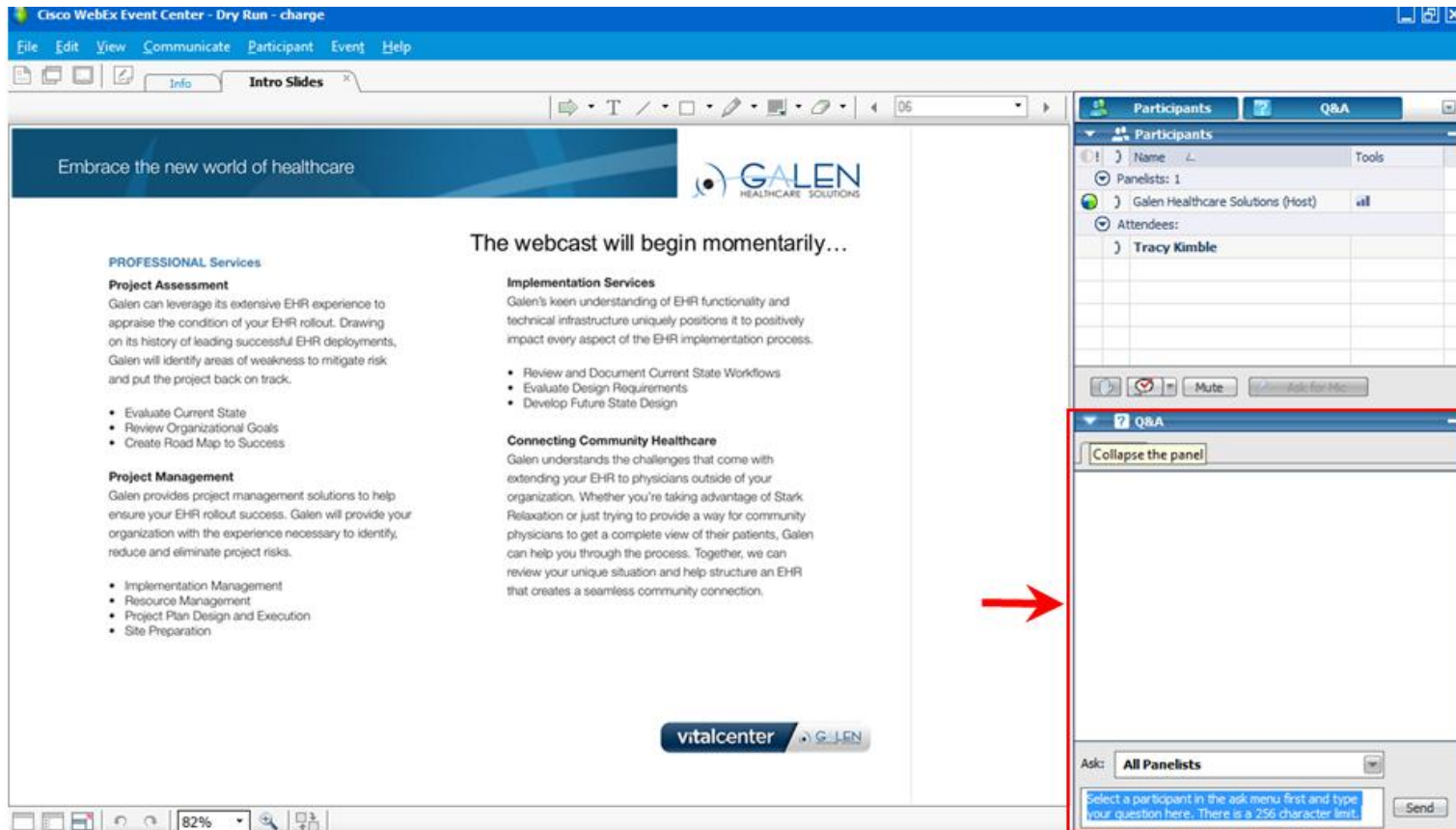


Enterprise EHR Server Fundamentals

October 3, 2012

Embrace the new world of healthcare

Your phone has been automatically muted. Please use the Q&A panel to ask questions during the presentation!



