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Plaintiff *Pro se*

**SUPERIOR COURT OF CALIFORNIA - COUNTY OF SANTA CLARA
UNLIMITED JURISDICTION**

VENKAT KONDA, Ph.D., an individual,

Plaintiff,

vs.

DEJAN MARKOVIC, Ph.D., an individual; CHENG C. WANG, Ph.D., an individual; and DOES 1-20, inclusive,

Defendants.

CASE NO. 19CV345846

DECLARATION OF FLAVIO BONOMI, Ph.D.

Date: ~~November 21, 2019~~
Time: ~~9 a.m~~.
Judge: ~~Peter Kirwan~~
Department: ~~19~~

I, Flavio Bonomi, Ph.D., do hereby declare as follows:

1. I make the statements herein based on my personal knowledge and I could and would competently testify thereto if called as a witness.

2. My current curriculum vitae is attached hereto as Exhibit 1.

3. I earned a Bachelor Degree in Electrical Engineering from Pavia University in Italy in 1978 and a Masters Degree in 1981 and Ph.D. in 1985 both in Electrical Engineering from Cornell University in Ithaca, New York.

4. Currently, I am a Co-founder and Chief Technology Officer ("CTO") of Nebbiolo Technologies, Inc. ("Nebbiolo") based in Milpitas, California.

5. In 2007, I was named a Cisco Fellow, Vice President, and the Head of the Advanced Architecture and Research Organization at Cisco Systems, Inc. in San Jose, California ("Cisco").

6. I have known Venkat Konda, Ph.D. ("Dr. Konda") since 2003. Since its inception in 2007, I am familiar with Konda Technologies, Inc. ("Konda Tech") and Konda Technologies Field Programmable Gate Array ("FPGA") Interconnect Intellectual Property ("Konda Tech FPGA Interconnect IP").

7. In late 2008, on a plane from San Francisco to New Orleans, I met Professor Dejan Markovic, Ph.D. ("Dr. Markovic") of the Department of Electrical Engineering, University of California at Los Angeles, California. Dr. Markovic told me that his research interest and expertise was in digital circuits, Digital Signal Processors ("DSPs"), and wireless systems. Dr. Markovic did not tell me that he had conducted any research in FPGAs prior to the time that I met him.

8. In January 2009, I made a mutual introduction between Dr. Konda and Dr. Markovic.

9. In or around January 2009, I led the Cisco Angel Network within Cisco to fund and nurture startups like Konda Tech. In or around March 2009, Konda Tech was one of six startups to which I made an oral offer for funding. However, since the Cisco Angel Network fund did not materialize, all the offers I made, including the oral offer to Konda Tech, were rescinded. Dr. Markovic was aware of this.

10. Since that time, I kept in touch with both Dr. Konda and Dr. Markovic.

11. In January 2014, for my startup company Nebbiolo, I was interested in FPGA blocks

implementing Konda Tech FPGA Interconnect IP. However, I was aware that Konda Tech is an Intellectual Property ("IP") licensing company and does not manufacture FPGA blocks on its own.

12. In January 2014, Dr. Markovic and his Ph.D. student Cheng C. Wang, Ph.D. ("Dr. Wang") told me that they founded an an Intellectual Property ("IP") licensing company "Hier Logic." They said they were interested in implementing FPGA blocks incorporating Konda Technologies FPGA Interconnect IP. Accordingly, I invited Dr. Konda, Dr. Markovic, and Dr. Wang to meet with me at my home office in Palo Alto on January 28, 2014 from 4:30 PM – 6:00P M.

13. At the meeting on January 28, 2014 at my home office, Dr. Markovic introduced Dr. Wang to Dr. Konda saying he was one of the students present in the seminar Dr. Konda gave at Dr. Markovic's lab in October 2009 and that Dr. Wang had received his Ph.D. in 2013. Dr. Markovic said that he and Dr. Wang were raising funds to build an IP company. When Dr. Konda asked Dr. Markovic if the startup they are raising funds is in the area of Wireless and DSP, Dr. Markovic replied "Yes."

14. During the meeting, Dr. Konda shared an update of Konda Tech activities and details of Konda Tech FPGA Interconnect IP.

15. Towards the end of the meeting Dr. Markovic said he may have to obtain a license from Konda Tech. Dr. Konda replied to Dr. Markovic to check out the published Konda Tech patents and patent applications and to call him if he wanted a license.

