To my son, Ujwal

For the greatest thing that ever happened to me
Acknowledgements

In my first decade in the industry, I enjoyed my life as a programmer, building things that I found interesting. That was before I met Prof. Kesav V Nori. He posed questions, for which I didn’t want to know the answer. Very soon, I realized the obvious, that my head was buried in silicon!!! I was fascinated with what I can do with the machine and lost sight of the big picture of why should the machine do these things and who are the beneficiaries? This started my journey into the world of Architecture which has lasted for more than a decade now. Prof. Nori has been my mentor, guide, advisor, teacher, and my very own “Dumbledore” who had my best interests at his heart and constantly kept pushing me out of my comfort zone. Thanks very much Prof, I don’t think that any of this work would have seen the light of the day without your wisdom and guidance.

Software Plug and Play, is a hitherto unexplored area. The existing mechanisms in hardware and operating systems required considerable effort and consensus on the part of the device vendors. TCS provided me the necessary working environment to try out Plug and Play in different projects over the last decade or so. At the end, I found the journey very satisfying. Thanks very much TCS. Specifically, I would like to thank the CTO, Mr. Ananth Krishnan for his unwavering support for this work for close to a decade and for reviewing the different architectures and its implementations and providing critical inputs.

I would also take this opportunity to thank Prof. Raghu Reddy and Prof. Venkatesh Chopella from IIIT Hyderabad, Prof. T V Prabhakar from IIT Kanpur and Prof. Srinivas Padmanabhumi, for sparing their time to review this work and provide critical inputs for its improvement. Thanks very much Professors.

This journey would not have been enjoyable without the presence of my friends and TCS colleagues from the erstwhile BSCC center, Doji, Jose, Nikhil, Dr. Swami, Prof. Viswanath and Dr. VCS Prasad. It was a joy to spend time with them discussing about how exactly Plug and Play has happened, amongst numerous other things, especially when the problem was not as simple as connecting two compatible parts together. They taught me the notion of Value, Quality, Structure and Process, the essential ingredients for Architecting. They taught me principles, guidelines and values that are worth living for. They took the trouble to review my manuscripts and thereby helped me become better. Thanks very much my dear friends.
I would like to take this opportunity to thank two wonderful architects that I have encountered in my professional life, Dr. James N Martin and Jean-Luc Garnier. We have had numerous discussions on foundational concepts on Architecture. They took the effort to guide me, mentor me, share their experiences, knowledge and wisdom, gave me opportunities to contribute and help me learn and grow. Thanks very much my dear friends, it has been a great honor to know you and to work with you.

It would be unfair to speak about the journey without mentioning the numerous friends, relatives and experts who have reviewed the manuscript, clarified many of the architecture concepts and had healthy discussions with me on Architecture. I would like to thank Ravindra Metta, Dr. Mayuri, Dr. Gomathy, Dr. Vidya, Dr. Supriya, Sekhar Vadari, and Vinay Kulkarni. I would also like to thank my brothers, Aravind and Vivek, for all the unrelated information, puns, humor and lightening life. I would also like to thank ISO, INCOSE and ISSS communities for providing me resources on architecture and systems without which I would have spent some more years on this subject.

I would like to thank my better half, Rupa, a medical scientist, who had to listen to numerous sermons from me about Plug and Play, my ramblings on Architecture and just about everything in this world. Thanks very much for being there for me and for being part of this fabulous journey.

I would like to thank the two ladies in my life who have been with me for my entire existence, my mom and my aunt, Swathi. There were long periods, when I used to come home and continue my work, while my mom would be patiently sitting next to me without intervening in any way and always ensuring that I took care of my health and ate properly. They were always there as pillars of strength, which I drew upon, whenever I doubted myself. They showed me the positive aspects of life, how to face challenges and how to live with uncertainties. Thanks very much mom. Thanks very much Swathi.

Finally, I would like to thank my son, Ujwal, for the sheer amount of joy and happiness that he emanates, making my life meaningful and worth living. I dedicate this entire work to him.