Mr. Lipoff is president of IP Action Partners Inc, a small business consultancy with a practice in TIME (telecommunications, information technology, media, electronics, and ebusiness) industries and technologies. He draws upon his 30+ years of experience in a wide variety of technologies and industries to assist clients with knowledge based consulting services involving complex business decisions. Clients turn to him for his unique ability to combine a deep understanding of industry dynamics with his equal depth in the underlying technologies. Because he is at home in either the board room or the laboratory, the services he provides range from top line revenue enhancement to operations and capital efficiency improvement working across all levels of the client organization.

Mr. Lipoff was employed 25 years by Arthur D Little, Inc (ADL) as VP and Director of Communications, Information Technology, and Electronics (CIE); 4 years by Bell & Howell Communications Company as a Section Manager, and 3 years by Motorola's Communications Division as a Project Engineer. At ADL he was responsible for the firm's global CIE practice. At both Bell & Howell and Motorola, he had project design responsibility for wireless communications and paging products.

Stuart Lipoff has Bachelor's Degrees in Electrical Engineering and in Engineering Physics, both from Lehigh University. He also has received a Masters Degree in Electrical Engineering from Northeastern University, and a MBA degree from Suffolk University.

Mr. Lipoff is a fellow of the IEEE Consumer Electronics, Communications, Computer, Circuits, and Vehicular Technology groups. He is a member of the IEEE Consumer Electronics Society National Board of Governors, and was the Boston Chapter Chairman of the IEEE Vehicular Technology Society. He served as 1996-7 President of the IEEE Consumer Electronics Society (CESoc), as Chairman of the Consumer Electronics Society Standards Committee, as Vice President of Publications, as VP of Standards and Industry Activities; and is currently the historian for The Society. He has also chaired the search committee for Sony supported Mazura Ibuka Award in consumer electronics. As Vice President and Standards Group Chairman of the Association of Computer Users, he served as the ACU representative to The ANSI X3 Standards group. For the Federal Communications Commission's Citizens advisory committee on CB radio (PURAC), he served as Chairman of the task group on user rule compliance. He has been elected to membership in the Society of Cable Television Engineers (SCTE), The Association of Computing Machinery (ACM) , and The Society of Motion Picture and Television Engineers (SMPTE).

Stuart Lipoff holds a FCC General Radiotelephone License and a Certificate in Data Processing (CDP) from the ACM supported Institute for the Certification of Computing Professionals (ICCP). He is a registered professional engineer (by examination) in The Commonwealth of Massachusetts and also in The State of Nevada.

Mr. Lipoff holds seven USA patents and has published articles in Electronics Design, Microwaves, EDN, The Proceedings of the Frequency Control Symposium, Optical Spectra, and

numerous IEEE publications. He has presented papers at many IEEE and other meetings. In the fall of 2000, he served as general program chair for The IEEE Vehicular Technology Conference on advanced wireless communications technology. He has organized sessions at The International Conference on Consumer Electronics and was the 1984 program chairman. He conducted an eight week IEEE sponsored short course on Fiber Optics Systems Design. In 1984, he was awarded IEEE's Centennial Medal and in 2000 IEEE's Millennium Metal.

He has served as member of the USA advisory board to the National Science Museum of Israel and has presented a short course on international product development strategies as a faculty member of Technion Institute of Management in Israel. He is also served as a member of the board of directors of The Massachusetts Future Problem Solving Program.

Mr Lipoff is internationally recognized as an authority and opinion leader in new economy related businesses and technology. Citations supporting his recognition can be found on his web site at http://www.lipoff.org .

Some examples of projects he has performed in the telecommunications and wireless communications sectors include:

- For Rogers Communications of Canada, he benchmarked their high speed cablemodem and video services as compared to the VDSL "FIBE25" offered by Bell Canada. This required a combination of field testing and analysis of the Bell fiber to the neighborhood architecture.

- For the National Cable Telecommunications Association (NCTA) he prepared a paper to deliver at an FCC workshop on high speed broadband services. In this paper, he provided a technical analysis of the limits of the cable industry DOCSIS architecture as compared to the wireless telephone industry DSL based systems.

- For a technical paper presented at the NCTA Cableshow, he prepared an engineering simulation and analysis of the impact of over the top voice over IP telephony services as a function of traffic load on the system.

- Leadership of the project which developed the series of DOCSIS specifications for high speed residential cable modems. The scope of work included developing a roadmap and strategic framework for evolving the business from simple high speed internet services to multimedia broadband services combining voice, data, and secure electronic content delivery. This project was performed under contract to the MCNS consortium of cable TV operators representing 85% of the subscriber base in North America and has since been adopted by the United Nations as a global telecommunications standard.

- Working with Cambridge Consultants UK Limited (a subsidiary of Arthur D Little, Inc), he contributed to the business plan that resulted in the spin out of Cambridge Silicon Radio (CSR), one of the leading semiconductor suppliers of Bluetooth technology. He continued to assist CSR with applications identification and planning while employed at ADL.

