



# THE PAST SHAPES THE FUTURE

## Managing healthcare using the Internet of Health Things

The Internet of Health Things (IoHT) is already delivering tangible cost savings. But continuous investment is essential. To succeed in the digital economy, healthcare providers and payers must take full advantage of IoHT now to grow their businesses in the long-term.

### MANAGING THE FUTURE OF HEALTHCARE REQUIRES UNDERSTANDING ITS HISTORICAL CONTEXT.



**1990'S**

**Wave One:**

Web & Internet



**2000'S**

**Wave Two:**

Mobility



**2010'S**

**Wave Three:**

The Internet of Health Things

**Digital transformation has been challenging (and even bypassing) the healthcare industry across digital waves.**



Each digital wave is cumulative, building on the prior wave to add more value to subsequent waves.

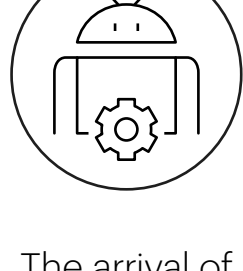
**It is the convergence of these value-added waves that is accelerating the pace and scale of change, making new services a possibility.**

### THE CONCEPT OF THE INTERNET OF HEALTH THINGS IS NOT NEW—

MANY OF THE IDEAS BEHIND IoHT HAVE BEEN WITH US FOR MORE THAN **TWO DECADES.**



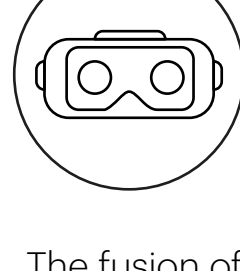
**Smart objects** that are able to help us to understand what we need and when



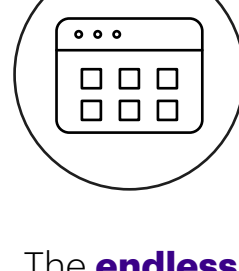
The arrival of **artificial intelligence**



Ubiquitous access to **computing**



The fusion of **physical and virtual reality**



The **endless supply** of information

**Were all being actively discussed as early as the late 1990s.**

## SO WHAT IS NEW?

**The answer is that all of these concepts are now deliverable at scale. It is not only possible to create IoHT services, but it is becoming a business imperative for healthcare organizations.**

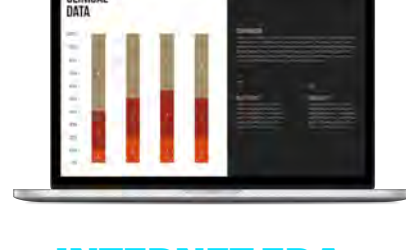


### THE URGENCY RESULTS FROM:

- The digitization of everything
- Consumer expectations that transcend industry boundaries
- Regulatory changes (for example, fee for volume to fee for value)
- Demographic shifts (aging population and the explosion of chronic disease).

**IoHT has evolved through the three waves of digital transformation to open up the possibilities of growth for tomorrow.**

Although IoHT concepts have existed for some time, now new technologies can make these concepts a reality—and at scale. The IoHT era is different from the internet era in several important ways:



**INTERNET ERA**  
Clinical-home connectivity for the few



**IoHT ERA**  
Remote health connectivity at scale

VALUE DELIVERED		
<b>Cost</b>	High	Low
<b>Access</b>	Low	High
<b>Experience</b>	Poor	Good
CONNECT		
<b>Provider/Source</b>	Proprietary device manufacturer	Medical-grade consumer tech
<b>Design</b>	Big and bulky	Miniaturized
<b>Battery</b>	Hours to days	Months to years
<b>User interaction</b>	Active input to light passive	Passive—no user interface
COMMUNICATE		
<b>Communication Networks</b>	Wired to partial wireless	Ubiquitous wireless
COMPUTE		
<b>Data velocity</b>	Episodic/Point-in-time	Continuous time series
<b>Data volume</b>	Low	High
<b>Data variety</b>	Low	High
<b>Analytics</b>	Descriptive	Predictive to prescriptive
<b>Storage</b>	Local with replication	Cloud

### ACCENTURE 2017 INTERNET OF HEALTH THINGS SURVEY

Accenture commissioned an online survey of 77 healthcare payers and 77 healthcare providers in the United States. The survey aimed to understand the current position of respondents with respect to the use of Internet of Health Things technologies and tools and find out what investments they were making and where. Organizations included in the survey had annual revenues of more than US\$50 million and sample job titles were C-suite, mainly CEO and CIO. The overall margin is +/- 8 percentage points at the 95 percent confidence level. The survey was conducted by McGuire Research between January 29 and February 19, 2016.

For more on the survey, refer to "Invest Today to Grow Tomorrow: Accenture 2017 Internet of Health Things Survey."

### FOR MORE INFORMATION

**Brian P. Kalis**

brian.p.kalis@accenture.com

**Ronan Wisdom**

ronan.wisdom@accenture.com

### CONTRIBUTORS

**Kathy M. Andrews**

kathy.m.andrews@accenture.com

**Alyssa Porritt**

alyssa.r.porritt@accenture.com

**Peggy Hsui**

peggy.hsui@accenture.com

### ABOUT ACCENTURE INSIGHT DRIVEN HEALTH

Insight driven health is the foundation of more effective, efficient and affordable healthcare. That's why the world's leading healthcare providers and health plans choose Accenture for a wide range of insight driven health services that help them use knowledge in new ways—from the back office to the doctor's office. Our committed professionals combine real-world experience, business and clinical insights and innovative technologies to deliver the power of insight driven health. For more information, visit: [www.accenture.com/insightdrivenhealth](http://www.accenture.com/insightdrivenhealth).

### ABOUT ACCENTURE

Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions—underpinned by the world's largest delivery network—Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With approximately 384,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Visit us at [www.accenture.com](http://www.accenture.com).

Follow us on Twitter:  
[@AccentureHealth](https://twitter.com/AccentureHealth)