



# OAGM Contractors Conference



**Tony Trenkle**

Chief Information Officer and Director,  
Office of Information Services

# IT Priorities for 2013-2015

- Meet the IT needs of health reform
  - Insurance Marketplace
  - Innovation Center
- Maintain “classic” CMS service levels
- Fully implement and integrate shared services
- Maximize the Virtual Data Center initiative
  - Consolidate data centers
  - Implement cloud solutions as applicable

# IT Priorities for 2013-2015 (cont.)

- Manage IT Portfolio more strategically
- Improve IT Security
- Treat data as an asset but ensure safeguards
- Meet Employee Needs

# Healthcare in 2018

- CMS is very driven by legislative mandates and associated timelines. Need to balance short-term requirements vs. need to ensure that CMS can meet the requirements of the future world created by health reform
- CMS in 2018 will have to deal with:
  - Continuing cost pressures driven by demographics, technology, personalized medicine, and other drivers
  - Static or declining budgets as a result of the fiscal climate
  - An increasingly hybrid payment world (fee-for-service vs. pay for performance)
  - Expanded beneficiary population
    - Medicare demographics
    - Medicaid expansion
  - Growing amount of data collected and increased data demands to drive payment and healthcare policies
  - Increasing role in the health insurance world
    - Insurance exchanges
    - More oversight

# IT Needs for 2018

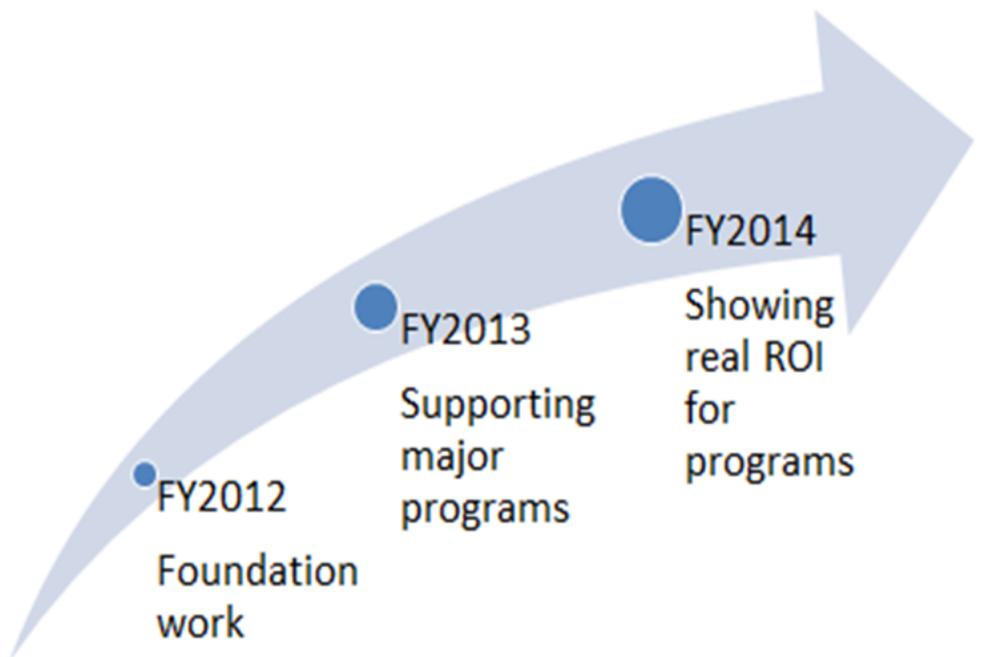
- Ability to manage more data and different types of data to support increased analytic needs
- Take advantage of cloud and other technologies to create more agile platforms and cost-efficient solutions to meet larger and more complex programmatic demands
- Maximize the use of enterprise shared services to provide a consistent level of support across programs
- Growing employee needs for “consumer IT”
- Meeting increased security and privacy threats

# Shared Services

# Enterprise Shared Services

- What: Scalable, reusable business/technical solutions that serve multiple business processes
- Why: Tight budgets, need to leverage solutions across business lines and enhance interoperability
- Four initial “big hitters” selected to be implemented
  - Enterprise Identity Management (EIDM)
  - Enterprise Portal
  - Master Data Management (MDM)
  - Business Rules Engine (BRES)
- Recently added Enterprise Eligibility Services (EES)

# Stages of Shared Services



- ❑ **FY 2011 and 2012:** Foundational development work
- ❑ **FY 2013:** Shared services become operational and available to support key agency initiatives.
- ❑ **FY 2014:** Continue onboarding of new users and the track program savings to demonstrate ROI.

