

# **CHARTING A COURSE TO MEANINGFUL USE**

**STRATEGIES FOR LEVERAGING TECHNOLOGY TO  
IMPROVE PATIENT CARE &  
MEET COMPLIANCE INITIATIVES**

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**PLATFORM  
SOLUTIONS**

# Session Overview



- ❖ **Charting a course to meaningful use and leveraging technology to improve patient care**
- ❖ **Case Study: Boston-based Community Health Center**
  - Upgrading their EMR system to improve performance, leverage new features/functions
  - Creating business processes to meet meaningful use Stage 1 Measure 15 requirements, including management of healthcare compliance policies and procedures
  - Creating a road map for the design and deployment of a "Medical Ready" network infrastructure to meet the ARRA funding requirements
  - Moving to a turnkey medical ready network infrastructure platform to support EMR systems

# Case Study

- ❖ Boston-based Community Health Center
- ❖ Early adopter of Electronic Medical Records
- ❖ In 2010, determined the need to upgrade to the latest version of to support meaningful use and meet HIPAA HITECH compliance
  - Worked with consultants to create business processes to meet meaningful use Stage 1 Measure 15
- ❖ Key Finding: Determined current infrastructure was below the requirements for the new EMR platform

# Project Objectives

**CHC embarked on a project to create a Medical Ready network that would meet the following objectives:**

- ❖ Comprehensive solution that includes discovery, preparation, design, implementation, migration, monitoring and support
- ❖ EMR system must meet or exceed 99.99% up-time during business hours
- ❖ From the end-users' perspective, the system must result in a perceptible increase in flawless operation and a decrease in system functionality interruptions
- ❖ Support CHC in achieving best in class:
  - Service level to its end users
  - Data security, redundancy and disaster recovery
  - HIT hardware platform life cycle management
  - Operating system currency consistent with the EHR vendor's specifications
- ❖ Provide a cost-effective solution that meets the financial goals of the health center
- ❖ Provide timely program modifications and upgrades in response to changing industry needs, regulatory requirements, and advancing technology

# Readiness Assessment



## ❖ First Step – Readiness Assessment

- CHC engaged Platform Solutions for a network/security readiness assessment and gap analysis to create a road map for the design and deployment of a “Medical Ready” network
- Required the reliability and security to meet ARRA funding requirements for meaningful use

# Security Assessment



- ❖ **What does a Security Assessment consist of?**
  - Detailed assessment of vulnerabilities in your environment scored against HIPAA requirements
  - Interview of staff on Policy and Controls necessary for Measure 15
  - Executive summary outlining the findings by risk level with proposed solutions

# Security Assessment



- ❖ **Vulnerability Management Scan**
  - Industry tool using HIPAA compliance template
  - Obtrusive scan on all network objects
  - Data ranked by risk and outlined in an executive summary

# Security Assessment



## ❖ Policy and Control Review

- Staff interview to review what policies and controls CHC has documented
- Review of documented policies and controls with recommendations

# Security Assessment



## ❖ Measure 15 Policies and Controls

- Sanction Policy
- Risk Analysis
- Termination Procedures
- Access Authorization Policy
- Security Awareness\Training Policy
- Password Management Policy
- Security Incident Reporting
- Disaster Recovery Plan
- Data Backup Plan

# Security Assessment



## ❖ Physical Controls Review

- Facility Access Controls
- Device and Media Controls
- Encryption Controls
- Disposal Policy

# Security Assessment



## ❖ Making your policies and procedures usable and auditable

- On-line system to present and account for policies and procedures
- Easy way to disseminate changes and track auditing
- Best practices to make sure policies and procedures are not just an exercise

# Network Assessment



- ❖ **What does a Network Assessment consist of?**
  - 2 week scan to understand traffic patterns and possible issues
  - Validate of network layout and configurations
  - Detailed report on remediation

# Qualifications Phase

- ❖ Health Information Technology platform is assessed as to size, complexity, LAN/WAN structure, stakeholder assessment
- ❖ Measure 15 objectives, HIPAA law and regulation, “Red Flag” rules are reviewed
- ❖ Objective is to obtain initial reading of the current state of HIT security and privacy operations

# Data Collection Phase

- ❖ Assessment tools attached to the HIT infrastructure
- ❖ Gain statistically valid data concerning the various aspects of the HIT system
- ❖ Assessment dimensions include:
  - Intrusion vulnerability
  - Bandwidth capacity and demand
  - Peak load frequency
  - System inventory
  - System currency (hardware, network and software)