- For an advanced R&D group at Texas Instruments, he provided marketing and applications assistance that lead to TI's current TIRUS RF tag product line. The project involved a competitive review of RF tag technologies and development and evaluation of the market potential for current success models such as the Mobil Speedpass and Ford Motor AntiTheft high security key.

- Leadership of a project jointly funded by The National Association of Broadcasters and Maximum Service TV Association to analyze options to accelerate the adoption of digital TV technology by consumers. His recommendations were provided to the FCC and were the basis for the August 2002 report and order the FCC issued to mandate a roll-out schedule for digital TV receivers.

- For a manufacturer of hand-held industrial computing products, I co-developed the protocol for a wireless local area network that was the basis for the current IEEE 802.11 wireless LAN standard. Latter I worked with this same client to selected voice over internet protocol (VoIP) codecs and algorithms that support the client's current product offering cordless industrial voice telephony over a quality of service (QoS) managed wireless IP network.

- Leadership of the project that studied the technology and economics of wireless personal communications technology. The project included the selection of CDMA technologies and the development of strategies to compete with incumbent cellular carriers. This effort led to the formation of a consortium between Sprint and the cable MSOs that has evolved into the present Sprint PCS business.

- Analysis and recommendations in a study funded by CableLabs which led to today's hybrid-fiber coax architecture widely deployed worldwide for delivering broadband multimedia services to the home. The project involved developing forecasts of technology trends in parallel with projecting the business applications. Detailed proforma financial models were developed to make the cost/benefit of deploying this technology visible to the cable industry.

- For Bell South I contributed to a major operations improvement project involving developing forecasts of the future competitive environment, customer needs, a strategy to compete, and new business models. These forecasts were then applied to develop business redesign recommendations and a list of new services offerings.

- For a large multinational cellular service provider I performed a review of their capital efficiency. The project involved the collection of data from over 25 systems in 12 countries and developing capital efficiency metrics that were normalized to the specific geographic and demographic specifics of each system. The project not only provided a measure of present and historical capital efficiency but also provided a management system to be employed for the future.

- For an OEM supplier of subscriber premise telephony equipment sold in multiple countries he engaged in an operations improvement project looking at all aspects of the design, manufacturing, distribution, and support of this high volume consumer product. By means of

including unique capabilities in the design of the next generation product that allowed for automatic configuration, he was able to improve the firms performance in multiple dimensions. The new product allowed for a single universal product that reduced inventory costs, simplified distribution, and reduced order fulfillment time. A cost benefit analysis was performed to demonstrate the value of the significant investment required and showed paybacks of under 6 months.

- For a large multiclient project I led the technology analysis efforts exploring the applications fit and cost benefit analysis of electro optics technologies across a wide range of industries and applications from telecommunications to sensors. The client group included NEC, Sumitomo, CBS, Corning, Siemens, and several other firms. The work was performed in the mid 1970's just as fiber optics technology was emerging from the laboratory. During this project I developed automated system design and cost models of fiber optics telecommunications systems that allowed war-gaming the applications based on expected technology improvements and new applications demands. A byproduct of this multiclient project was the Corning/Siemens joint venture Siecor. I assisted both companies develop their joint venture agreement and strategies.

- For a second multiclient group, I studied the state-of-the-art of available LED and semiconductor laser sources in the near infrared 820 nM band. By measuring these devices and determining their contribution to distortion products, I was able to develop applications used today in the cable TV industry involving linear modulation of sources for analog cable TV in hybrid fiber coax (HFC) systems. This work was also performed in the late 1970's time frame and contributed to the first commercial HFC systems deployed in the early 1990's.

- For Magnavox Cable TV (a division of N.A. Philips) I performed comparative cost and technical analysis of fiber optics versus conventional coax systems. This analysis was followed by the development of strategies and sales support materials to pitch the new HFC systems to cable TV operators.

- For Fujikura Electric of Japan, I explored the intellectual property situation in optical communications cables, waveguides, and associated electro-optics components. During this project I met with representatives of the US Department of Commerce, Corning, and other organizations with major patent positions. I identified opportunities for licensing and joint venture.

- For AMP Electric, I evaluated an opportunity to develop and supply fiber optics connectors to the telecommunications industry. The results of this project was the launch of a variety of products targeted to short distance information technology and enterprise network connectors.

- In 1989, as the first project for the newly formed Cable Television Laboratories, I performed a major project for the cable industry to study the role for fiber optics in cable TV. The project developed alternative designs for fiber architectures and developed cost models to explore cost differences. The recommended Hybrid Fiber-Coax (HFC) systems are now being

built into today's cable systems worldwide, and the future roadmaps developed in 1989 are still the blueprints being followed today.

- In 1994 I performed additional work for The Cable Television Laboratories in which I studied the application of remote and distributed antennas supporting microcellular PCS on hybrid fiber-coax cable TV systems. A key issue explored was the requirement for the fiber optic portion of the plant to carry the PCS carriers in analog form and deal with the wide dynamic range demands for inbound signals.