# Virtual Data Center

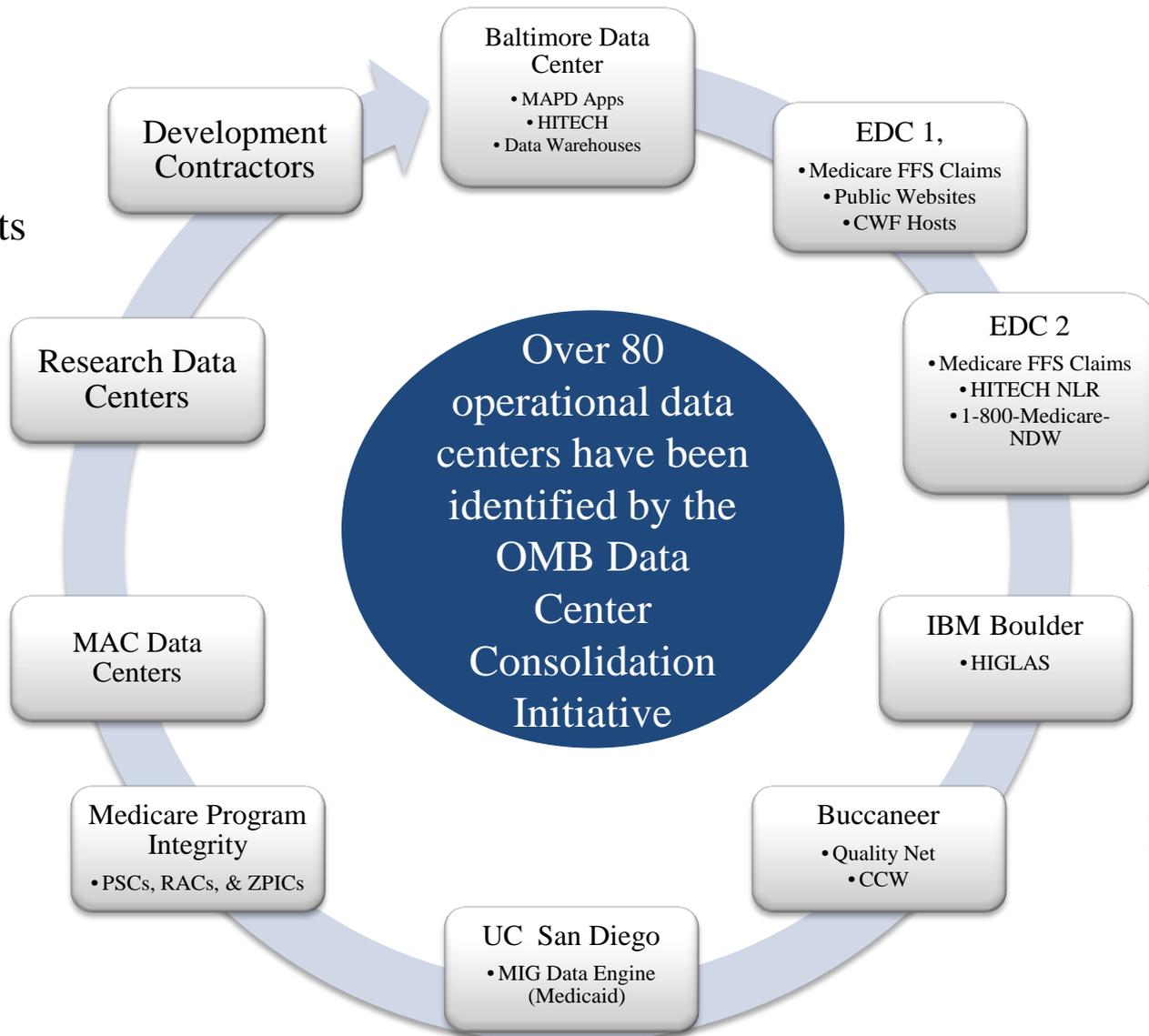
# Current CMS Data Center Environment

Mixture of Direct and Indirect Contracts

Varying pricing and ownership models across data centers

Inefficient use of computing resources

Inconsistent requirements for security, architecture and Software Development Life Cycle (SDLC)



# VDC Overview

## VDC Goals & Desired Outcomes

- **Agility & Flexibility:** Ability to meet tight timelines by providing a reliable and flexible procurement vehicle to support the business needs of CMS
- **Stability & High Availability:** Standard, repeatable processes that adhere to CMS' mandated requirements and industry best practices for hosting services to provide consistent and stable operations
- **Scalability:** Ability to leverage virtualization and the use of Cloud Computing, where appropriate, to establish elastic provisioning
- **COOP & DR Functionality:** Ability to establish interoperable enterprise computing between VDCs to implement COOP/DR/High Availability when required to meet mission critical business needs