The screenshot shows the Cisco WebEx Event Center interface. The main window displays a presentation slide with the title "Embrace the new world of healthcare" and the Galen Healthcare Solutions logo. The slide content is divided into three sections: "PROFESSIONAL Services", "Implementation Services", and "Connecting Community Healthcare".

PROFESSIONAL Services

Project Assessment

Galen can leverage its extensive EHR experience to appraise the condition of your EHR rollout. Drawing on its history of leading successful EHR deployments, Galen will identify areas of weakness to mitigate risk and put the project back on track.

- Evaluate Current State
- Review Organizational Goals
- Create Road Map to Success

Project Management

Galen provides project management solutions to help ensure your EHR rollout success. Galen will provide your organization with the experience necessary to identify, reduce and eliminate project risks.

- Implementation Management
- Resource Management
- Project Plan Design and Execution
- Site Preparation

Implementation Services

Galen's keen understanding of EHR functionality and technical infrastructure uniquely positions it to positively impact every aspect of the EHR implementation process.

- Review and Document Current State Workflows
- Evaluate Design Requirements
- Develop Future State Design

Connecting Community Healthcare

Galen understands the challenges that come with extending your EHR to physicians outside of your organization. Whether you're taking advantage of Stark Relaxation or just trying to provide a way for community physicians to get a complete view of their patients, Galen can help you through the process. Together, we can review your unique situation and help structure an EHR that creates a seamless community connection.

The Q&A panel is located on the right side of the interface. It is titled "Q&A" and contains a "Collapse the panel" button. Below this, there is a text input field for asking questions, a dropdown menu set to "All Panelists", and a "Send" button. A red arrow points to the Q&A panel.

Overview

- **Introduction to Servers and Networks**
- **Enterprise EHR Server Roles**
- **Data Storage and Data Flow**
- **Server Access and Application Delivery**

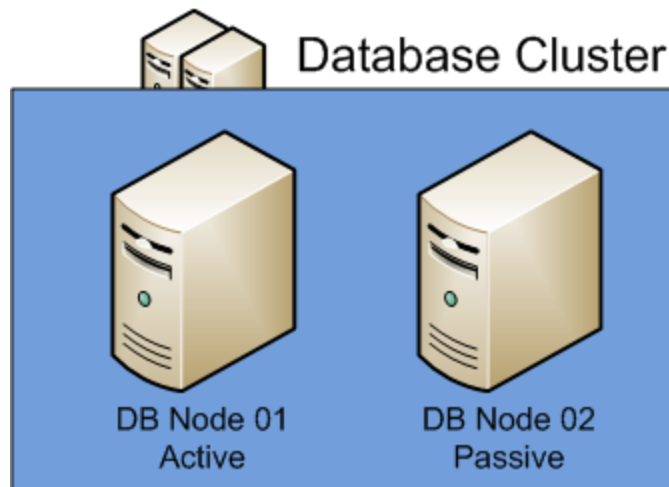
What's a server?

- **Specialized computer**
- **Shares resources to other computers on the network**
- **Responsible for one or more serving “roles”**
- **Must be properly sized and scaled depending on application and level of demand**
- **Can be physical or virtual – but must physically exist somewhere**