# Organizational Assessment Phase



- ❖ Include a multi-layered review and assessment scan of data security practices at the provider organization and sites to identify risk and compliance behavior
  - Perform an assessment through the following activities:
    - Interviews with management staff and key operations and work flow staff
    - Review includes performance expectations and assessments, handbooks and committee functions
    - Organizational capabilities, practices, training and resources
    - Incident response plan including assessment and follow up steps

# Recommendations Phase

- ❖ Gaps against best practices, policies, procedures and technology standards
  - Risk Plan and Mitigation recommendations
  - Tool kit will be provided with educational materials on requirements and guidance on recommended ongoing training activities and orientation of new staff along with sustainability best practices
- ❖ Meaningful Use implementation and assessment project plan
- ❖ Ongoing best practices and continued training

# Embracing the Private Cloud



- ❖ CHC chose to explore alternatives to maintaining the hospital's EMR infrastructure in-house
- ❖ Private cloud core objectives
  - Provide highest levels of end-user system reliability/availability
    - High availability system architecture
  - Applications to be located in a proven data center
    - 99.99% uptime SLA
  - Applications, data center and services team have regional accessibility
    - Network latency, customer service
  - Relieve CHC of ownership and maintenance of Data Center IT hardware
    - IT as a service
  - Manage and maintain system level O/S maintenance
    - Upgrades, Patches, Reboots, Backups- testing, Failover DR testing
  - Ensure CHC Data Centers meet State and Federal HIT security guidelines
    - HIPPA HITECH, CRM 17

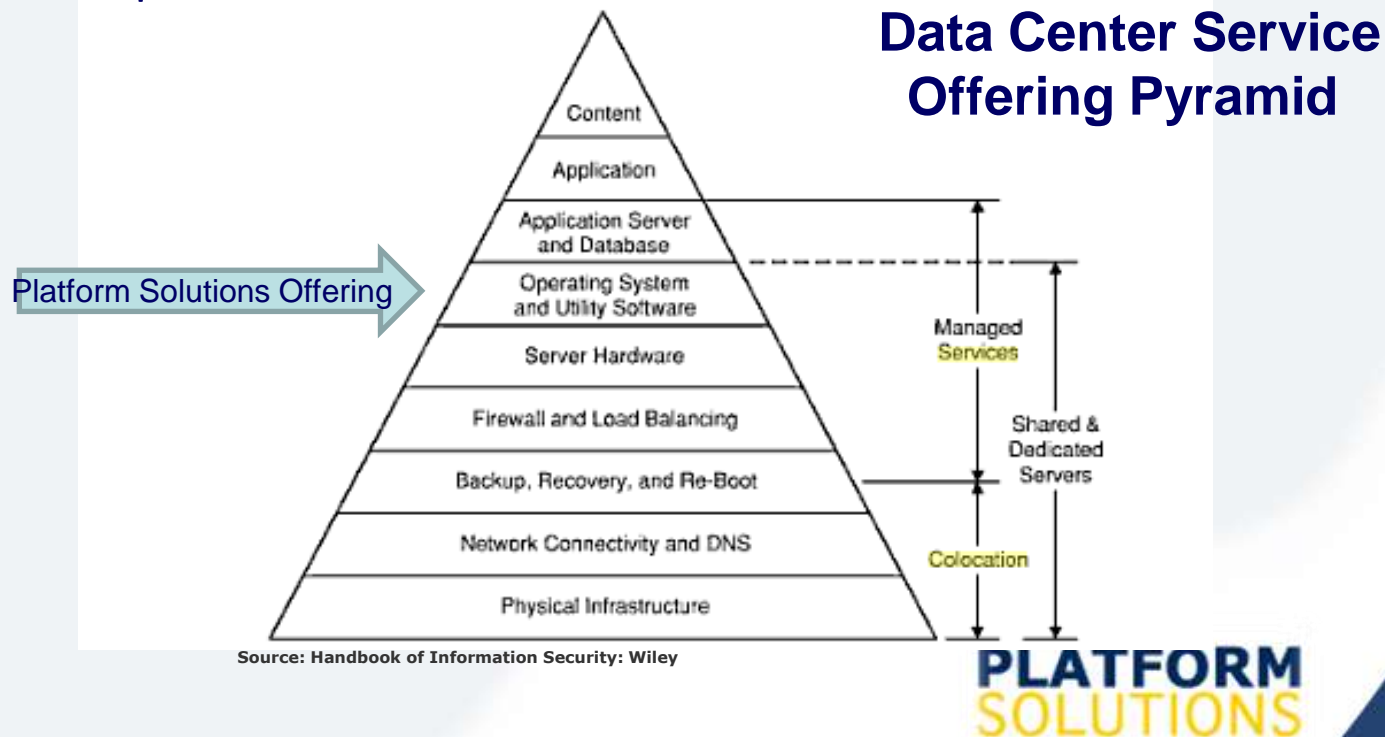
# Fully Managed EMR Infrastructure Solution