# VDC Strategy

## CMS Data Center Consolidation Strategy

- Establish the VDCs as the **preferred Agency data center hosting contract vehicle**
- **Align workloads** and develop VDC Task Orders by Business Line, Hosting Platform, or Operational Cluster to reduce redundant hardware investments and build increase business knowledge of the workloads being hosted by the VDC
- **Collaborate with CMS Business Owners** and appropriate governance boards to prioritize workloads to be migrated into the VDCs for consolidation
- **Establish clear roles, responsibilities, and expectations** by developing Project Scope Agreements between OIS and the System Owner as well as Task Order specific Service Level Agreements (SLAs) with the VDC
- **Promote the use of Green IT** by reducing the overall energy and real estate footprint of government data centers leveraging efficient and innovative technology platforms through virtualization
- Shift IT investments to **more efficient computing platforms and technologies**

# IT Portfolio

# FY 2012 IT Budget by funding source (\$ in Millions)

Funding Source	FY 2012 Actual Obligations
CMS Program Management Appropriation	1,110.7
Other Funding Sources:	
QIO	191.0
*Program Integrity	184.0
Small Business Jobs Act of 2010	39.3
ESRD/RAC Coll./User Fees	34.5
ARRA	81.9
ACA Direct Approp. Admin (mainly CMMI)	94.9
MIPPA	18.7
<b>Subtotal, Other Sources</b>	<b>644.3</b>
<b>Grand Total, All Sources</b>	<b>1,755.0</b>
* P.I. Includes both Mandatory & Discretionary Medicare & Medicaid, and the Medi-Medi Funding Sources	

# Portfolio Management

## Aligning Business Needs with IT Investments

- Data-driven analyses of historic funding and spending patterns across entire CMS portfolio frame the key business and investment decisions
- Frame budget decisions based on aligned business and IT transformation strategies
- Model benefits, costs and risks based on business needs and technology options
- 3-R's – Reuse, Renegotiation, Reinvestment
- Successful portfolio management requires partnership among Operations components and will improve CMS programs

# IT Security

# CMS Information Security

- FISMA and FedRAMP
  - FISMA: Information systems must be documented, assessed, authorized to operate (ATO) by the CMS CIO, and continuously monitored
  - FedRAMP: Standardized approach to security assessment, authorization, and continuous monitoring for cloud products and services
- All CMS Information Technology (IT) contracts will contain a standard FISMA and FedRAMP compliance requirement
  - <http://www.cms.gov/informationsecurity>

