A new vision for Healthcare and Life Sciences

**Edge and IoT solutions**

Where we are now

- **Patient data**
  - 27 years
  - 1 Tbps

- **IoMT devices per U.S. hospital bed**
  - 8 devices

- **Average number of connected IoT systems**
  - 30%

- **Healthcare and life sciences**
  - 10,000,000
  - 175,000,000

- **Healthcare breaches 2018**
  - 878%
  - 3,000,000

- **Healthcare records exposed by breach 2009–2016**
  - 98%

- **US physicians report burnout**
  - 30%

- **Projected medical and nursing jobs unfilled by 2035**
  - 44%

- **Number of US physicians**
  - 1,290,000

**The opportunities**

- **Organizational agility, clinical outcomes and professional staff effectiveness through Edge and IoT, software, and insights**

- **We help you innovate, delivering new capabilities quickly and cost-effectively to respond to changing demands.**

  
  Improve outcomes, reduce routine and non-remunerated concierge and subscription healthcare models.

**The technologies**

- **Solutions built for healthcare and life sciences**
  - Data-driven, digital future, with flexibility to create the foundation for your business.

- **Solutions scale to every**
  - Hospital operations and logistics
  - Drug management
  - Wellness and preventative care
  - Remote assisted living
  - Chronic disease management
  - Point-of-care management and predictive medicine
  - Drug management

**The Internets of Medical and Healthy Things**

- **EDGEX FOUNDRY**
  - VMware Pulse
  - Dell Boomi

**SIX USE CASES**

1. **Computer vision**
   - Revenue optimization and supply chain management
   - Fraud detection and prevention
   - Image processing and analysis

2. **Edge analytics**
   - Patient monitoring and care improvement
   - Medical image analysis for diagnostic support
   - Real-time decision support for clinical interventions

3. **AI and Machine Learning**
   - Personalized treatment recommendations
   - Predictive analytics for patient outcomes
   - Clinical decision support systems

4. **Computer vision**
   - Security and surveillance
   - Video analytics for patient safety
   - Face recognition for access control

5. **IoMT**
   - Patient monitoring and care improvement
   - Medical image analysis for diagnostic support
   - Real-time decision support for clinical interventions

6. **SIEM**
   - Security visibility and data protection
   - Incident response and containment
   - Compliance and regulatory requirements

**Where we are now**

- **Data-driven digital future with flexibility to create the foundation for your business.**

- **End-to-end security protects**
  - Patient data
  - Critical applications
  - Non-critical applications

**Pre-tested, simple install and scale.**

**Endpoints**

- **Digitization of processes**
  - 72 years
  - 75%

- **Global life expectancy, up 5.5 years 2000-2016**
  - 72 years

- **People over 65 by 2050**
  - 25%

- **MEDICAL AND LIFE SCIENCES DATA GROWING EXPONENTIALLY**
  - 89%

**DEMOGRAPHICS ARE CHANGING**

- **Shrink workload and simplify operations**
  - 59%

- **Healthcare breaches 2018**
  - 878%

- **Healthcare records exposed by breach 2009–2016**
  - 98%

- **US physicians report burnout**
  - 30%

- **Projected medical and nursing jobs unfilled by 2035**
  - 44%

**Ancestral and cultural**

- **Aging with multimorbidity: a systematic review of the literature.**

**5.**


**6.**

- **https://www.who.int/gho/mortality_burden_disease/life_tables/situation_trends_text/en/**

**7.**

- **https://www.who.int/healthinfo/global_burden_disease/health-workforce_report/en/**

**8.**

- **https://www.population.un.org/wpp/1950-2050/table/6/2/1**

**9.**

- **Institute of Medicine (US) Roundtable on Research and Development of Drugs, Biologics, and Medical Devices**

**10.**

- **https://www.ncbi.nlm.nih.gov/books/NBK224576**

**11.**


**12.**

- **https://www.gartner.com/smarterwithgartner/what-edge-computing-means-for-infrastructure-and-operations-leaders**

**13.**