IBM's 360 And Early 370 Systems (History Of Computing)
Synopsis

No new product offering has had greater impact on the computer industry than the IBM System/360. IBM's 360 and Early 370 Systems describes the creation of this remarkable system and the developments it spawned, including its successor, System/370. The authors tell how System/360’s widely-copied architecture came into being and how IBM failed in an effort to replace it ten years later with a bold development effort called FS, the Future System. Along the way they detail the development of many computer innovations still in use, among them semiconductor memories, the cache, floppy disks, and Winchester disk files. They conclude by looking at issues involved in managing research and development and striving for product leadership. While numerous anecdotal and fragmentary accounts of System/360 and System/370 development exist, this is the first comprehensive account, a result of research into IBM records, published reports, and interviews with over a hundred participants. Covering the period from about 1960 to 1975, it highlights such important topics as the gamble on hybrid circuits, conception and achievement of a unified product line, memory and storage developments, software support, unique problems at the high end of the line, monolithic integrated circuit developments, and the trend toward terminal-oriented systems. System/360 was developed during the transition from discrete transistors to integrated circuits at the crucial time when the major source of IBM’s revenue was changed from punched-card equipment to electronic computer systems. As the authors point out, the key to the system's success was compatibility among its many models. So important was this to customers that System/370 and its successors have remained compatible with System/360. Many companies in fact chose to develop and market their own 360-370 compatible systems. System/360 also spawned an entire industry dedicated to making plug-compatible products for attachment to it. The authors, all affiliated with IBM Research, are coauthors of IBM’s Early Computers, a critically acclaimed technical history covering the period before 1960.

Book Information

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As the 1960’s began, IBM found themselves with eight incompatible computer product lines, which they were each trying to support with software development. They came up with the idea of replacing all of those systems with a new line of five upward compatible computers, which would span the market. This was to stretch from the very cheapest, low power machines, all the way to the top. It was a gargantuan undertaking and it was also a "bet the company" risk. Fortune magazine called the decision "the most crucial and portentous--as well as perhaps the riskiest--business judgment of recent times." The effort to simultaneously design and manufacture five new computer systems and support them with software turned into the biggest struggle the company had ever faced. Before it was over, CEO Tom Watson would lament, "We somehow have an organization that destroys more men than it produces..." But that only indicates the candor, honesty and introspection that this book represents, for in the end, they all came through with flying colors, delivering amazing close to predictions. This was in spite of having pioneered numerous advances like microcoded CPUs, cache memory, time sharing technologies and automated hybrid integrated circuit manufacturing, along the way. This book works well as a follow-on to another by some of the same authors, the spellbinding book, "IBM's Early Computers". While "IBM's 360..." doesn't cover quite as exciting a period as the earlier work, it certainly delivers its share of amazing stories. I thoroughly enjoyed it.

The authors do a great job at explaining how modern computing was born (through IBM mostly) and how System 360 was really the first complete computer line. It's fairly easy to read for the most part (i.e. it's not boring!). I found the coverage of the software side of things to be a bit light, when you consider how much of a problem it was (the hardware was on time/budget, the software wasn't!). Still a great book, very interesting, extremely well documented and well written.

Classic book about a revolutionary technology
A must read and reference book for historians of commercial computing, full of facts and detailed information not available anywhere else.

What a terrific book. I was surprised to find this book so readable given the technical nature of some of the material covered. The book is a great mix of technical detail and information about the IBM'ers involved in the creation of these systems. A must for those interested in the history of computing.

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