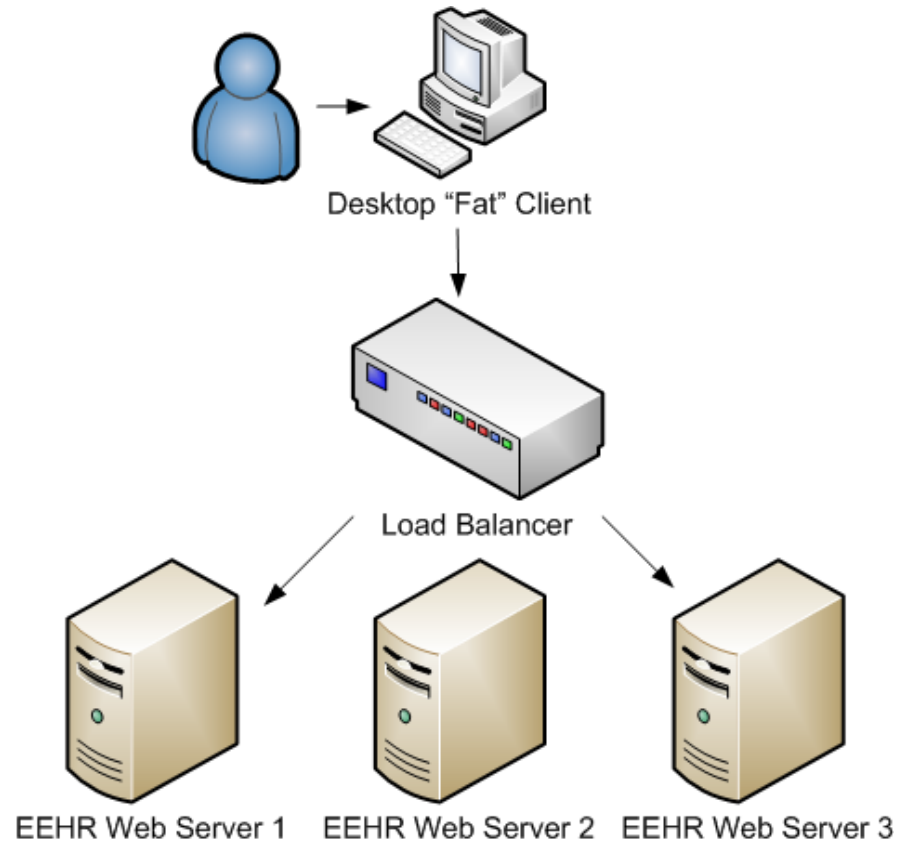


Servers and Networks

- **Multiple servers needed for many enterprise applications**
- **Network: links all servers and computers within organization**
- **Clustering: Two servers, active/passive responsibility**
- **Load Balancer: Evenly divides load across 2 or more server**



Load Balancing



What are all these Enterprise EHR servers?

- **Production EHR environments**
 - Separate EHR Servers required for server roles:
Database, Web, Message/Print, Scan, Interface
- **Non-Production EHR environments**
 - Separate test environment required for upgrades/changes testing
 - Other uses: Training, QA, Conversions
 - Can be run as All-in-One: All server roles installed on single server

Database Server

- **Houses databases needed to support environment**
- **Considered the heart of Enterprise EHR**
- **Normally configured as a cluster (for reliability purposes)**
- **Key databases:**
 - **Works** – Clinical data storage and processing
 - **IDXwf** – Framework and system user data
 - **Impact** – Scan application data

Web Server

- **Presents Enterprise EHR to end users**
- **Manages connections between users and database**
- **Typically multiple web servers situated behind load balancer**
- **Provides print preview and Medcin functionalities**

Message Server (Print/Fax)

- **Compiles and delivers print and fax jobs**
- **Exchanges prescription messages with SureScripts**
- **Print and fax jobs based on Crystal Reports**
- **Typically houses Delta Service (clinical data updates)**
- **Special hardware required for faxing**
- **Print, Fax, Delta can be consolidated on one server – or separated and spread across multiple servers**
(Allscripts recommends separate server for messages)