- For a consortium of the major cable TV operators consisting of Comcast, Time Warner, Cox, and Rogers; I developed models for prediction of reliability of alternative HFC architectures and their suitability to provide local exchange voice services competitive with ILECs. The project required understanding the reliability specifications employed in conventional local exchange carrier telephone plant and the contributions between hardware, power, and workmenship failures. Each of three alternative fiber optic architectures for cable delivered voice telephony were studied and modeled to develop reliability predictions and recommendations were made as to which aspects of the three alternatives were the best choice for cable delivered voice telephony.

- For a consortium called Multimedia Network Cable Network Systems (MCNS) consisting of TCI, Comcast, Cox, Time-Warner, and Rogers I lead a project that developed the DOCSIS series of cable modem interface specifications suitable for use on modern hybrid fiber-coax cable TV plant. This DOCSIS specification has been adopted as an ITU international specification and is used world wide as the basis for today's commercial cable modem service over HFC cable plant.

- For the USA CIA, I performed a project to identify critical electro-optics technologies in the marketplace as well as in late stages of development. This project involved tracking the source and proliferation of these technologies within, and outside of, the United States. Of particular interest was the export of these critical technologies outside the USA and understanding how they were being exported, the planned uses, and the parties involved.

- I suppored a project for the US Office of Technology Assessment by providing analysis for the project team on the capabilities and limitations of technology in supporting the broadband telecommunications development through analysis of data communications systems and services provided over electro-optical systems.

- For the real estate management group of the Northern Indiana Public Service Company (NIPSCO), I led a project to determine market and technical feasibility of NIPSCO's using its rights-of-way to offer a fiber-based private network transmission service to the highly industrialized area of Northern Indiana. This project involved conceptual layout of the right-of-way of the new network, development of a service model, investigation of the competitive and regulatory situation, identification of likely customers, and interviews with both potential customers and potential partners to validate the market and technical assumptions.

- For Commonwealth Edison of Chicago, I contributed to a project in which a statewide, multimedia fiberoptic communications network was designed to replace the electric company's aging microwave transmission system. The new fiberoptic system was designed to support voice, customer service data terminals, SCADA, protective relaying, teleconferencing, mobile radio backbone, and computer-aided design remote access to engineering drawings. The project resulted in a systems design, an RFP procurement document, a cost justification for CECO management and the state PUC, and a time-staged implementation plan. Following this project, I participated in a follow-on project to evaluate vendor responses to the RFP. The system was built and is in operation in the Chicago Metro Area.

- For COMCAST Cablevision of Philadelphia, he assisted in the development of a family of advanced two-way, residential digital service, including development of system/service concepts and specification/selection of a range of equipment to provide this service. Key to the services was the specification of the HFC outside plant required to support the services.

- For Kansai Electric in Japan, I developed financial and operating models of a range of typical HFC based U.S. cable television operations to be used as planning tools for new systems being considered in that country.

- For the Westinghouse Teleprompter Cable Company, I studied the market for a fiberoptic based institutional data network in Pittsburg and developed the business and financial models to examine the financial attractiveness.

- For GTE Systems I prepared a presentation on developing commercial opportunities for wide-bandwidth ATM switching. The scope of applications included: metro area network LAN interconnect, broadcast studio digital video routing and switching, and distributed switching for digital wireless personal communications networks. The goal of the project was to explore commercial applications for their military systems broadband switching technology.

- I supported an assignment which prepared the specifications for a three-node, two-link communications system for Niagara Mohawk Power Corporation. Our system designs included requirements for lightwave cable, transmitters, receivers, voice channelization equipment, multiplexers, voice terminals and data modems, low-speed and high speed facsimile equipment, video conferencing cameras and monitors, plus a high-speed data interface with IBM 3030 computers. We observed tests on cable and equipment at the manufacturer's plant and approved them prior to shipment to the field site.

- I was a member of a team exploring the airport applications of fiber optics cables under a DOT project in California. The Bakersfield Airport Fiber-Optic Cable Loop is a data acquisition/power control/signal monitoring and communication system for airport control purposes. The system provides a reliable environment to collect data and send control signals to various airport facilities scattered around the perimeter of the airport. The airport facilities included air surveillance radar, radio transmitters and receivers, runway visual ranges,

equipment for instrument landing, power distribution switches, and others.. Our work included the initial feasibility study, the field requirement evaluation, the generation of the specific fiber optical loop design guide lines, the system's architectural design, the subsystem's component specifications, the special interface hardware designs, the actual field testing and debugging, and the training of field technicians.

- I supported a communications systems design project for AMTRAK. This project involved an economic and design feasibility study of a proposed $30 million communications system along its 500-mile right-of-way between Boston and Washington. The system was to carry train control data, company operational communications, point-to-point video conferencing, and cable television signals as well as voice communication. Various voice, data, and video traffic capacities were studied. We provided cost models of systems with capacities of up to 30,000 circuits between the eleven major nodes and with local distribution points along the tracks. Lightwave transmission technology was the proposed method. Our planning models took into account fiber waveguide attenuation, types of laser diode/LED transmitters and APD receivers, voice circuit channel banks, modems and repeaters. Models were developed for the costs of operation and maintenance as well as construction.

- For an investment bank, I evaluated the processes used to make optical fiber and interviewed key personnel in the borrower firm. Our report included a fiber optic market assessment for the products of this firm and a technology and assessment review to aid the bank in making a loan decision.

