The Technology Circus: How to Bring it All Together

Alan Tacy – Infrastructure Practice Lead
Why Are We Here?

- Identify the forces driving our Information Technology strategic plans
- What are some practical steps that can focus our Information Technology efforts
- Rethink how we think about Information Technology costs
What is “The Technology Circus”?

- Appears dazzling and amazing but is coordinated, precise, and well managed
- A lot of variables, apposing forces and little room for costly errors
- Lead by a ring master that sees the greater picture of the entire production and is able to pull each piece together
Who Is Your Presenter?

• Background

  – Degree in Economics
  – Over 12 years in Information Technology
    • From Helpdesk to IT Director
  – Started with support software development
  – Moved to Medical IT more than eight years ago, becoming an advocate for EHR
Who Is Your Presenter?

Beliefs and Convictions

- Information Technology is more about people than Technology
- All medical businesses, for-profit and non-profit, are still businesses
- Medical IT people must be able to build bridges between technology and staff workflows
Setting the Stage
The Three Ring Circus:

Think about your business and what relates to you...

1. Technology
2. Regulators
3. Patient Demands (and Their Families)
Setting the Stage
The Three Ring Circus: Technology

- PC (Desktop)
- Laptop
- Printers
- Terminal Station
- Tablet
- Smart Phone

- Scanners
  - Cards and Paper
- EKGS
- Holter Monitors
- Spirometers
- BYOD Access
Setting the Stage
The Three Ring Circus: Technology

- Domain Controllers
- Email Servers
- File Servers
- Print Servers
- Database Servers
- Electronic Medical Records
- System Interfacing
  - External and Internal
- ePrescribing
- Virtualized Servers
- CRMs – Customer Relationship Management
- Analytics Systems
Setting the Stage
The Three Ring Circus: Technology

- Internet
  - Web Site
  - Patient Portals
  - Social Networking
  - Streaming Media
  - Remote Connectivity

- Integrated Texting and email systems
- Health Exchanges
- Electronic Signature Capture
Setting the Stage
The Three Ring Circus: Regulators

- HHS – Health and Human Services
- CMS – Centers for Medicare and Medicaid Services
- DSHS – Washington State Department of Social and Health Services
- HIPAA
- 4010 to 5010
- ICD-9 to ICD-10
- Meaningful Use
- CCHIT Certified® program, a rigorous inspection of integrated EHR functionality, interoperability, and security
Setting the Stage
The Three Ring Circus: Regulators

- A lot of rule makers and regulators
- A lot of rules and regulation
- An ever evolving set of standards for staff
- More work and less time to do it in
- Constant changes to EHRs and their supporting applications
- An ever growing dependency on Information Technology
- COST, COST, and COST
Consistent Application of Contradictions

- Mandatory Rules and Regulations
- Personalize Medical Records and avoid “canned” charting
- Provide interoperability, portal accessibility
- Constantly moving deadlines and enforcement policies
- EHR reportable standards with measurable statistics
- Over 20 million individuals affected by hacking / IT incident breaches
Beyond the Cost of Doing business

April 18, 2012

- Office for Civil Rights (OCR) of the Department of Health and Human Services (HHS) executed a Resolution Agreement for fines of $100,000
- Leveraged email and group calendar functionality as well as:
  - Failed to implement adequate polices and procedures to appropriately safeguard patient information;
  - Failed to document that it trained any employees on its policies and procedures on the Privacy and Security Rules;
  - Failed to identify a security official and conduct a risk analysis; and
  - Failed to obtain business associate agreements with Internet-based email and calendar services where the provision of the service included storage of and access to its ePHI

Still required to meet compliance standards!
Setting the Stage
The Three Ring Circus: Patients and their Families

- **On Line Services**
  - Electronic bill pay
  - Secure messaging

- **On Site Services**
  - Wi-Fi Internet
    - Public Access
    - Resident
  - Media Streaming
    - Netflix

- **Quality of Care**
  - Associated with technology
  - Marketing of major Providers set the standard
  - Statement of security and consumer confidence
Bringing it all Together

The Ring Leader:

• It is not about Fear, it is about honestly assessing the challenges
• It is not about the Technology, it is about the people
• The environment for the Medical Industry demands even small and medium size businesses act like Corporate Enterprises
• Someone must be your advocate
Bringing it all Together

The Ring Leader:

• Who is the CIO?

  – “The person in an enterprise responsible for the Information Technology and computer systems that support the organization’s goals”

  – “Analyze and rework existing business processes by identifying and developing technical systems and solutions that meet efficiency and financial goals”
Bringing it all Together

The Ring Leader:

- In other words the CIO is...
  - The advocate that makes sure the IT systems have *purpose* and work *towards a goal*.
  - The advocate who understands the *flow of data* through the organization and within the *budget* available, is implementing the solution providing the *greatest overall benefit*.

- And EVERY medical organization needs one!
Bringing it all Together
The Ring Leader:

- The CIO Inverts IT decisions
  - IT Road Mapping
    - Where you want to be?
  - Work backwards to define the foundations of the Infrastructure
  - Each solution must build towards the end goal
Bringing it all Together
The Ring Leader: Practical Steps Forward

- **Total Cost of Ownership**
  - Price of solution
  - Cost of maintaining solution
  - Expected length of service
  - How will staff be impacted
  - How many will impacted

- **Case Study**
  - The desktop
    - Standardization
  - The proxy server
    - Control Internet traffic
  - Warrantees (Time is money)
Bringing it all Together
The Ring Leader: Practical Steps Forward

• IT Staffing
  – Information Technology professionals are in high demand
  – Medical IT in high demand among IT professionals
  – Evaluate your road map, define your needs

• Jack of all trades is a master of none
  – Helpdesk
  – System Administrators
  – DBAs
  – Network Engineers
  – System Engineers
  – Application Specialists

• Staff for the middle
Bringing it all Together
The Ring Leader: Practical Steps Forward

- Perform an Assessment of your environment
  - Diagrams
    - WAN topology
    - System interoperability
  - Documentation
    - Warrantees (expiration)
    - Vendors (contact information)
  - Define single points of failure and risk assessment (Red Flag List)

- Assessment sets the foundation for your roadmap
- Aids in project planning and solution rollouts
- Maintains Accountability
• Be cautious of tech trends
  – VHS vs. Beta
  – From VHS to DVD
• What is the “Cloud”?  
  – Private vs. Public
  – All included not always a good thing
  – Renting vs. owning

• Invest in technology
  – Know your roadmap
  – Assess the ROI for solutions
• Find those winning the battle of regulation management
• Interoperability is a requirement for the future
Technology is Just a Tool
It’s About the People!