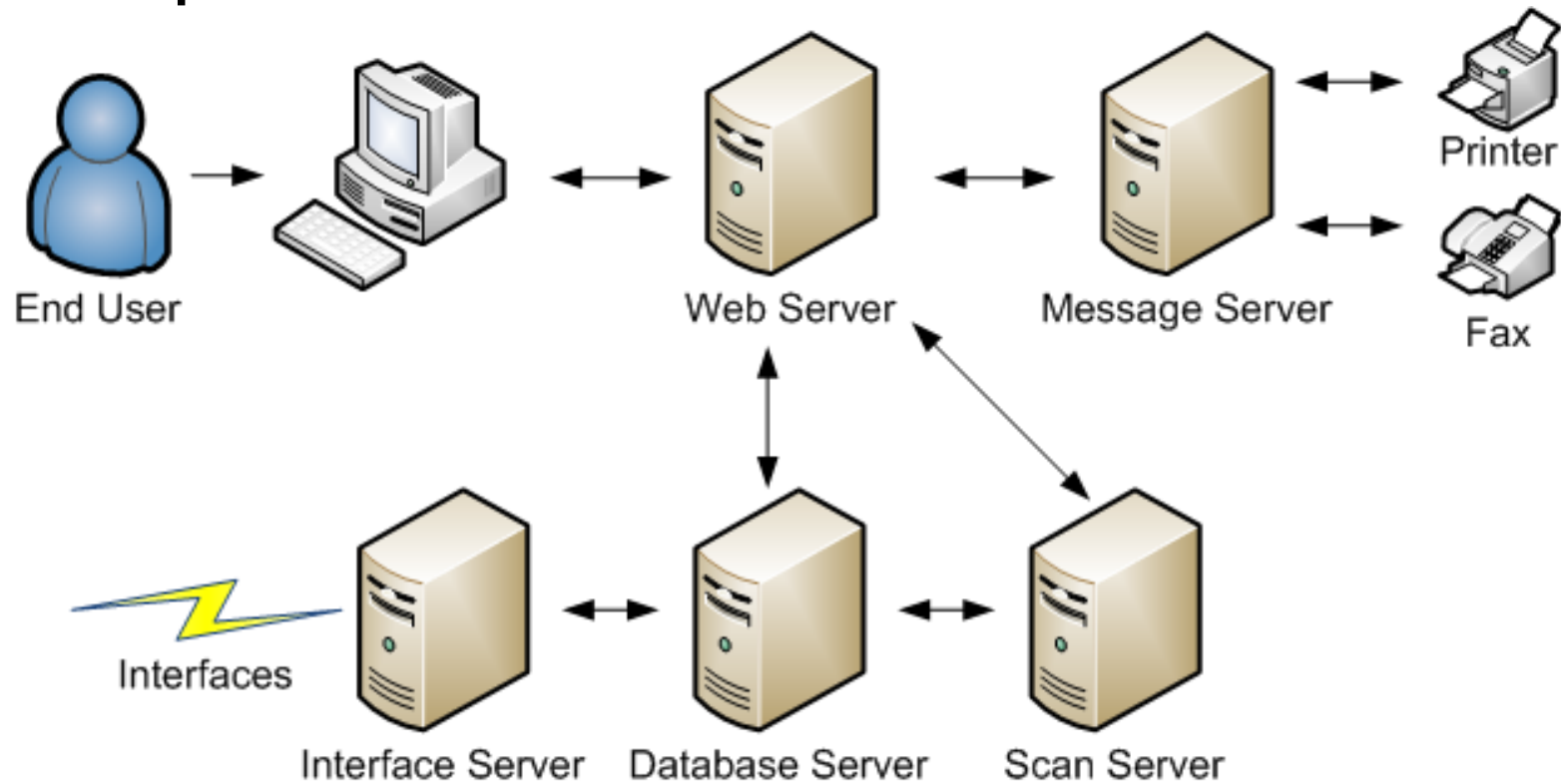
Scan Server

- **Houses server installation and files for Allscripts Document Management (also known as Scan, TouchChart, ImpactMD)**
- **Typically houses Image Warehouse(s) – location of all scanned documents in Enterprise EHR**

