ASEAN IVO Forum 2016

IoT based Platform for Personal Healthcare Applications

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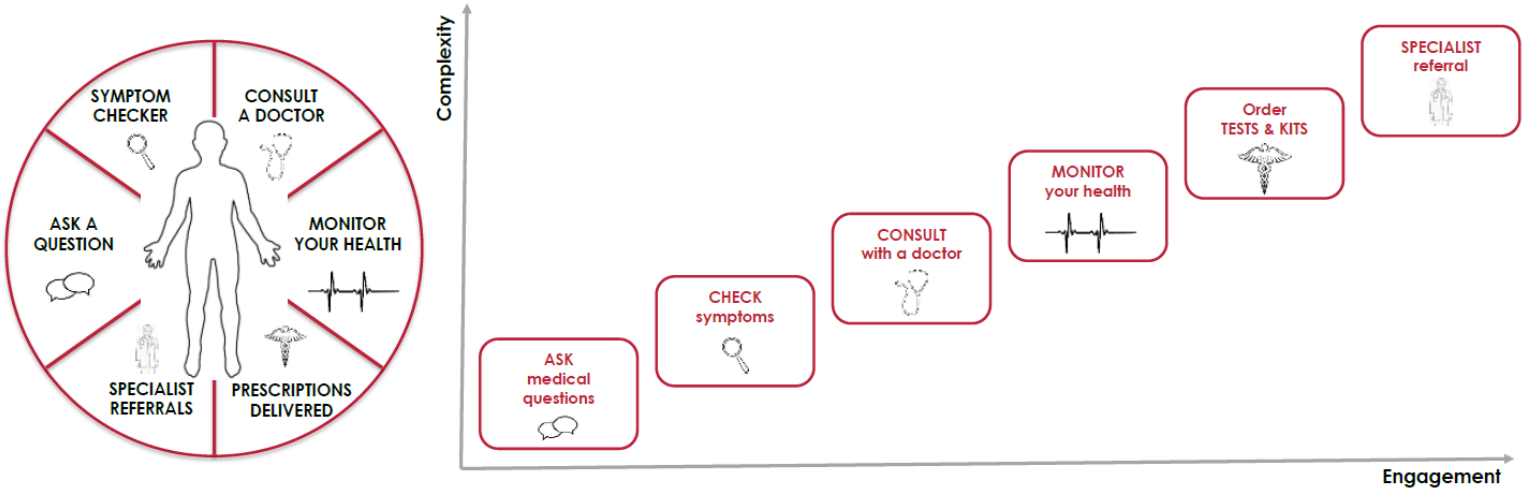
Digital Healthcare *(1)*

End-to-end healthcare solution



Source: GP Bullhound. *Digital Healthcare*. Independent Technology Research Report, Nov. 2015.

