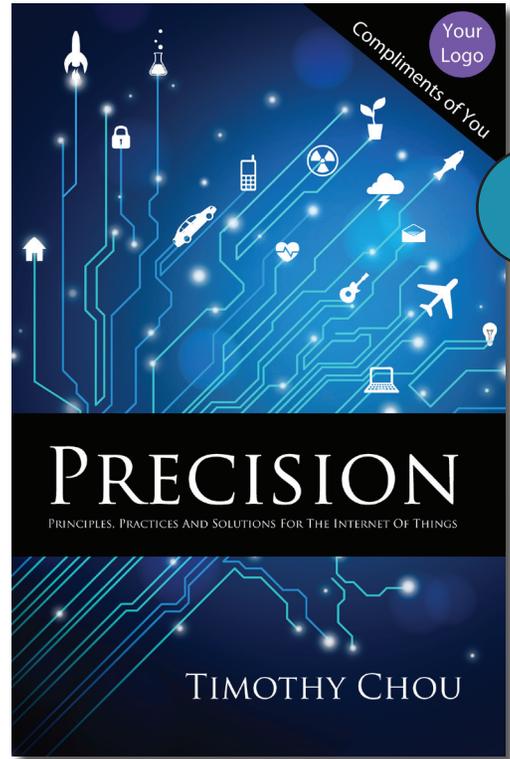


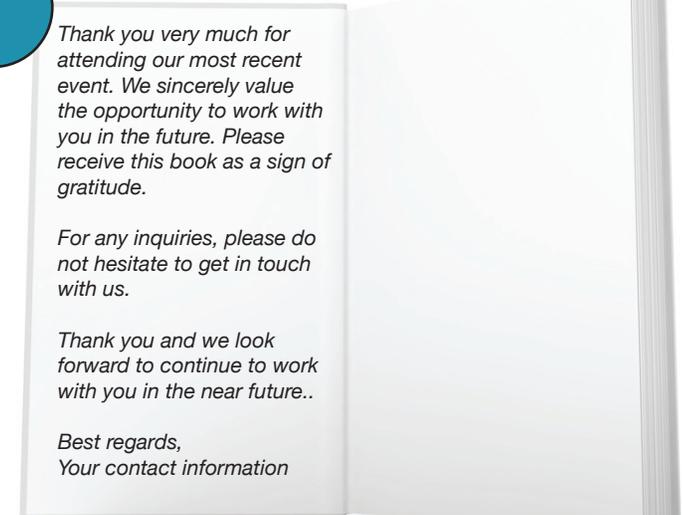
Precision: Principles, Practices and Solutions for the Internet of Things Special Edition, Customization Opportunity

“If you want to go beyond the hype and really understand what the Internet of Things is today, what it could become tomorrow, and how you can gain value from it, Precision should be in your library.”
— Godfrey Sullivan, Chairman, Splunk

- External Event Giveaway**
- Customers, partners
 - Lead generation (by vertical, by location)
 - Conference booth
 - Sales kick-off
- Gift of Appreciation**
- Seller to customers
 - Seller / Bus Dev to partners
 - Marketing to sellers
 - Marketing to prospects
 - Executives to employees
- Internal Training**
- Executive IoT briefing
 - Lunch & learn
 - 1-day seminar
 - Inverted classroom
 - IoT training materials



- 1. Your Logo and Message**
- Add your brand to the cover
 - Add your cover letter to page 2



- 2. Your Stories**
- Add your own IoT example story chapter(s) to Book 2: Solutions
- You create the story(s), and/or
 - We create the story(s) for you

2

Book 2: Solutions	117
14. Introduction - Solutions	119
15. Your IOT Solution Story ...	123
Things	124
Connect	125
Collect	126
Learn	127
Do	128

Learn more at crowdstory.com/precision
Contact: precision@crowdstory.com

Foreword (Excerpt from Precision)

It is no secret that technology brings change – fast. And it has been proven that the businesses that are able to embrace the change and use it to their advantage are the ones that survive and thrive. In the industrial space we are at a moment where technology is leading business strategy. That means that leaders need to rapidly embrace and understand how technology can and should affect their business. Timothy has had a front seat working with the leaders in the industry who are mastering the realizing of value from the merger of physical and digital.