- I supported a project for Japan's Ministry of International Trade and Industry, in which we analyzed worldwide market opportunities in electro-optics, including optical fibers and cables, optical displays, light sources and detectors. Supporting our data base through interviews, we estimated electro-optic market volumes in the telecommunications, military, utilities, process control, local network, and medical segments of the industry. The technological trends expected in these sectors were also summarized in our report.

- For Asahi Glass, I led a project which explored the opportunities for optical media and associated components. The project explored commercial , consumer, and military applications of the technology and developed market forecasts of the expected unit volumes, timing, and performance requirements in each sector. The work included developing technology forecasts of the key components including sources, detectors, signal processing electronics, and media.

- For Dow Chemical, I led a project which attempted to value one of their new technology developments in read/write/erasable optical media. The project explored many of the same topics noted for Ashai Glass above but from the perspective of the media opportunities.

- For 3M, I participated in several projects for the group that was allocating funding to internal optical media R&D projects. My contribution included providing input on the competitive state of the art as well as inputs on the size and applications of various markets for the 3M technology.

- For DataPlay, a startup manufacturer of new consumer electronics optical media and drives, I led a project which performed a design review of the their digital rights management technology and overall security of their system. In addition to the cryptographic and electronics issues, the project required an analysis of the optical media itself and consideration of the degree of difficulty of counterfeiting or cloning the information content on the media.

- For Polaroid Corporation, I reviewing the portion of their intellectual property portfolio related to fiber optical communications systems with a view to finding opportunities to outlicense the patents to third parties. I identified a coupler with applications in passive optical networks and provided them with leads as to potential licensees.

- For Textron Systems I performed a project which codified their technology know how and intellectual property in electro optics and mapped their mainly military technology into potential highly valued commercial applications. The project identified opportunities in free-space communications as well as some unique high power solid state sources with applications in long haul and local passive optical networks.

- For the IEEE Boston Section, I organized a 12 week short course on optical communications systems and presented two of the 12 lectures.

- For Bellcore (now Telcordia division of SAIC), I evaluated the R&D portfolio of their Applied Research Group. The main components of this portfolio were DWDM technologies for long haul interLATA communications as well as optical multiplexing components for fiber-in-the-loop applications. I provided R&D planning assistance on the allocation of funding and priorities to the R&D efforts and identified opportunities for securing intellectual property rights to critical R&D efforts.

Stuart J. Lipoff
Litigation Support Projects as a Disclosed Expert
Current as of May 2025

• Provided expert report and deposition testimony as technical expert, retained by Samsung in the cases captioned below:

UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
SAMSUNG ELECTRONICS AMERICA, INC, Petitioner
vs
PARUS HOLDINGS, LLC, Patent Owner
IPR2023-00163
Patent 7,386,455
and
IPR2023-00162
Patent 6,721,705

• Provided expert report and deposition testimony as technical expert, retained by HID in the cases captioned below:

THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
ASSA ABLOY AB, ASSA ABLOY Inc., ASSA ABLOY Residential Group, Inc., August Home, Inc., HID Global Corporation, and ASSA ABLOY Global Solutions, Inc.,Petitioners,
vs
CPC Patent Technologies PTY LTD.,Patent Owner.
Case No. IPR2022-01006
Patent No. 9,665,705
and
Case IPR2022-01045
Patent 9,269,208 (Claims 1-9)
and
Case IPR2022-01089
Patent 9,269,208 (Claims 10-13)

• Provided expert report and deposition testimony as technical expert, retained by HID in the cases captioned below:

THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
ASSA ABLOY AB, ASSA ABLOY INC., ASSA ABLOY RESIDENTIAL GROUP, INC., AUGUST HOME, INC., HID GLOBAL CORPORATION, ASSA ABLOY GLOBAL SOLUTIONS, INC., Petitioner,
vs
CPC PATENT TECHNOLOGIES PTY LTD., Patent Owner.
Case IPR2022-01093 (US Patent No. 8,620,039)
and
Case IPR2022-01094 (US Patent No. 8,620,039)

• Provided expert report and deposition testimony as technical expert, retained by Google in the cases captioned below:

THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE PATENT TRIAL AND APPEAL BOARD
GOOGLE LLC, Petitioner,

v.
PARUS HOLDINGS INC., Patent Owner.
Case No. IPR2022-00358
Patent No. 7,881,941
and
Case No. IPR2022-00523
Patent No. 8,185,402

• Provided expert report and deposition testimony as technical expert, retained by Samsung in the case captioned below:

IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS, WACO DIVISION
PROXENSE, LLC, Plaintiff,
vs.
SAMSUNG ELECTRONICS, CO., LTD., and SAMSUNG ELECTRONICS AMERICA, INC.,Defendants.
Case No.6:21-cv-00210-ADA

• Provided expert report and deposition testimony as technical expert, retained by WSOU INVESTMENTS in the case captioned below:

In THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS. WACO DIVISION
WSOU INVESTMENTS, LLC D/B/A, BRAZOS LICENSING AND DEVELOPMENT,:Plaintiff,
vs. · · · :
MICROSOFT CORPORATION, Defendant
No. 6:20-CV-00464-ADA·