16. As I learned only on January 7, 2016 as I explain later, I was not aware that Dr. Markovic and Dr. Wang were building an embedded FPGA startup. I was not aware that Dr. Wang's Ph.D. dissertation that he submitted in 2013 was on FPGA interconnects. Neither Dr. Markovic nor Dr. Wang ever told me that Dr. Wang's Ph.D. dissertation was on FPGA interconnects and they were building an FPGA company. Had I known these facts, I would not have invited Dr. Konda, Dr. Markovic, and Dr. Wang to the meeting at my home office, and that meeting would not have happened. Dr. Markovic and Dr. Wang misrepresented to me that they are interested in building eFPGA blocks implementing Konda Tech FPGA Interconnect IP. Furthermore, there is no company registered by the name "Hier Logic." In 2014, neither Dr. Markovic nor Dr. Wang corrected me that their company was actually named HierLogix Inc.

17. A few weeks later, I set up a meeting for Dr. Konda, Dr. Markovic, and Dr. Wang to

meet with Sundar Iyer, Ph.D. ("Dr. Iyer"), Co-founder and Chief Executive Officer of Memoir Systems Inc. ("Memoir") an IP company in the area of computer memory technologies. The objective of this meeting was for Dr. Iyer to share his experiences of building IP companies with Dr. Konda, Dr. Markovic, and Dr. Wang.

18. Subsequently, Dr. Konda, Dr. Markovic, and Dr. Wang met Dr. Iyer at Memoir's offices on March 5, 2019.

19. Until on or around March 2014, Dr. Markovic was pursuing me to serve as a reference for him, as he was applying to move as a Professor to Stanford University, Stanford, California ("Stanford") and California Institute of Technology, Pasadena, California ("Cal Tech").

20. In or around February and March 2014, I was not aware that Dr. Markovic and Dr. Wang were building an embedded FPGA startup. I was not aware that Dr. Wang's 2013 Ph.D. dissertation was on FPGA interconnects. Neither Dr. Markovic nor Dr. Wang told me that Dr. Wang's 2013 Ph.D. dissertation was on FPGA Interconnects and that they were building an FPGA company. Otherwise, I would not have set up the meeting for Dr. Iyer to meet with Dr. Markovic, Dr. Wang, and Dr. Konda.

21. On or about the fourth week of December 2015, Dr. Konda texted me to meet with him, but I was in Italy at that time. After I returned to California, on January 7, 2016, Dr. Konda met with me in my office at Nebbiolo in Milpitas, California. Dr. Konda told me that he had met Vaughn Betz, Ph.D. ("Dr. Betz") who is a professor in the Department of Electrical and Computer Engineering, University of Toronto, Toronto, Canada on December 18, 2015 at his University of Toronto office. Dr. Konda told me that Dr. Betz had asked him if Flex Logix Technologies, Inc. ("Flex Logix") was implementing Konda Tech FPGA Interconnect IP. Dr. Konda told me that he subsequently searched on the World Wide Web and only then found out that Dr. Markovic and Dr. Wang had founded Flex Logix to manufacture eFPGAs. Dr. Konda told me he contacted me to inquire if I knew about it. I myself learned about it for first time from Dr. Konda and was shocked.

22. Until January 7, 2016, I did not know that Dr. Markovic and Dr. Wang were building an eFPGA startup. I was not aware that Dr. Wang's 2013 Ph.D. dissertation was on FPGA Interconnects. Neither Dr. Markovic nor Dr. Wang told me that Dr. Wang's 2013 Ph.D. dissertation was on FPGA

Interconnects and that they had founded two companies, Hierlogix Inc. and Flex Logix.

23. In summary until January 7, 2016, I did not know that Dr. Markovic and Dr. Wang were involved with Flex Logix which manufactures eFPGAs. Otherwise I would not have set up the two above described meetings on January 28, 2014 and March 5, 2014 where Dr. Konda, Dr. Markovic, and Dr. Wang were also attendees. Dr. Markovic and Dr. Wang misrepresented to me their startup activities. I feel I let down Dr. Konda by introducing him to Dr. Markovic in 2009 and setting up those two meetings in 2014. I also now believe that in or around 2014, Dr. Markovic's primary interest was to get a reference from me as he was applying to move as a professor to Stanford or Cal Tech and misrepresented to me that he had any real interest in those meetings with Dr. Konda and Dr. Iyer.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this Declaration was entered into on this 24th day of October 2019 in Milpitas, California.

Flavio Bonomi, Ph.D.

EXHIBIT 1

Flavio Bonomi

PhD

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About

Skills

- Leadership
- Team Building
- Customer Focus
- Strategic Planning
- Keynote Presenter
- Technology Expert
- Product Strategies
- New Paradigms

Flavio Bonomi is the Founder and CTO at Nebbiolo Technologies, a Silicon Valley startup delivering the first complete Fog/Edge Computing software platform for the Industrial Automation market. This platform vision is now being broadly adopted as the future of Industrial Internet of Things and for the transformation of the Industrial Floor infrastructure.