For many, this merger is uncomfortable because when you start – you don't always know where you will end up. You might end up on a path that leads you to make a change in a business model, a change in how your organization works or a change in how you view your competition. Sometimes it can even change the definition of who you compete with. At GE, we had to make some of these tough decisions as part of our own transformation. It wasn't easy and we didn't do it overnight. One key lesson is that one must always be learning to be successful on a digital journey.

Until now, most industrial business has been focused on making or owning the asset; essentially, everything that goes into designing, building, operating and maintaining an asset. Business leaders could focus on making improvements to things that were familiar or comfortable. Processes could be made leaner. People could be trained in Six Sigma to gain advantage. Now, thanks to technology, everywhere you look it is about how to get the best outcome from that asset. Those same assets can be monitored and operated in entirely new ways – driving improvements like never before. Better speeds, more information, better experience and more productivity – in short, better outcomes from every asset and industrial process. Industrial data coupled with the best analytics are becoming the center of competitive advantage.

The best companies of the future will be those that are able to master the emerging world of connected machines, capture new sources of information from sensors and build deep learning capabilities, all of which helps gain insights and get the most out of physical infrastructure. We are entering a world where we have a greater level of precision to our decision making than ever before. We will drive new levels of productivity that will become the driving force for the world's economy.

Figuring out how to best capitalize on the Industrial Internet can be daunting and confusing. Here in Precision, Dr. Chou is helping to demystify the processes behind getting better outcomes from assets of any kind – machines, real estate, people, factories, etc.; from the initial setup of an organization's IOT framework to defining the principles behind the operations and on to examples and best practices. With a proven case study approach, Timothy has gathered the right examples to help leaders grasp what they need to do and how to do it.

This book is approachable by any business or technical leader. It not only describes the promise, but more importantly makes the process of shifting your thinking and building your own strategy and plan easy to understand.

In the future every business will be a digital business. William Gibson's quote “The future is here – it's just not evenly distributed” is very apropos to the current state of affairs. It is important for businesses to begin their journey to being digital. This book provides both the crystal ball into the future as well as a roadmap to get started.

Bill Ruh
CEO, GE Digital and Chief Digital Officer, GE
April 2016, San Ramon, CA



Standard Precision Book 1 Table of Contents: Principles and Practices

1. Introduction to Principles and Practices	Many people think the Internet of Things (IoT) is about your toaster talking to your refrigerator. While there will no doubt one day be very useful consumer IoT applications, the focus of this book is on applications of the enterprise IoT.
2. IOT Framework	Whether you're building, buying, selling or investing in technology to enable enterprise IoT applications, this chapter describes an IOT framework — consisting of five major components: Things, Connect, Collect, Learn, and Do — you can use to understand the various components or parts of the industry.
3. Thing Principals	As a manufacturer of any modern machine, it's now possible to put a lot of sensors to work. Even the cell phone in your hand can have 14 different sensors. Precision machines will also be software enabled, which requires you to make decisions about the computer architecture and the software environment: all of this will need to fit into packages which have cost and environmental constraints. And finally in the modern world you'll need to think about security.
4. Things in Practice	This chapter shows cases of next generation Things in a variety of industries: consumer, construction, telecommunications, power, oil and gas, healthcare, biotech, transportation, agriculture, and manufacturing.
5. Connect Principles	Connecting Things requires a diverse set of technologies based on the amount of data that needs to be transmitted, how far it needs to go, and how much power you have. Furthermore, you have many choices at a higher level on how to manage the connection, as well as how the connection is protected and secured. In this chapter we'll give you a brief tutorial on networking and some of the fundamental principles.
6. Connect in Practice	This chapter shows cases of the multiple ways Things can be connected across a variety of industries: consumer, construction, telecommunications, power, oil and gas, healthcare, biotech, transportation, agriculture, and manufacturing.