• Provided expert declarations and deposition testimony as a technical expert in support of IPRs before The United States Patent Office Trial and Appeal Board

Clients: 3G LICENSING S.A.-Sisvel Patent Owner
Adverse Party: DELL, INC, Petitioners

In the matter of PTAB Case No. IPR2020-1157 U.S. Patent No. 7,274,933
PTAB Case No. IPR2021-0584 U.S. Patent No. 7,551,625
PTAB Case No. IPR2020-1162 U.S. Patent No. 8,948,756
PTAB Case No. IPR2020-1158 U.S. Patent No. 7,460,868
PTAB Case No. IPR2020-1159 U.S.Patent No 7,596,375
PTAB Case No. IPR2020-1160 U.S. Patent No. 8,275,374
PTAB Case No. IPR2020-1161 U.S. Patent No. 8,472,955

• Provided expert report, deposition testimony, and testified at ITC hearing as technical expert, retained by Roku in the case captioned below:

Before The UNITED STATES INTERNATIONAL TRADE COMMISSION
CERTAIN ELECTRONIC DEVICES, INCLUDING STREAMING PLAYERS, TELEVISIONS,SET TOP BOXES, REMOTE CONTROLLERS, AND COMPONENTS THEREOF
Investigation No.337-TA-1200

• Provided expert report and deposition testimony as technical expert, retained by Sisvel International in the case captioned below:

UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF FLORIDA

Miami Division
SISVEL INTERNATIONAL S.A., 3G
LICENSING S.A., and SISVEL S.p.A.,
Plaintiffs,
v.
HMD AMERICA, INC. and
HMD GLOBAL OY,
Defendants.
Case No.: 20-22051-CIV-GAYLES

• Provided expert report and deposition testimony as technical expert, retained by Sisvel International in the case captioned below:

UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF TEXAS
SISVEL INTERNATIONAL S.A., 3G LICENSING S.A.,
Plaintiffs,
v.
ZTE (USA), INC. AND ZTE CORPORATION,
Defendants.
Civil Action No. 3:19-cv-01694-N

• Provided expert declarations and deposition testimony as a technical expert in support of an IPR before The United States Patent Office Trial and Appeal Board

Clients: GOOGLE LLC,, Petitioners
Adverse Party: PARUS HOLDINGS INC., Patent Owner.
In the matter ofPTAB Case No. IPR2022-00279 U.S. Patent No. 6,721,705

• Provided expert declarations and deposition testimony as a technical expert in support of IPRs before The United States Patent Office Trial and Appeal Board

Clients: GOOGLE LLC,SAMSUNG ELECTRONICS CO.,LTD., SAMSUNG ELECTRONICS AMERICA,INC., LG ELECTRONICS INC.,and LG ELECTRONICS U.S.A.,INC., Petitioners
Adverse Party: PARUS HOLDINGS INC., Patent Owner.
In the matter ofPTAB Case No.IPR2020-00846 U.S. Patent No.7,076,431
PTAB Case No.IPR2020-00847 U.S. Patent No.9,451,084
PTAB Case No.IPR2022-00355 U.S. Patent No.7,386,455
PTAB Case No.IPR2022-00358 U.S. Patent No. 7,881,941

• Provided expert declarations and deposition testimony as a technical expert in support of IPRs before The United States Patent Office Trial and Appeal Board

Client: GOOGLE LLC Petitioner
Adverse Party: HAMMON DEVELOPMENT INTERNATIONAL, INC. Patent owner
In the matter of: PTAB CASES IPR2020-00020 and IPR2020-00080
U.S. Patent No. 9,264,483 and U.S. Patent No. 10,264,032

• Provided expert reports and deposition testimony on invalidity and trial testimony retained by DISH Network L.L.C.and EchoStar Technologies L.L.C .as a technical expert in the case captioned below:

THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF UTAH
Case No. 2:14-cv-00191-DN
In the Matter of United States Patent Numbers 7,577,970; 7,526,784; 7,543,318; and 6,898,799
Plaintiffs: ClearPlay, Inc.,
Defendants: DISH Network L.L.C.and EchoStar Technologies L.L.C

• Provided expert declarations and deposition testimony as a technical expert in support of IPRs before The United States Patent Office Trial and Appeal Board

Client: TCT MOBILE (US)INC. & TCT MOBILE,INC.Petitioners,
Adverse Party: WIRELESS PROTOCOL INNOVATIONS,INC. Patent Owner
In the matter of U.S.Patent No.8,274,991 PTAB Case IPR2016-01494

• Provided expert report, deposition testimony, and trial testimony as a technical expert retained by Samsung in the case captioned below:

The United States International Trade Commission
Investigation No. 337-TA-1170
In the Matter of CERTAIN MOBILE DEVICES WITH MULTIFUNCTION EMULATORS
Complainants: DYNAMICS INC
Respondents: SAMSUNG ELECTRONICS CO. LTD

• Provided expert report, deposition testimony, and testified at ITC hearing as technical expert, retained by ONE WORLD in the case captioned below:

The United States International Trade Commission

Investigation No. 337-TA-1016 (Modification Proceeding)

In the Matter of–CERTAIN ACCESS CONTROL SYSTEMS AND COMPONENTS THEREOF

Complainants: THE CHAMBERLAIN GROUP, INC
Respondents: ONE WORLD TECHNOLOGIES, INC. D/B/A TECHTRONIC INDUSTRIES POWER EQUIPMENT.