Digital Healcare Market

Potential economic impact
$ billion annually

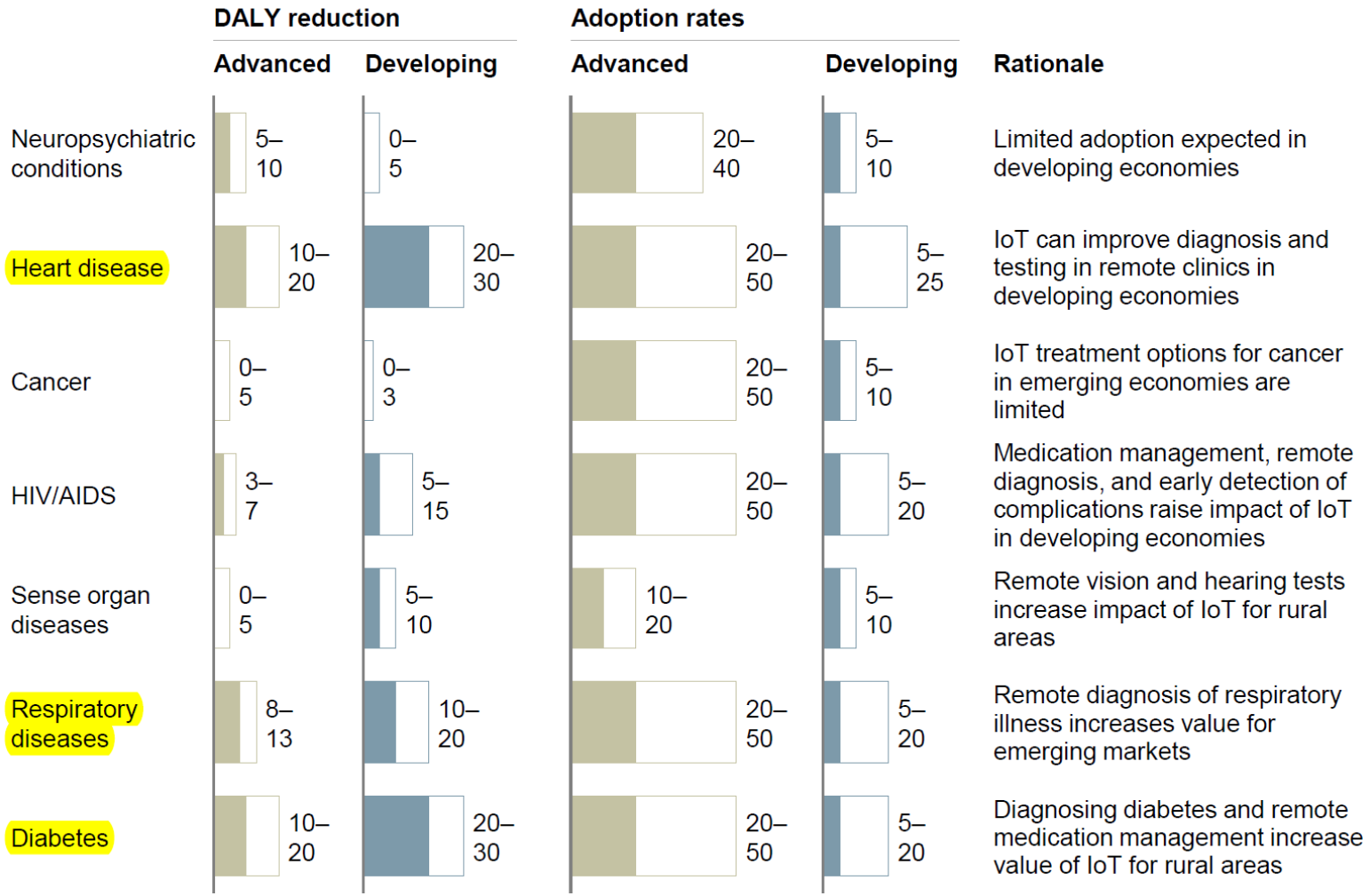
Sized applications	Total = $170 billion–1.6 trillion	Assumptions	Potential value gain[1]
Monitoring and treating illness	171–1,068	$15 trillion in annual health-care costs; 770 million lost DALYs; 10–40% of acute patients affected	Up to 20% reduction in disease burden
Improving wellness	0–519	1.3 billion people with fitness trackers by 2025; adoption rates of 10–56%, depending on region	$80–600 per year in wellness benefits per user

Source: J. Manyika *et al*.. *Internet of Things: mapping the value beyond the hype*. McKinsey Global Institute, San Francisco, CA, June 2015.

