Sentara’s Digital Vision for the Future: A DevSecOps Story

Natalie Kaszubowski, VP Software Development
Jeff Thomas, VP & CTO
Dan Bowden, VP & CISO
<table>
<thead>
<tr>
<th>130-YEAR</th>
<th>8</th>
<th>Sentara College of Health Sciences</th>
<th>300+</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not-for-Profit Mission</td>
<td>Magnet Nursing Hospitals</td>
<td>Sites of Care</td>
<td>Hospitals</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2,758</th>
<th>3,800</th>
<th>11</th>
<th>28,000+</th>
<th>2nd Largest</th>
<th>4th Largest</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beds</td>
<td>Physicians</td>
<td>Long-Term / Assisted Living Centers / PACE</td>
<td>Employees</td>
<td>Employer in Hampton Roads</td>
<td>Employer in Virginia</td>
<td>Medical Groups</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>500,000</th>
<th>$6 Billion</th>
<th>Aa2/AA</th>
<th>$364,956M</th>
<th>$7.4B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Member Health Plan</td>
<td>Total Operating Revenues</td>
<td>Bond Ratings</td>
<td>2017 Community Benefit</td>
<td>Total Assets</td>
</tr>
</tbody>
</table>
“Sentara will create a dynamic health model by developing digital and consumer-based solutions, restructured wellness and ambulatory platforms, acute and chronic care programs integrated with our managed care strategy.”

— Howard Kern, President & CEO Sentara Healthcare
**Mission**
We improve health everyday

**Vision**
Be the healthcare choice of the communities we serve

**Values**
People, Quality, Safety, Service, Integrity
DIGITAL HEALTHCARE EVOLUTION

**Horizon 1: Evolution**
- Interconnected, integrated, hospital-centric systems focused on high performance and population health

**Horizon 2: Transformation**
- Consumer-centric, health ecosystems building on core performance through scale and partnerships across care continuum

**Horizon 3: Revolution**
- Fundamental shift in health system identity towards becoming orchestrators of health, risk and lifestyle choices for consumers in fundamentally new market spaces
Customer Experience:
• More than 50% of healthcare interactions will be virtual

Digital ecosystem:
• Remove friction and transition from transactions to relationships
• Enable new partnerships and service

Transforming healthcare culture:
• Re-imaging healthcare services to meet consumer expectation
To get a personalized experience, we will need partnerships and an ecosystem of microservices.
WHY CLOUD?

**Lower Total Cost of Ownership |** The cost of maintaining and expanding on-premises datacenter is much higher than with cloud storage and virtual servers.

**Increased Agility |** Using disparate IT technologies hinders business efficiency, collaboration, and agility. Cloud helps us deploy new technologies and services.

**Resiliency and Availability |** Disaster recovery in a physical environment is cost prohibitive. Cloud provides an infrastructure for DR at 99.999% availability.

**Innovation and Analytics |** Cloud allows us to cost effectively deploy new technology and “fail fast fail forward” innovate and data analyze.
 Managed eHealth Platform
 eHealth Platform architected to support all healthcare security and compliance requirements

 Elastic Scalability
 Global platform provide continuous automated deployment and management capabilities

 Secure Cloud Framework

 Future capabilities as a service
 Deconstructed PACS
 Microservices Platform
 Secure API integration
 Advanced Data Analytics
 Healthcare AI

 OUR CLOUD VISION
Customer Engagement
In-depth understanding of our customer through frequent engagement

Cloud First
Leverage Amazon, Microsoft, and Google cloud

Digital Health
Delivering healthcare in new ways

Consumer Data
Insights to improve customer experience and reach new customers
Responsibility Zones

Always retained by customer

Varies by Service Type

Transfers to Cloud Provider

Microsoft
Government

CLOUD SECURITY
TOOLS AND OWNERSHIP

Microsoft, IBM, Cobalt, others
QUESTIONS?