# CMS Information Security

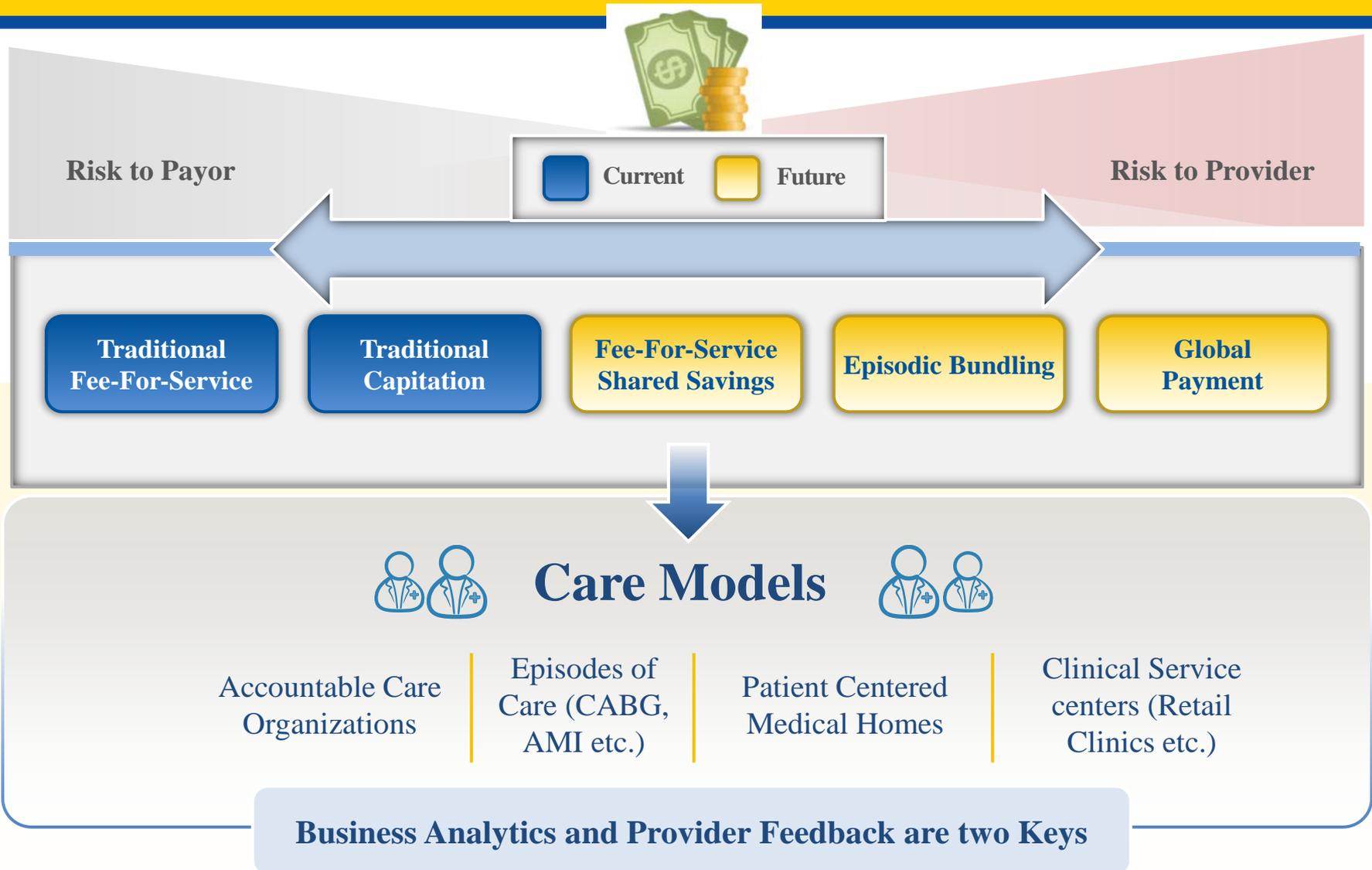
- Security Operations
  - Security Operations Center (SOC)
  - Continuous monitoring program
  - Forensics and malware analysis
  - Penetration testing
- Security Policy and Compliance
  - Governance and oversight
  - Security assessments
  - Awareness and training
  - Compliance and oversight

# Data Management

# Big Data at CMS

- Currently, we store and maintain:
  - ½ a terabyte of healthcare claims data each month (roughly 1.7 million pieces of 8 1/2 x 11 paper)
  - 370 terabytes of Medicare claims data
  - 30 terabytes of Medicaid claims data
  - 10 terabytes of unstructured data
  - Various types of quality and encounter data
- By the end of 2015:
  - Medicare Claims Data will reach approximately 700 terabytes
  - Medicaid Claims Data will reach approximately 100 terabytes
  - Increased amount of quality and encounter data to service new payment models.

# Payment Mechanisms are Shifting



# Supporting CMS Data IT Needs

- Utilizing new technologies e.g. Hadoop
- Strengthening data architecture
- Partnering with OIPDA on data warehouse and ecosystem strategies as well as governance
- Improving data quality
- Implementing more effective data management enterprise tools e.g. MDM, BI portal etc.

# Mobility

# Enabling Mobility through Technology

- Teletwork Enhancements
  - 100% Deployment of laptops
  - Desktop Video and Instant Messaging
- Bring Your Own Device – BYOD
  - Consumerization
  - The Smartest Phone
  - Too many devices

# Future Trends

- Software as a Service
  - Email in the Cloud
  - Cloud based Collaboration
- Chasing Security
  - HSPD-12 and advances in Mobile Security
  - Supporting iOS

# Working with the Contracting Community

- Health Reform timelines and requirements create a lot of pressure so more important than ever for the contractors to work closely with the COR and GTL
- Software vendors-don't just sell the product- support the SI's implementation. SI's need to reach out to software vendors and bring them in a sub if necessary.
- Open dialogue is critical. Mutual respect is mandatory. Contract performance issues and potential cost overruns should not be surprises. I want my staff to be fair but evaluate performance honestly.

# Working with the Contracting Community

- Support small businesses (over 35% over IT awards) but contracting strategy needs to prioritize how we can meet business requirements most efficiently and effectively.
- Procurements
  - Award on initial bids when possible
  - Will publish draft RFPs when possible and practical
  - Have approved cost and price accounting systems