Digital Healthcare *(2)*

Overall impact based on DALY loss reduction

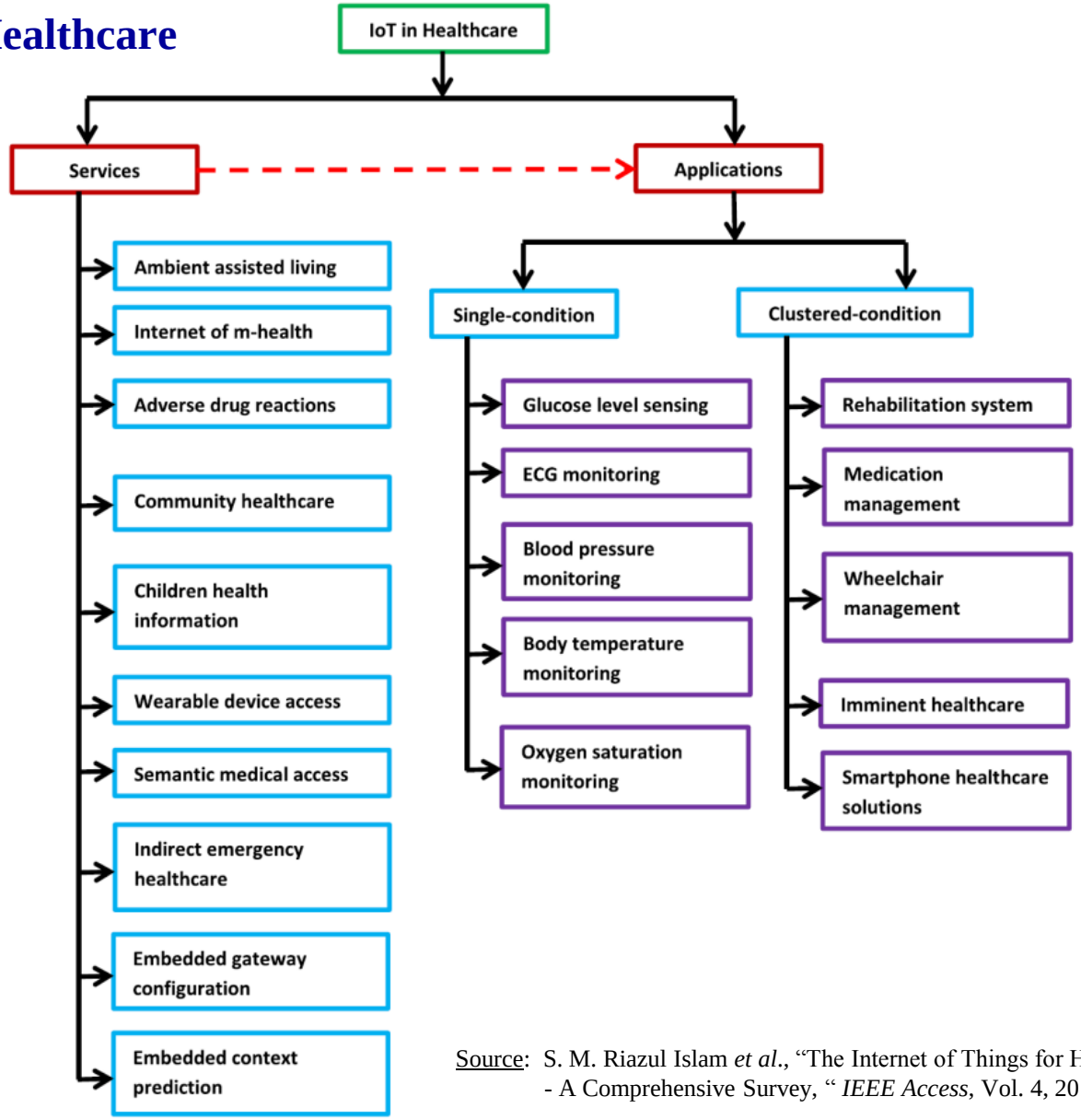
% improvement



Source: J. Manyika *et al*.. *Internet of Things: mapping the value beyond the hype*. McKinsey Global Institute, San Francisco, CA, June 2015.