Interface Server

- **Processes transactions to and from 3rd party vendors and applications**
- **Conduit for information to and from Practice Management System**
- **Houses ConnectR (interface engine)**

Enterprise EHR – Basic Data Flow



Event Bus Server

- **Required for Stimulus Set implementation**
- **Processes transactions to and from Allscripts Cloud**
- **Events can include:**
 - Immunization Registration
 - Patient Portal
 - Population Health Management
 - CQS Recommendations
 - Lab Orders/Results

Analytics Server

- **Optional server/software offered by Allscripts**
- **Houses a separate, recent copy of clinical data from EHR**
 - ETL Process (Extract, Transform, Load)
- **Houses advanced business intelligence software**
 - Graphical report writing interface
 - Automatic report generation
 - Provides advanced detail on specific clinical data
(example: How many patients have diabetes and have not been seen in the last year?)

Winscribe Server

- **Optional server/software offered by Allscripts**
- **Used to collect, store, and process dictations**
- **Manages transcription queues, allows transcriptionists to review dictation and submit transcription online**
- **Transcriptions file into EHR as unstructured notes**

Real World Example – SSMT in Test

- <http://EHRTEST01/touchworks/imps/ssmt/ssmt.asp>

Starter Set Migration Tool™

Clinical DB Server:	EHRTEST01
Clinical DB:	Works
Clinical DB User:	ahssa
Clinical DB Password:	●●●●●●●●●●●●●●●●
FW DB Server:	EHRTEST01
FW DB:	IDXwf
FW DB User:	ahssa
FW DB Password:	●●●●●●●●●●●●●●●●
<input type="button" value="Login"/>	

TEST Environment



EHRTEST01
10.0.2.54
All-in-One 11.2 Test



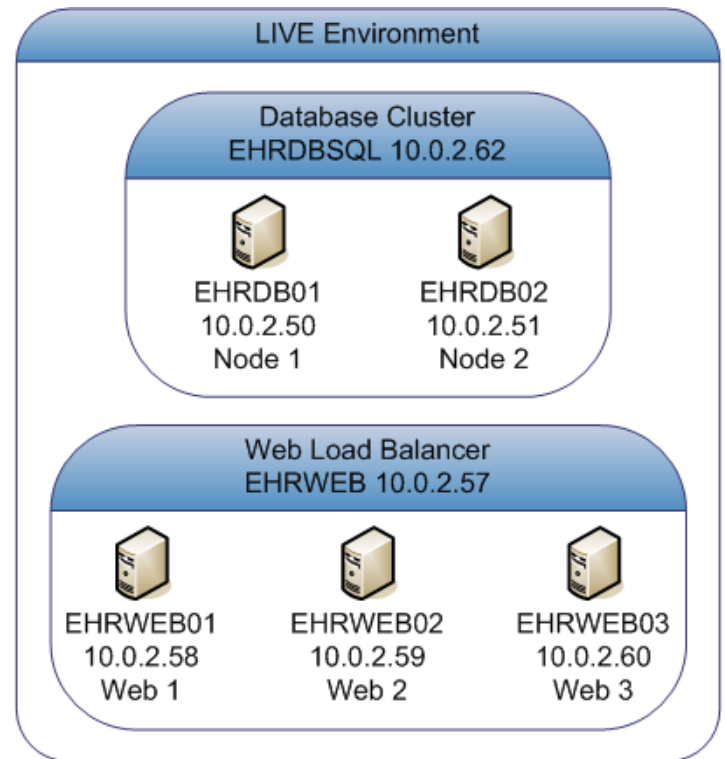
EHREVENT02
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Event Bus

Real World Example – SSMT in Live

- <http://EHRWEB/touchworks/imps/ssmt/ssmt.asp>

Starter Set Migration Tool™

Clinical DB Server:	EHRDBSQL
Clinical DB:	Works
Clinical DB User:	ahssa
Clinical DB Password:	●●●●●●●●●●●●●●●●
FW DB Server:	EHRDBSQL
FW DB:	IDXwf
FW DB User:	ahssa
FW DB Password:	●●●●●●●●●●●●●●●●
	Login