During his 14 years at Cisco Systems as a Cisco Fellow and VP, where he led the vision and technology initiative for Cisco's forward looking initiatives, Flavio and his team recognized a need for deploying modern computing resources closer to the endpoints or edge, adopting the advanced innovations recently developed in the domain of Cloud Computing. The solution they identified would offer all the advantages of the Cloud married to the connectivity, security, real-time and safety capabilities required in the Industrial IoT domain. Thus, "Fog Computing" was born.

Prior to Cisco, Flavio spent 10+ years in Bay Area startups and 10+ years at AT&T Bell Labs, where he became a Distinguished Member of Technical Staff. During his career, Flavio directly contributed to fundamental technology inflections in the fields of Data Networking, Computing, and Industrial IoT, including:

- Industrial Automation & Transportation
- Fog, Edge, and Cloud Computing
- Software Defined Networking (SDN)
- Data Management, Big Data & Analytics
- Switching and Storage Architectures
- Routing, Enterprise, & Data Center Architecture
- Traffic Management & Performance Analysis
- Congestion & Priority Control within and across Networks

A visionary entrepreneur and technologist, Flavio thrives at the boundary between applied research and advanced technology commercialization. He has published 100+ papers in technical journals and conference proceedings, a book chapter, and is co-inventor in 70+ USA and International Patents.

Flavio has PhD and MS degrees in Electrical Engineering from Cornell University and a Laurea Summa Cum Laude Electrical Engineering from University of Pavia, Italy.

2015 - 2019	Nebbiolo Technologies, Inc - CEO & Founder
2013 - 2014	IoXWorks, Inc - CTO & Founder
2007 - 2013	Cisco Systems, Inc. - VP, Fellow, Head of Advanced Architecture & Research
1999 - 2007	Cisco Systems, Inc. - Senior Architect, Distinguished Engineer
1998 - 1999	StratumOne, Inc (acquired by Cisco Systems, Inc) - Chief Architect
1995 - 1998	CSI Zeitnet (acquired by CSI Cabletron) - Senior Architect
1984 - 1995	AT&T Bell Labs - Distinguished Member of Technical Staff
Recognition	Top 50 Edge Computing Influencer, Data Economy, June 2018
Awards	Cisco Pioneer Technology Award 2001 and 2003
Inventions	70+ US and International Patents
Publications	Published 100+ papers in technical journals/conference proceedings/book chapter
Languages	Fluent in spoken and written English and Italian, knowledge of Spanish
Citizenship	USA and Italian Citizenship

Flavio Bonomi

4/2019 - Present **Nebbiolo Technologies, Inc - CTO & Founder, Milpitas, CA**
Flavio is the CTO at a Silicon Valley startup focused on unleashing the potential of Fog/Edge Computing with the first application in the Industrial Automation vertical. Flavio continues to be the chief evangelist for Fog/Edge Computing in Industrial IoT verticals at a time when this paradigm is being embraced as the fundamental complement to Cloud Computing.

2/2015 - 4/2019 **Nebbiolo Technologies, Inc - CEO & Founder, Milpitas, CA**
Flavio founded and led Nebbiolo Technologies as CEO over its first 4 years. The company raised $16M of Series A funding from KUKA, German leader in Industrial Robotics, TTTech, Austrian leader in Industrial Networking, and GiTV, a VC from Japan. The company is now raising a Series B round. Nebbiolo offers a complete Fog/Edge Computing software platform, comprised of a rich software stack (the fogOS), running on a variety of distributed Fog Nodes (industrial PCs), and a centralized system management (the fogSM). Nebbiolo is targeting and deploying its products for customers in Automotive Manufacturing, Oil & Gas, and Energy verticals.

12/2013 - 10/2014 **IoXWorks, Inc - CTO & Founder, Palo Alto, CA**
IoXWorks was an incubation, technology, and intellectual property advisory aimed at accelerating technical innovation, product development, and market adoption in the area of the Internet of Things.

6/2007 - 10/2013 **Cisco Systems, Inc. - VP, Fellow, Head of Advanced Architecture & Research, San Jose, CA**
As a leader of this dynamic organization, driving innovation and research activities across Cisco, Flavio shaped a number of innovations relating to mobility, security, communications acceleration, distributed computing, and data management.

