## **Expert Witness Coversheet**

Court:	United States District Court for the District of Colorado
Case Name:	Broadcast Innovation, LLC v. Echostar Communications Corp, Hughes Electronics Corp, Directv, Thomson Multimedia, Dotcast, Pegasus Satellite Television Inc.
Docket Number:	01-WY-2201 AJ
Docket Line Number: 159	
EXPERT WITNESS DOCUMENT:	
x	Expert transcript (ET) Expert deposition (ED) Expert report (ER) Partial expert testimony (EP)



## IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLORADO

No. 01-WY-2201 AJ (BNB)

BROADCAST INNOVATION, L.L.C.,

Plaintiff,

VS.

ECHOSTAR COMMUNICATIONS CORPORATION, HUGHES ELECTRONICS CORPORATION, DIRECTV, INC., THOMSON MULTIMEDIA, INC., DOTCAST, INC., PEGASUS SATELLITE TELEVISION, INC.,

Defendants.

#### EXPERT DECLARATION OF ANTHONY J. WECHSELBERGER

IN SUPPORT OF DEFENDANTS DIRECTV, INC., HUGHES ELECTRONICS CORPORATION AND THOMSON MULTIMEDIA, INC.'S PRINCIPAL OPENING BRIEF ON CLAIM CONSTRUCTION





I, Anthony J. Wechselberger, depose and declare as follows:

I have been retained by Defendants, Hughes Electronics Corp., DirecTV, Inc., and Thomson Multimedia, Inc. (collectively, "Defendants") to provide expert opinions in connection with the construction of Claims 9-11 of U.S. Patent No. 4,993,066 ("the '066 Patent"). The following sets forth my qualifications, opinions, and the bases for my opinions, in addition to my personal experience. I have also provided a list of the materials I have considered in preparing this declaration, my opinions concerning the subject matter of the invention, and the compensation I receive for my work in this matter.

## **QUALIFICATIONS**

- 2. I am currently the President of Entropy Management Solutions ("EMS"), a position I have held since I founded the company in 1999. In this capacity, I perform consulting services related to commercial and consumer broadband technology, product and systems development. My focus is on broadband/multimedia product and networking solutions relating to content distribution and security systems for the Internet, satellite, cable and wireless/broadcast. This includes control and conditional access technology for pay television ("TV") systems, which is the general subject matter of the '066 Patent. A copy of my curriculum vitae is attached hereto as Exhibit 1.
- 3. My educational background includes Bachelors and Masters degrees in Electrical Engineering, received at the University of Arizona in 1974 and San Diego State University in 1979, respectively, and completion of the Executive Program for Scientists and Engineers at the University of California, San Diego in 1984.
- 4. I have over twenty-eight years of high technology work experience in military, commercial and consumer communications systems and networks, and twenty years in



leadership and executive positions (Engineering, Operations, Sales & Marketing and Product Management) at leading companies in those fields, such as TV/COM International, Inc. (from 1990-1998) and Oak Communications, Inc. (from 1982-1990). During that time, I published or presented a number of articles and papers related to the industry's transition from analog to digital content creation, transmission and consumption in various media arenas (e.g., cable, satellite, broadcast, and the cinema industry), and security, "command and control" and "conditional access" technologies (concepts that I will discuss in more detail below). More specifically, my major area of focus over the years has been the application of signal security technologies to analog and digital TV distribution systems. I am also a named inventor on two issued patents, and currently have three patent applications pending, that are related to such technology.

- 5. As a result of my extensive experience and work in this industry, I also have personal knowledge concerning the technologies and activities of other companies that develop or utilize products associated with the transmission/reception of scrambled TV signals. My familiarity with such companies dates from the early 1980s through the present, and includes security equipment suppliers such as General Instruments (now Motorola), Scientific Atlanta, Zenith, Pioneer, Sony, Viaccess, SECA and Irdeto Access. My previous employers, Oak Communications, Inc. and TV/COM International, Inc., were also major players in this area.
- 6. I have never testified in court as an expert witness, although I have worked as an independent expert and/or technical advisor, and have been deposed as an expert witness in that capacity. My company, Entropy, is being paid by Defendants an hourly fee of \$225/hour, plus any out-of-pocket expenses, for my study and testimony. This fee follows the usual and customary rate Entropy charges for such services (which may vary from time to time). A list of

all publications authored by me within the past ten years and of cases in which I have testified as an expert by deposition within the preceding four years, is attached hereto as Exhibit 2.

- 7. I have carefully reviewed the '066 Patent, including the claims, specification and prosecution history (both the original prosecution and the reexamination), as well as the prior art cited in the prosecution history. I have also considered my personal knowledge and experiences in areas that relate to the particular issues of this case.
- 8. The '066 Patent relates to systems for "controlling the distribution of pay-per-access information services" ('066 Patent, 1:5-7) (Exhibit 3), and in particular pay TV systems. I was working in this field at the time the '066 Patent was filed in February 1987. Those knowledgeable of such systems and technologies of this time would have technical experience or training (equivalent to a Bachelors in Electrical Engineering or Computer Science Engineering) in broadband or broadcast communications systems (e.g. cable, satellite or over-the-air transmission), and the types of security and/or conditional access solutions applied thereto.

## BACKGROUND OF PAY TV SYSTEMS

9. The first "premium" or "pay TV" systems, where the delivery and consumption of TV programming is conditional on a consumer paying a fee, were in use commercially by the early 1970s. Early pay TV networks were mostly local single channel operations or "community antenna TV" ("CATV") distribution networks for areas where local reception of off-air programming was unavailable. The large cable operations and pay networks that we know today did not take off until the availability and widespread use of satellites for national TV distribution (led by HBO) in the early 1970s. By the late 1970s, pay TV was common for both cable and terrestrial broadcast (i.e., over-the-air) delivery systems and, by the mid-1980s, it was also available for consumers via satellite.



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