Digital Healthcare *(3)*

- **IoT in Healthcare**



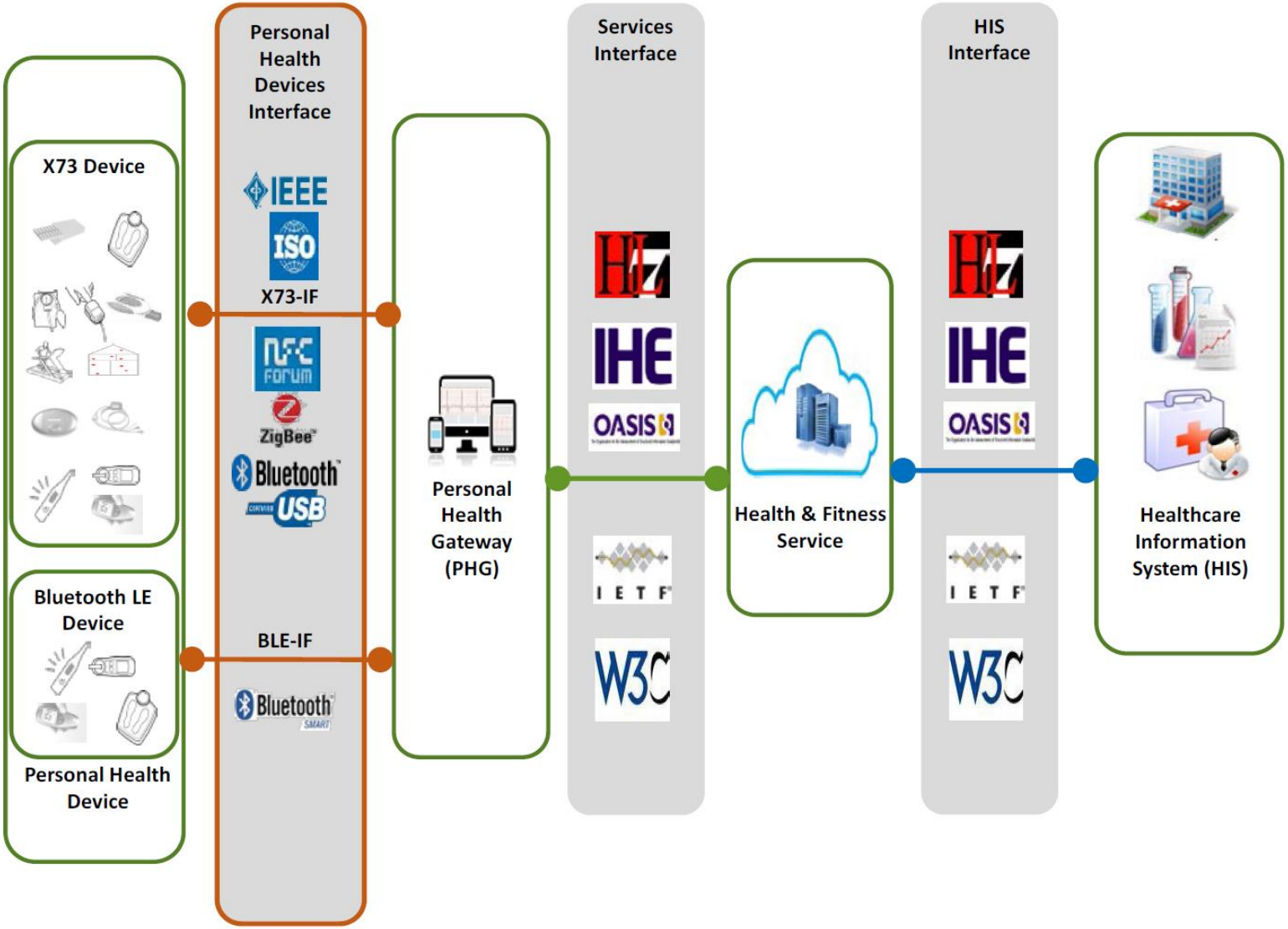
Source: S. M. Riazul Islam *et al*., "The Internet of Things for Health Care - A Comprehensive Survey, " *IEEE Access*, Vol. 4, 2015.

Proposed IVO joint R&D project

- **Project:** *"IoT based Platform for Personal Healthcare Applications*
- **Objectives**
  - *To build an IoT based platform for personal health care applications for smart communities / smart cities*
  - *To deploy the platform in ASEAN countries*
- **Contents**
  - *Investigating solutions for personal health care applications.*
  - *Developing an IoT based platform for personal health care applications (see the next slide)*
    - IoT based Personal Gateway (PHG)
    - Networking Solutions (Personal Health Devices Interface, Services Interface)
    - Health analytics system (Health & Fitness Service)
  - *Setting up a trial of the platform in ASEAN countries*
    - Local VNU testbed
    - VNU – NICT – ASEAN IVO members testbed.
  - *Building applications models for deploying the platform in ASEAN countries.*
- **Expected outcomes**
  - *Solutions for personal health care applications.*
  - *IoT based platform for personal health care applications.*
  - *Models for deploying the platform in ASEAN countries.*