This organization's effectiveness resulted from collaborating on development projects with Cisco BUs, engaging with external startups and larger industrial partners, funding academic research initiatives across the globe, and hosting University professors and students. Under Flavio's leadership, Cisco's Advanced Architecture and Research Organization became a world-class catalyst and contributor in several technological breakthoughs still resonating across our industry, including:

- **Industrial Internet of Things (IIoT):** Co-leader of the vision and technology direction for Cisco's Internet of Things initiative. This broad, Cisco-wide initiative encompassed major verticals,
- including Connected Vehicles and Transportation, Connected Cities, and Energy.
- **Fog and Edge Computing:** Flavio and his team are recognized as the creators of Fog Computing and the paradigm shift in 2010, now also referred to as Edge Computing.
- **Software Defined Networking (SDN):** Flavio and his team funded and directly contributed with a spin-off of PLUMGrid (acquired by VMWare) to the broad SDN movement, driven by Professor Nick McKeown at Stanford University
- **Cloud Computing:** Flavio and his team brought Cloud Computing to Cisco's attention and participated in early innovations in this area, in Collaboration with UC Berkeley's RAD Lab.
- **Data Management, Big Data and Analytics:** Flavio and his team contributed to many of the early Data Management and Big Data initiatives at Cisco, and injected the first Streaming Analytics technologies into Cisco, by driving two startup acquisitions in this area (Tigerme and Truviso).
- **Flexible Packet Parsing, Content Inspection Algorithms and Grammar Processing**
- **Traffic Management, TCP/IP Evolution, Video Transport**
- **Evolution of Switching and Routing Architectures and Performance Analysis**
- **Wireless and Mobility Research, with focus on the Networked Vehicle Initiative**
- **Definition and Standardization for Data Center Ethernet and Storage Technologies**
- **Security Innovation**

All these initiatives involved a strong and close partership with related Business Units and have produced fundamental and lasting impact on a number of Cisco projects and products.

Flavio Bonomi

5/2004 - 6/2007 **Cisco Systems, Inc. - Senior Architect, Distinguished Engineer, Data Center Switching BU**
Flavio led a 20 person Architecture Team and was responsible for key directions in the evolution of the Catalyst 6500 Switch/Router System and the Nexus 7000, flagship platforms for Cisco Systems and market leaders among high-end Enterprise and Data Center Switching Systems.

Together with his team, Flavio was responsible for key contributions to the definition and performance analysis of the new NEXUS 7000 core architecture, a number of new line card ASICs, as well as the definition and standardization of many features of Data Center Ethernet, including BCN/QCN, Flexible Scheduling, and Fibre Channel over Ethernet.

Flavio was one of the key drivers behind the acquisition of several technology companies (including Netsift and NeoPath) relevant to the future of Enterprise and Data Center.

9/2006 - 6/2007 **Stanford University - Consulting Professor, Department of Electrical Engineering & Computer Science**
Flavio conducted joint research in the areas of Switching Architectures, Traffic Management, and Packet Forwarding Algorithms, in collaboration with Professors Balaji Prabhakar and Nick McKeown

9/1999 - 5/2004 **Cisco Systems, Inc. - Senior Architect, GSR/12K Development BU, San Jose, CA**
Architectural leadership position responsible for key directions in the evolution of the GSR 12000 Internet Router, the flagship platform for Cisco Systems, and market leader among high end routers with tens of thousand systems deployed. Key contributions include:

- Led the positioning and evolution of the GSR router towards full Core and Multi-Service Edge capabilities required in the evolution toward a unified Packet Switched Network and contributed fundamental architecture elements to the GSR development.
- Architected the scaling of the GSR infrastructure capacity from 10Gbps per slot to 40Gbps and the line card scaling from 10Gbps to 20Gbps.
- System architecture for the 10Gbps core GSR line cards, the most widely deployed router cards at this speed.
- Conceived an evolutionary path towards a Multi-Chassis GSR product, known as “Teracore”, using the GSR chassis as a line card chassis connected to a central, external Multi-Terabit Switching Fabric.

8/1998 - 9/1999 **StratumOne, Inc (acquired by Cisco Systems, Inc) - Chief Architect, Santa Clara, CA**
Technical leadership position responsible for the conception, positioning, feature definition, global architecture design, detailed behavioral design, and performance analysis of all new networking products of StratumOne, a leading semiconductor start-up, first to the market with OC-192 SONET framers for packet and ATM networks. Brought to the team key competence in networking and a strong execution team with networking experience. Key contributions include:

- Conceived and architected an advanced Packet Processor plus Traffic Manager device, the “Traffic Master”, capable of a full duplex 2.5Gbps throughput, packet and ATM cell full processing and traffic management, with hierarchical queuing and scheduling.
- Conceived and architected the “Ring Master” a Traffic Manager plus Ring Access Controller, supporting access to packet rings based on Cisco’s DPT technology, capable of a full duplex 2.5Gbps throughput.