- ❖ Comprehensive managed service offering providing turnkey medical ready network infrastructure platform to support EMR systems – no hardware or software to buy
- ❖ Built in accordance with meaningful use Measure 15 and HIPAA HITECH requirements
- ❖ HIPAA HITECH–compliant security infrastructure to protect private health information
- ❖ Full business continuity/disaster recovery plans with multi-level back-up and redundancy
- ❖ Optimized for EMR systems performance — load balancing, prioritization
- ❖ 24x7 Technical Support
- ❖ Full monitoring and reporting

# Data Center Best Practices

- ❖ Not all data centers offer the same level or types of services
  - Cabinets to suites
  - Colo only to fully managed
- ❖ Platform Solutions' fully managed services offering provides fully managed hardware, operating system, security infrastructure and off site data backup



# Regulatory Compliance



- ❖ **Comprehensive compliance capabilities**
- ❖ **Designed to satisfy HIPAA HITECH, CMR 17 and PCI requirements**

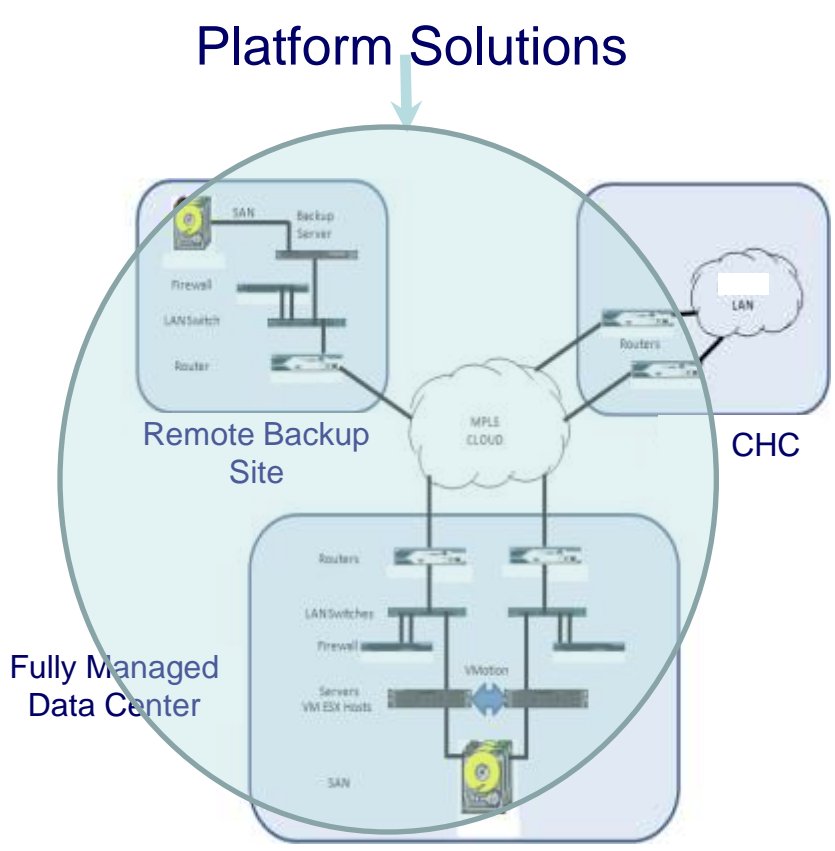
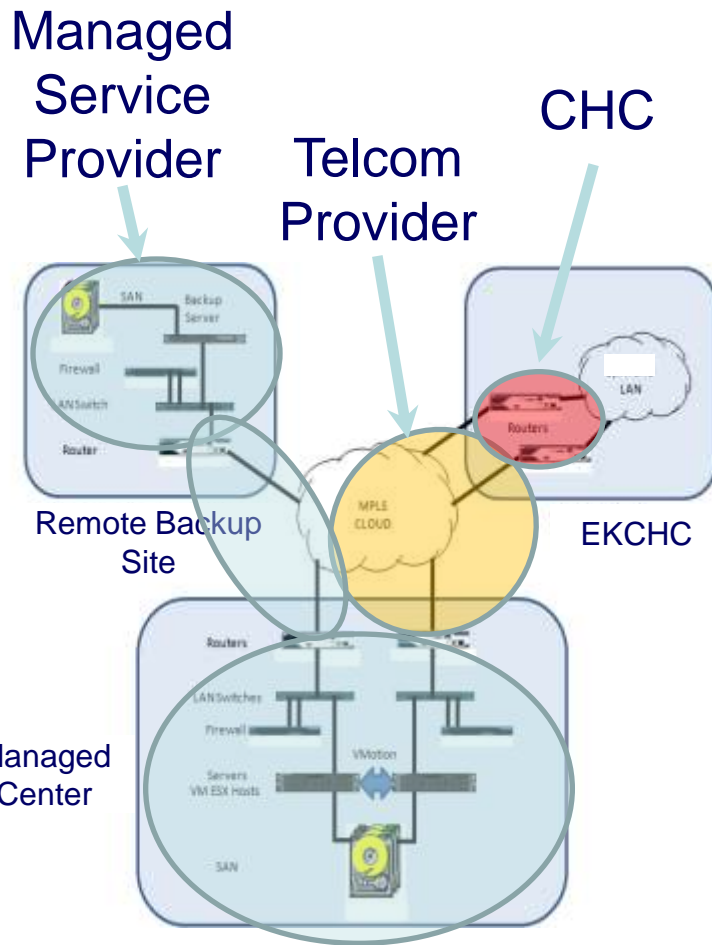
Description	Control Number	Platform Solutions' Managed Service
Information Security - User Access Policy	IS-07	✓
Information Security - User Access Restriction/Authorization	IS-08	✓
Information Security - User Access Revocation	IS-09	✓
Information Security - User Access Reviews	IS-10	✓
Information Security - Anti-Virus/Malicious Software	IS-21	✓
Information Security - Incident Response Metrics	IS-25	✓
Release Management - Production Changes	RM-02	✓
Security Architecture - User ID Credentials	SA-02	✓
Security Architecture - Segmentation	SA-09	✓
Security Architecture - Audit Logging/Intrusion Detection	SA-14	✓