• Provided hearing testimony before The U.S. Court of International Trade on behalf of ONE WORLD TECHNOLOGIES relative to U.S. PATENT NO. 7,161,319 in the matter captioned below:

Court No. 18-00200

ONE WORLD TECHNOLOGIES, INC., :Plaintiff,

v.

UNITED STATES, UNITED STATES :
DEPARTMENT OF HOMELAND SECURITY, :
UNITED STATES CUSTOMS AND BORDER :
PROTECTION, and COMMISSIONER KEVIN K. MCALEENAN, Defendants. :

• Provided declarations in support of IPRs before The United States Patent Office Trial and Appeal Board

Client: SECURUS TECHNOLOGIES, INC.
Adverse Party: GLOBAL TEL*LINK CORPORATION In the matters of: U.S. PATENT No. 9,521,250

U.S. PATENT No. 9,307,386
U.S PATENT No. 9,094,500
U.S PATENT No. 8,929,525
U.S PATENT No. 7,248,685
U.S. PATENT No. 9,509,856

• Provided declarations and deposition testimony in support of IPRs before The United States Patent Office Trial and Appeal Board

Client: SECURUS TECHNOLOGIES, INC.
Adverse Party: GLOBAL TEL*LINK CORPORATION In the matters of: U.S. PATENT No. 8,855,280 and U.S PATENT No. 8,606,229

• Provided declarations in support of an IPR before The United States Patent Office Trial and Appeal Board

Client: TCT MOBILE (US) INC. & TCT MOBILE, INC
Adverse Party: WIRELESS PROTOCOL INNOVATIONS, INC. In the matter of: U.S. PATENT NO. 9,125,051

• Provided declarations in support of a petition for petition for covered business method review before The United States Patent Office Trial and Appeal Board
Client: COMCAST CABLE COMMUNICATIONS, LLC, Petitioner
Adverse Party: PROMPTU SYSTEMS CORPORATION, Patent Owner.
In the matters of: U.S. Patent RE44,326
U.S. Patent 7,047,196

• Provided declarations and deposition testimony in support of IPRs before The United States Patent Office Trial and Appeal Board
Client: TCT MOBILE (US) INC. & TCT MOBILE, INC
Adverse Party: WIRELESS PROTOCOL INNOVATIONS, INC. In the matters of: U.S. PATENT NO. 8,565,256
U.S. PATENT NO. 8,274,991

• Provided expert report and testified at ITC hearing as technical expert, retained by ONE WORLD in the case captioned below:
The United States International Trade Commission
Investigation No. 337-TA-1016
In the Matter of–CERTAIN ACCESS CONTROL SYSTEMS AND COMPONENTS THEREOF
Complainants: THE CHAMBERLAIN GROUP, INC
Respondents: ONE WORLD TECHNOLOGIES, INC. D/B/A TECHTRONIC INDUSTRIES POWER EQUIPMENT.

• Provided declarations in support of IPRs before The United States Patent Office Trial and Appeal Board
Client: Comcast Cable Communications, LLC, Petitioner
Adverse Party: Adverse Party: OpenTV, Inc., Patent Owner
In the matters of: U.S. Patent 7,028,327
U.S. Patent 6,345,389

• Provided declarations in support of IPRs before The United States Patent Office Trial and Appeal Board
Client: ONE WORLD TECHNOLOGIES, INC. D/B/A TECHTRONIC INDUSTRIES POWER EQUIPMENT
Adverse Party: THE CHAMBERLAIN GROUP, INC In the matters of: U.S. PATENT NO. 7,224,275
U.S. PATENT NO. 7,161,319
U.S. PATENT NO. 7,339,336
U.S. PATENT NO. 7,196,611
U.S. PATENT NO. 7,635,966
U.S. PATENT NO. 6,998,977

• Provided expert reports and deposition testimony on invalidity, retained by Google as a technical expert in the case captioned below:

In The United States District Court for the District of Delaware
Civil Action No. 13-429-SLR
Plaintiffs: HBAC MATCHMAKER MEDIA,
INC Defendants: GOOGLE INC., et al
In the matter of U.S. PATENT NOS. 5,774,170 AND 6,002,393

• Provided declarations in support of IPRs before The United States Patent Office Trial and Appeal Board in the matter captioned below:

Client: GOOGLE ,INC., Petitioner,

Adverse Party: UNILOC USA,INC.and UNILOC LUXEMBOURG,S.A., Patent Owner.