StratumOne was acquired by Cisco Systems in June 1999.

Flavio Bonomi

9/1995 - 8/1998 **CSI Zeitnet (acquired by CSI Cabletron) - Senior Architect, Santa Clara, CA**
Technical leadership position responsible for the conception, positioning, feature definition, global architecture design, detailed behavioral design, and performance analysis of all new networking products of CSI Zeitnet. Such products include ATM network adapters, Frame to ATM uplinks, and ATM switches.

Zeitnet was acquired by Cabletron Systems in June 1996.

6/1992 - 9/1995 **AT&T Bell Labs - Distinguished Member of Technical Staff, ATM Platform Organization, Red Bank, NJ**
Played a key role in the development of AT&T's family of ATM products with responsibilities in the areas of system architecture definition, performance, traffic policing, congestion control, performance management, admission control, and traffic engineering. Defined network routing/rerouting algorithms and ABR ATM service support for the GlobeViewTM-2000 Family of Broadband Systems.
Delivered fundamental contributions in the following areas:

- Cell buffering and scheduling,
- Congestion control,
- Flexible policing and multicasting.
- Lead research efforts on ATM within AT&T Bell Labs and collaborated with international research institutions and universities
- Provided crucial link within AT&T between research and product development on ATM.

6/1991 - 6/1992 **AT&T Bell Labs - Member of Technical Staff, Data Networking Customer BU, Middletown, NJ**
Part of a special Task Force which charted AT&T Network Systems' course into ATM networking. The results of the Task Force work led to Network Systems' commitment to form the ATM Platform Organization and to develop ATM products. Major contributions were in the areas of general system architectures, performance, congestion and priority control, and competitive analysis.

12/1984 - 6/1991 **AT&T Bell Labs - Member of Technical Staff, Performance Analysis Department, Holmdel, NJ**
Developed professional expertise in consulting and research in Performance Analysis. Research topics were always designed to resolve problems arising during product development. Produced significant research contributions in the areas of:

- UNIX multi-processor systems architecture and process-to-processor assignment, deployed in several products.
- Capacity planning and performance analysis of an Operations Support System which is used worldwide for the maintenance of telephone networks.
- Adaptive Load Balancing approach implemented in the AT&T Autoplex 1000 family of call processing nodes.

9/1981 - 9/1984 **Cornell University - Research and Teaching Assistant, Ithaca, NY**
Worked on the theory of Optimal Quantizers and Permutation Codes and on topic of Random Fields Theory. Coordinated laboratory work for a microprocessor design course and practice sessions for a probability course.

9/1981 - 12/1984 **PhD Electrical Engineering - Cornell University, Ithaca, NY**
Minors in Mathematics and Operations Research. Thesis dealt with the theory of Random Fields in the perspective of Information Theory. Coursework included Information Theory, Mathematical Analysis, Probability Theory, Stochastic Processes, Optimization, and Statistics.

9/1980 - 6/1981 **Master of Science Electrical Engineering - Cornell University, Ithaca, NY**
Coursework included Decision and Estimation Theory, Optimal and Adaptive Control, Microprocessor Systems, Computer Systems Design, and Dynamic Programming.

Flavio Bonomi

10/1973 - 10/1978	**Laurea Summa Cum Laude Electrical Engineering - University of Pavia, Pavia Italy** Thesis dealt with a mathematical model of the neutrophil cell production in man. Scope of the thesis concerned the analysis and numerical integration of a system of nonlinear differential equations with time lags. Coursework included Computer Systems Design, Control, and Communications.
Recognition/Honors	Top 50 Edge Computing Influencer, Data Economy, June 2018 Cisco Fellow (VP Level) - Cisco Systems 2008 Cisco Distinguished Engineer - Cisco Systems 2003 Cisco Pioneer Technology Award 2003 Cisco Pioneer Technology Award 2001 Distinguished Member of Technical Staff - AT&T Bell Laboratories 1994 Rotary Foundation Scholarship 1980-1981 for one year of graduate study in the USA Honorable discharge Italian Army 1980 Laurea Summa Cum Laude - University of Pavia, Pavia Italy Borromeo College Fellowship 1973 - 1978, Pavia Italy
Inventions	70+ US and International Patents
Publications	Published 100+ papers in technical journals/conference proceedings/book chapter
Languages	Fluent in spoken and written English and Italian, knowledge of Spanish
Citizenship	USA and Italian Citizenship
Hobbies	Skiing, biking, soccer, yoga, cars, and music
References	Available upon request.
LinkedIn	