7. Collect Principles	Things aren't people. One of the ways that's true is the volume of data that can be generated by Things will be orders of magnitude larger than applications of the Internet of People. In this chapter we'll cover some fundamental ways Thing data might be collected and stored. This includes in-memory databases, noSQL, time-series and noTimeSeries collection architectures.
8. Collect in Practice	This chapter shows cases of the multiple ways in which data can be collected across a variety of industries: consumer, construction, telecommunications, power, oil and gas, healthcare, biotech, transportation, agriculture, and manufacturing.
9. Learn Principles	In the last generation of enterprise software we first focused on transaction processing and workflow applications and then used BI and OLAP applications to learn from the data. This time let's use technology to learn from data; we'll cover visualization, statistics, regression, and machine learning.
10. Learn in Practice	In the last generation of enterprise software we first focused on transaction processing and workflow applications and then used BI and OLAP applications to learn from the data. This time let's use technology to learn from data; we'll cover visualization, statistics, regression, and machine learning.
11. Do Principles	Outcomes. What are the outcomes? What does all of this technology to connect, collect and learn do? In this chapter we'll discuss three major business benefits to the producers of modern machines, and three major benefits to the consumers.
12. Do in Practice	We'll cover cases across a variety of industries: consumer, construction, telecommunications, power, oil and gas, healthcare, biotech, transportation, agriculture, and manufacturing..
13. Summary - Principles and Practices	This chapter will wrap up the introduction and discuss how these technologies can transform businesses..

Standard Precision Book 2 Table of Contents: Solutions

14. Introduction to Solutions	The first part — <i>Principles and Practices</i> — describes the fundamental technologies required to build Internet of Things (IoT) applications. This part — <i>Solutions</i> — takes the point of view of the manufacturer of precision machines and the services that use those machines to provide precision services. It is organized as a series of cases designed to be read by technologists and business people.	21. Precision Construction	This case study introduces how a major construction equipment rental company, which offers thousands of classes of equipment to construction and industrial companies, manufacturers, utilities, municipalities, and even homeowners, deploys IOT with a focus on the SAE J1939 -- the business standard in the world of heavy equipment for communication and diagnostics among vehicle components.
15. Precision Mailing	This case story focuses on Pitney Bowes' CIO Roger Pilc and his team's work in enterprise business solutions, which offers equipment and services to enable large enterprises to create large-scale mailings including bills and statements.	22. Precision Healthcare	This case story discusses how the UC Irvine medical center under the leadership of Charles Boicey an informatics solution architect has piloted a new technology to frequently monitor and transmit patient vital signs.
16. Precision Trains	This case story introduces Greg Hrebek, the director of engineering at New York Air Brake (NYAB) and how NYAB has been increasingly using information from Things to improve operational efficiency.	23. Precision Oil and Gas	This case story focuses on the use of IOT on Oil and gas production platforms.
17. Precision Mining	This case story describes how Joy Global, a leading producer of mining systems, equipment, parts and services for underground and surface mining of coal, copper, iron ore, oil sands, gold and other mineral resources, deploys IOT. This chapter focuses on Joy Global's longwall systems, used in coal mining.	24. Precision Power	This case story discusses the use of a particular kind of Thing in the power industry by Duke Energy — a phasor measurement unit (PMU) — which is a device that measures the electrical waves on an electricity grid using a common time source for synchronization.
18. Precision Gene Sequencers	This case story describes how the market leader in gene sequencers Illumina utilizes IOT, with a focus on the Illumina MiniSeq DNA sequencing system.	25. Precision Farming	This case story with Nick August at August Farms located in the Cotswolds area of England illustrates the complexity of using multiple machines from multiple generations of technology and multiple sensors to enable the delivery of precision farming products.
19. Precision Agriculture Machines	This case story introduces Paul Blackmore, who has worked for AGCO for more than twenty years, and how the AGCO Corporation -- a multi-billion-dollar manufacturer of agricultural equipment -- utilizes IOT, with a focus on the Gleaner-brand combine.	26. Precision Water	This case story follows Adam Setzler at McCrometer which designs, builds and sells robust and reliable mechanical flow meters. Here we'll discuss a couple of sensors that McCrometer sells, including water-flow meters, weather stations and soil-moisture meters.
20. Precision Buildings	This case story introduces Leroy Walden, Vice President of McKenney's Inc. a mechanical contractor in the Southeast that offers a full range of services, including heating, ventilating and air conditioning (HVAC), process piping, plumbing, service and maintenance, and building automation and control systems, and how McKenney's joined Gulf Power and Chevron Energy Solutions to implement a new energy management system at Eglin Air Force Base (Eglin).	27. Summary - Solutions	This summary discusses some of the steps available to builders of enterprise Things to begin the digital transformation of their businesses.