

Internet of Things for Architects



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The Internet of Things (IoT) is the fastest growing technology market. Industries are embracing IoT technologies to improve operational expenses, product life, and people's well-being. An architectural guide is necessary if you want to traverse the spectrum of technologies needed to build a successful IoT system, whether that's a

single device or millions of devices.

This book encompasses the entire spectrum of IoT solutions, from sensors to the cloud. We start by examining modern sensor systems and focus on their power and functionality. After that, we dive deep into communication theory, paying close attention to near-range PAN, including the new Bluetooth® 5.0 specification and mesh networks. Then, we explore IP-based communication in LAN and WAN, including 802.11ah, 5G LTE cellular, SigFox, and LoRaWAN. Next, we cover edge routing and gateways and their role in fog computing, as well as the messaging protocols of MQTT and CoAP.

With the data now in internet form, you'll get an understanding of cloud and fog architectures, including the OpenFog standards. We wrap up the analytics portion of the book with the application of statistical analysis, complex event processing, and deep learning models. Finally, we conclude by providing a holistic view of the IoT security stack and the anatomical details of IoT exploits while countering them with software defined perimeters and blockchains.

作者介绍:

Perry Lea has spent 21 years at Hewlett Packard as a distinguished technologist and chief architect. He then served as a distinguished member of technical staff and strategic director at Micron Technologies leading a team working on advanced computing devices. He is currently a technical director at Cradlepoint where he leads advancement and research in IoT and fog compute.

Perry has degrees in computer science, computer engineering, and an EE degree from Columbia University. He is a senior member of IEEE and a senior member/distinguished speaker of ACM. He has 8 patents with 40 pending.

目录: Table of Contents

1. The IoT Hype
2. IoT Architecture and Core IoT Modules
3. Sensors, Endpoints, and Power Systems
4. Communications and Information Theory
5. Non-IP Based WPAN
6. IP-Based WPAN and WLAN
7. Long Range Communication Systems and Protocols (WAN)
8. Routers and Gateways
9. IoT Edge to Cloud Protocols
10. Cloud and Fog Topologies
11. Data Analytics and Machine Learning in the Cloud and in the Fog
12. IoT Security
13. Consortiums and Communities
- • • • • [\(收起\)](#)

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标签

IoT

计算机

物联网

评论

Amazing! 一口气读完了。花了我6个小时，公司免费阅读合作网站，看全球最新书。作者太牛逼了！大局观、参加了一个物联网的技术ppt，而且是最牛逼的人。宏大的格局，站在整个物联网顶端，以上帝之手，每个细节节节到来。正中题目是写给工程师的，作者确实牛逼。什么都懂，而且还懂的很深入！所以，不要自我设限。什么都有可能。你真的可以尽可能多的懂的很多。可以看待自己的工作站在更高的层面。 Sensors, Endpoints, and Power Systems LPWAN、PWAN、IEEE 802.15.4、Zigbee、Z-Wave、6LoWPAN、Thread、802.11ah、Lora、Sigfox、frame、security、routing、addressing...

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书评

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