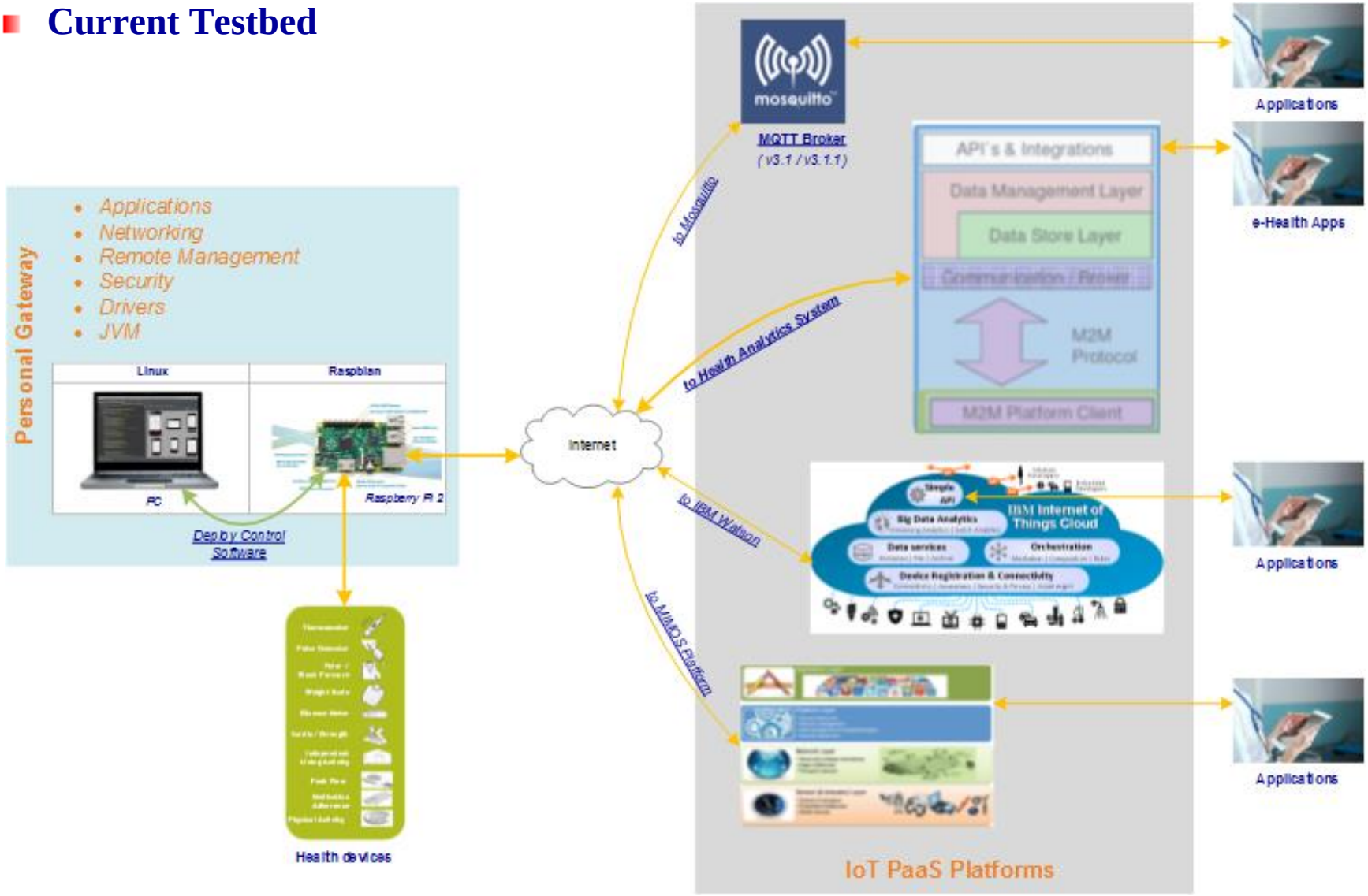
Implementation Approach *(1)*

- **Supporting ITU-T H.810-series standards**



Implementation Approach *(2)*

- **Current Testbed**



Thank you !

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