS.
A system for Security professionals, well it
used to be a system, seems it kept crashing,

over and over, oops!
Sally Ride:::Space Cadet