In the matters of: U.S.Patent No.7,853,000
U.S.Patent No.7,804,948
U.S.Patent No.8,571,194

• Provided declarations in support of IPRs before The United States Patent Office Trial and Appeal Board

Client: LIVE PERSON, INC., PETITIONER
Adverse Party: 24/7 CUSTOMER, INC. 24/7 CUSTOMER INTERNATIONAL HOLDINGS, LTD., PATENT OWNER

In the matters of:
U.S. Patent 6,798,876
U.S. Patent 7,027,586
U.S. Patent 7,751,552
U.S. Patent 9,077,804

• Provided declarations in support of IPRs before The United States Patent Office Trial and Appeal Board

Client: DTS, Inc. and Phorus, Inc., PETITIONER
Adverse Party: Broadcom Limited and Avago Technologies General IP (Singapore) Pte. Ltd., PATENT OWNER

In the matter of: U.S. Patent 6,684,060

• Provided expert reports and deposition testimony on invalidity, retained by DirecTV as a technical expert in the case captioned below:

In The United States District Court for the District of Delaware
Civil Action No. 13-432-SLR
Plaintiffs: HBAC MATCHMAKER MEDIA,
INC Defendant : THE DIRECTV GROUP, INC.

• Provided expert report and testified at ITC hearing as technical expert, retained by Samsung in the case captioned below:

The United States International Trade Commission
Investigation No. 337-TA-882
In the Matter of CERTAIN DIGITAL MEDIA DEVICES, INCLUDING TELEVISIONS, BLU-RAY DISC PLAYERS, HOME THEATER SYSTEMS, TABLETS AND MOBILE PHONES, COMPONENTS THEREOF AND ASSOCIATED SOFTWARE
Complainants: Black Hills Media, LLC
Respondents: Samsung Electronics Co. Ltd.

• Provided expert reports and deposition testimony on invalidity and rebuttal to infringement, retained by Comcast et al as a technical expert in the case captioned below:

The United States District Court, Eastern District of Texas, Marshall Division
Civil Action No. 2:11-CV-30 (DF)
In the Matter of United States Patent Number 5,563,883
Plaintiffs: C-Cation Technologies, LLC
Defendants: Comcast Corporation, Charter Communications, Inc., cequel Communications, LLC dba Suddenlink Communications, Cable One, Inc., Almega Cable Inc., Longview Cable Television Company, Inc., and Kilgore Video, Inc

• Provided declaration in support of plaintiff Maxell, LTD's opposition to defendant's motion for judgment on the pleadings under Fed. R. Civ P. 12(c) as a technical expert in the case captioned below:

The United States District Court for the Central District of California
Case No. 2:17-cv-07534-AG-(SSx)

MAXELL, LTD., Plaintiff,
v.
FANDANGO MEDIA, LLC, Defendant.

FANDANGO MEDIA, LLC, Counter-Plaintiff,
v.
MAXELL, LTD., Counter-Defendant.

• Provided expert reports on invalidity and rebuttal to infringement, retained by Apple in the case captioned below:

The United States District Court, Eastern District of Texas, Tyler Division
Civil Action No. 6:10-cv-74-LED-JDL
In the Matter of Certain Digital Set-Top Boxes Components Thereof
Plaintiffs: Smartphone Technologies LLC
Defendants: LG Electronics Inc, LG Electronics USA, Inc, Apple Inc, and AT&T Mobility LLC

• Provided expert report and presented tutorial at ITC hearing as technical expert, retained by Apple in the case captioned below:

The United States International Trade Commission
Investigation No. 337-TA-808
In the Matter of Certain Electronic Devices with Communication Capabilities, Components Thereof, and Related Software
Complainants: HTC Corporation
Respondents: Apple Inc

• Provided expert report and testified at ITC hearing as technical expert, retained by Cablevision in the case captioned below:

The United States International Trade Commission
Investigation No. 337-TA-712
In the Matter of Certain Digital Set-Top Boxes Components Thereof
Complainants: Verizon Services Corporation and Verizon Communications Inc.
Respondents: Cablevision Systems Corporation

• Provided declarations as a technical expert, retained by Comcast in the case captioned below:

The United States District Court for the Eastern District of Viginia, Norfolk Division
Civil Action No. 2:11 CV 103 RAJ/TEM
Plaintiffs: Bear Creek Technologies, Inc
Defendants: Comcast Corporation et al

• Provided declarations and expert report as technical expert, retained by Active Video in the case captioned below:

The United States District Court for The Eastern District of Virginia, Norfolk Division
Civil Action No. 2:10-cv-248 RAJ/FBS
Plaintiffs: Active Video Networks Inc
Defendants: Verizon Communications Inc., Verizon Services Corp. Verizon Virginia Inc. and Verizon South Inc.

• Provided expert report and deposition testimony as a technical and industry expert, retained by eleven member joint defense group in the case captioned below:

The United States District Court for The District of Maryland, Southern Division
Civil Action No.8:07-cv-03012-AW (D.Md.)
Plaintiffs: Technology Patents LLC
Defendants: Deutsche Telekom AG et al: AT&T Mobility LLC, Microsoft Corporation, Yahoo! Inc., Sprint Nextel Corporation, Motorola, Inc., Palm, Inc., Samsung Electronics Co., LTD., Samsung Telecommunications America LLP, LG Electronics Mobilecomm U.S.A., Inc., Helio, LLC, Clickatell (PTY) LTD., Cellco Partnership (d/b/a Verizon Wireless), and T-Mobile USA, Inc.)