Server Access

- **Remote Desktop Protocol**
 - Used to remotely *administer* servers
- **SecureLink**
 - Secure tunnel technology used by Allscripts and Galen for Remote Desktop access to client servers
- **Gatekeeper**
 - SecureLink software placed on one (or more) servers to establish secure tunnel

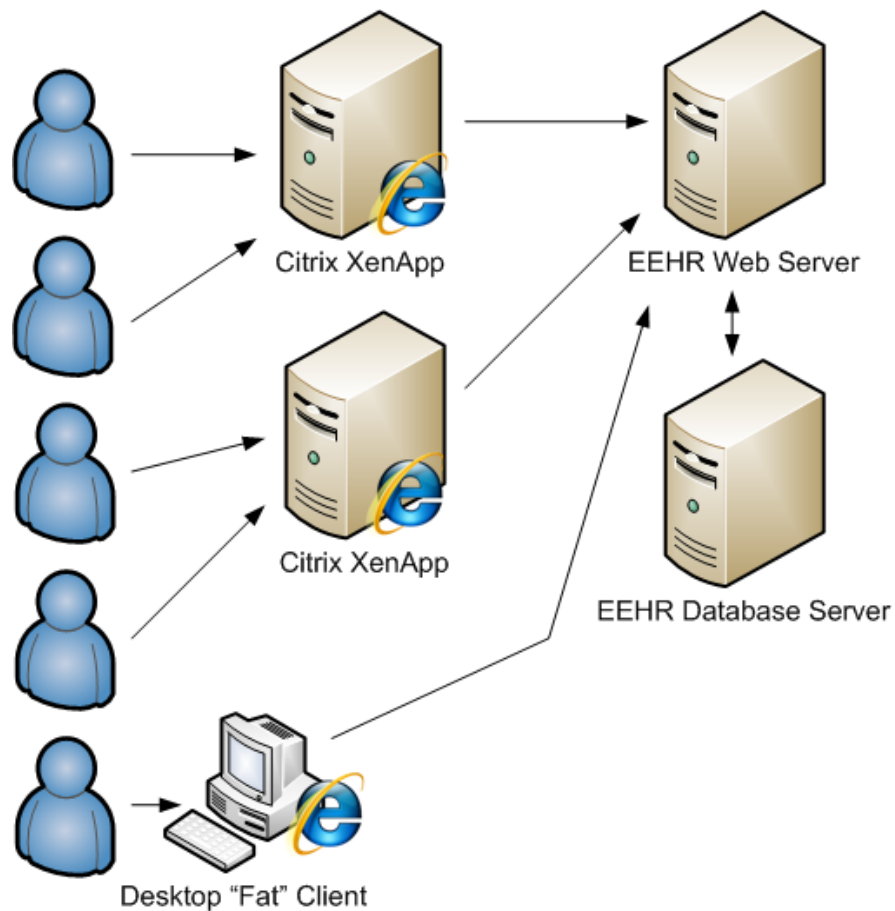
Application Delivery

- **Internet Explorer**
 - Program used to present the main EHR application to users
 - Only supported browser for Enterprise EHR
 - Pre-requisites and proper versions of Allscripts and GE ActiveX Controls required
- **Allscripts Remote and Allscripts Wand**

Application Delivery

- **Terminal Services**
 - Full desktop session running on the server
 - Internet Explorer centrally managed and running on server
 - Similar technologies: Virtual Desktop, Citrix Published Desktop
- **Citrix XenApp**
 - Internet Explorer sessions running on server
 - Internet Explorer application appears to run locally (“seamless”)

Application Delivery Example



Questions?

Questions later?
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Slides (and more) available at
<http://wiki.galenhealthcare.com/Webcasts>