# Additional Benefits

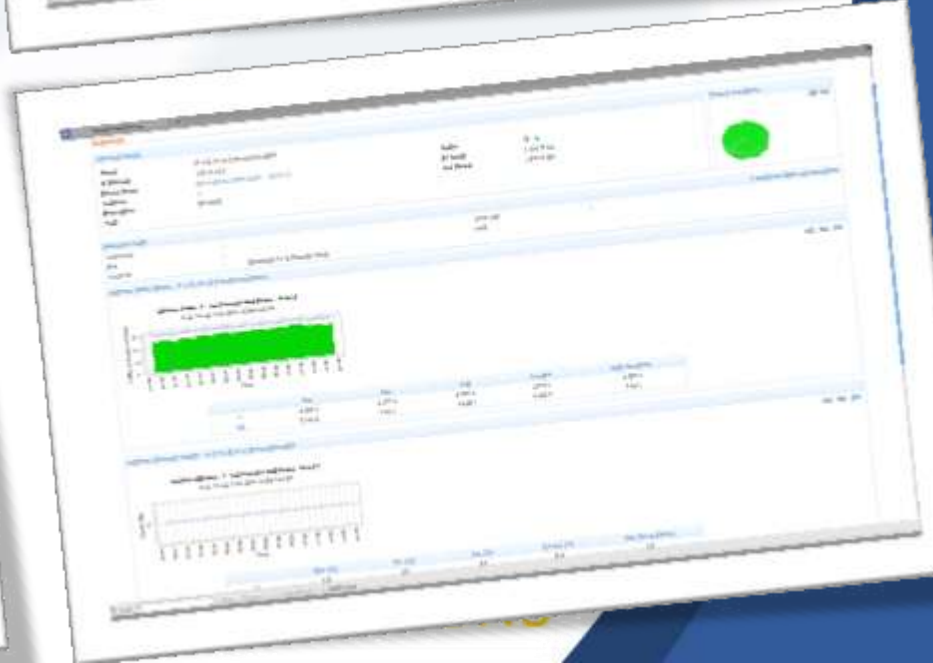


## Traditional Outsource Model 3 management entities

## Platform Solutions Model 1 management entity



# Additional Benefits – Consolidated Management



# The Result

- ❖ Improved performance of the EMR system
- ❖ Enhanced security technologies
- ❖ Removes risk of physical facility issues
- ❖ Predictable expense structure
- ❖ HIPAA HITECH compliance
- ❖ Meets requirements for meaningful use
- ❖ End user satisfaction

*“The key indicator for the success of this project was system performance. Our users noticed an immediate improvement in every- thing from application performance to print times.”*

*“We are so much more productive throughout the day and really feel like our technology is enabling our care of patients — not taking away from it.”*

# Platform Solutions Mission

A blue stethoscope is positioned in the top right corner of the slide, partially overlapping the dark blue header and the white content area.

Platform Solution's mission is to provide the highest quality managed services solutions specifically tailored to health care organizations.

We believe that Platform Solution's unique combination of computing, networking, security and data center expertise enable us to offer the best solution available on the market to the health care community at the most competitive price.

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