• Provided declarations as a technical expert, retained by BigBand Networks in the case captioned below:

The United States District Court for The District of Delaware
Civil Action No. 07-351 (JJF) Plaintiffs:
BigBand Networks, Inc. Defendants:
Imagine Communications, Inc.

• Provided declarations as a technical expert, retained by Romek Figa in the case captioned below:

The United States District Court for The District of Massachusetts
Civil Action No. 08-cv-10304-NG
Plaintiffs: Romek Figa d/b/a Abraham & Son
Defendants: Apple Inc

• Provided declarations as a technical and industry expert, retained by ODS Technologies in the case captioned below:

The United States District Court Central District of California, Western Division
Civil Action No. CV 07-03265 DDP (RCx)
Plaintiffs: ODS Technologies, L.P., d/b/a TVG Network, and ODS Properties, Inc
Defendants: Magna Entertainment Corporation; HRTV, LLC., ; and Xpressbet, Inc

• Provided expert report and declarations as a technical and industry expert, retained by Motorola in the case captioned below:

The United States District Court for the District of Delaware
Civil Action No. 07-752-GMS
Plaintiffs and Counter-Defendants: Motorola, Inc., ET AL
Defendants and Counter-Plaintiffs: Rembrandt Technologies, LP, ET AL

• Provided expert report and deposition testimony as a technical and industry expert, retained by Amino Communications in the case captioned below:

The United States District Court, Central District of California
Civil Action No. CV-07-1829
Plaintiffs: Amino Communications, LLC
Defendants: Guest-Tek Interactive Entertainment, LTD, Guest-Tek Inc, and DOES 1 through 10

• Provided expert report and deposition testimony as a liability industry expert, retained by JTMD and Ascion in the case captioned below:

The United States District Court, District of Massachusetts
Civil Action No. 07-CV-10207-RGS
Plaintiffs: L& P Property Management Company and Legget & Platt Incorporated
Defendant: JTMD, LLC d/b/a Reverie, and Ascion, LLC

• Provided deposition testimony as an liability expert, retained by National Semiconductor in the case captioned below:

The Superior Court of California, County of Santa Clara
Civil Action No. 1 -02-CV8 1 0872
Plaintiff: Itech Group, Inc.
Defendant: National Semiconductor Corporation

• Provided expert report, deposition, and trial testimony as a liability technical expert, retained by Charter Communications in the case captioned below:

The United States District Court, Eastern District of Texas, Marshall Division
Civil Action No. 2-05-CV-436
Plaintiff: Hybrid Patents Incorporated
Defendant: Charter Communications, Inc.

• Provided expert report and deposition testimony as a liability industry expert, retained by Lutron in the case captioned below:

The United States District Court, District of Utah
Case No. 2:03-CV-00488TC
Plaintiff-Counter defendant: Vantage Controls, Inc.
Defendant-Counter plaintiff: Lutron Electronics Co., Inc.

• Provided expert report and trial and deposition testimony as a liability industry expert, retained by Telewizja Polska in the case captioned below:

The United States District Court, Illinois, Eastern Division
Civil Action No. 02-C-3293
Plaintiffs: Telewizja Polska USA
Defendant: EchoStar SateIlite

• Provided expert report and deposition testimony as a liability technical expert, retained by Broadcom in the case captioned below:

The United States District Court, Eastern District of Texas, Sherman Division
Civil Action No. 4:03CV159
Plaintiffs: Broadcom Corporation
Defendant: Microtune (Texas), L.P.

• Provided expert report, deposition testimony and trial testimony as a damages expert, retained by IPPV and MAAST in the case captioned below:

The United States District Court For the District of Delaware
Civil Action No. 99-577-RRM
Plaintiffs: IPPV Enterprises, LLC and MAAST, Inc.
Defendant: EchoStar Communications Corp

• Provide expert report and deposition testimony as a damages expert, retained by the TVJCOM in the case captioned below:

The United States District Court For the Middle District of Florida.
Case No. 3:OO-CV-1045-5-2 1 A
Plaintiffs: TVJCOM International, Inc.
Defendants: Mediaone of Greater Florida, Inc., Canal Plus Technologies, S.A., Canal Plus U.S. Technologies, Inc., and Societe Europeene de Controle D'Acces

• Provided expert report and deposition testimony as a liability expert, retained by Sony in the case captioned below:

The United States District Court for the Eastern District of New York
Civil Action No. 92-01 28-ARR (Consolidated), Civil Action No. 91 -5056-ARR
Plaintiffs: Loral Fairchild Corporation
Defendants: Sony Company of Japan, LTD.

• Provided expert report and deposition testimony as a liability expert, retained by General Instrument in the case captioned below:

The United States District Court for the Eastern District of Pennsylvania
General Instrument Corporation v. Scientific-Atlanta, Inc.
Civil Action No. 91 -6923
Plaintiffs: General Instrument Corporation
Defendants: Scientific-Atlanta, Inc.