AE-EHR Web Servers

Systems Maintenance

April 24, 2012
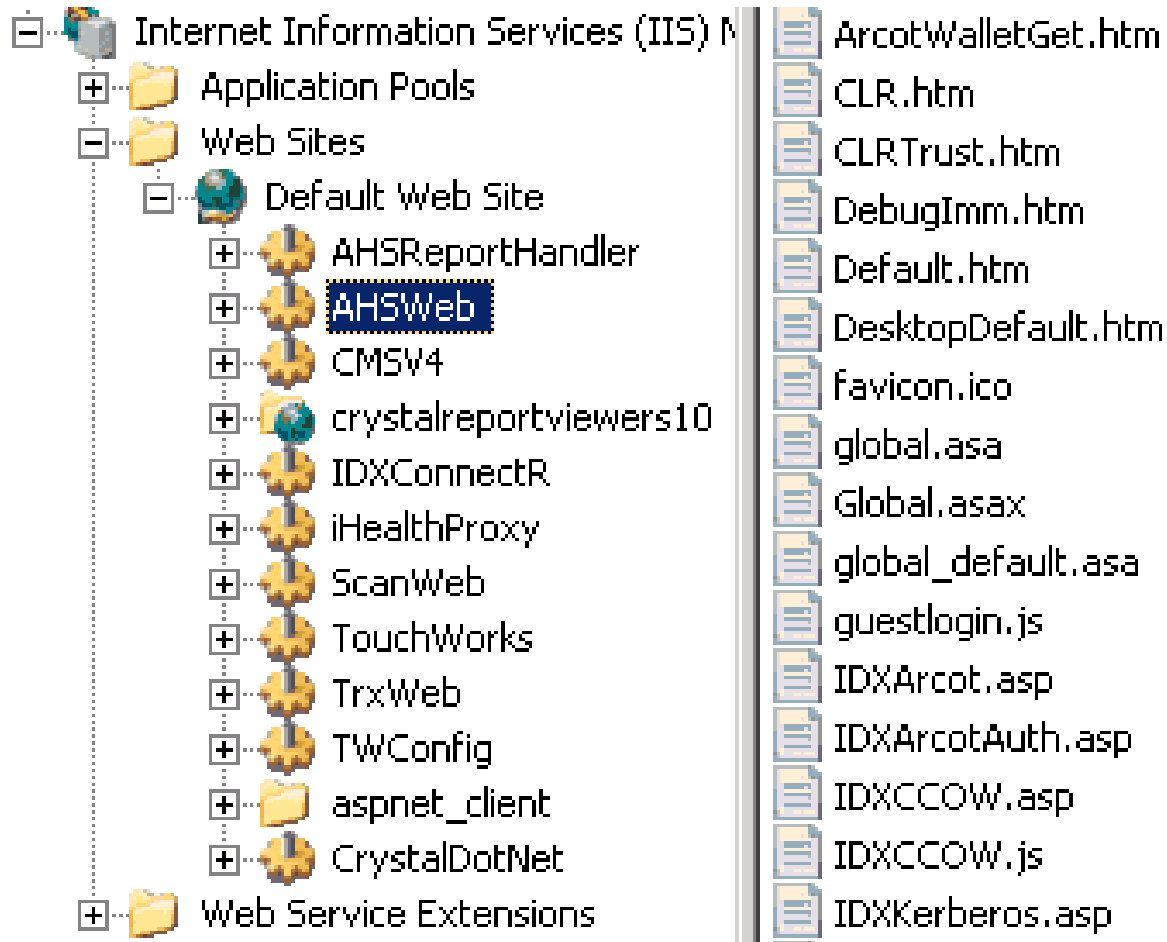
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Agenda

- AE-EHR Virtual Directories

- AE-EHR Virtual Object Engine

- VOE Control Panel App Groups

- Web Framework Configuration

- Server Specifications

- Web Services

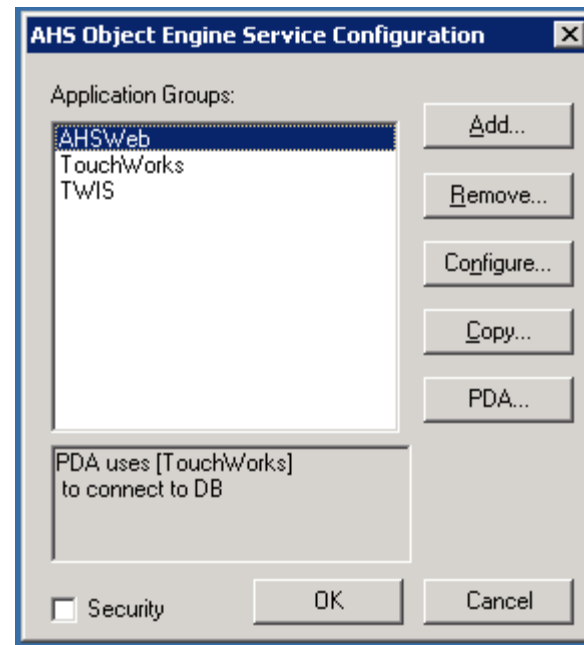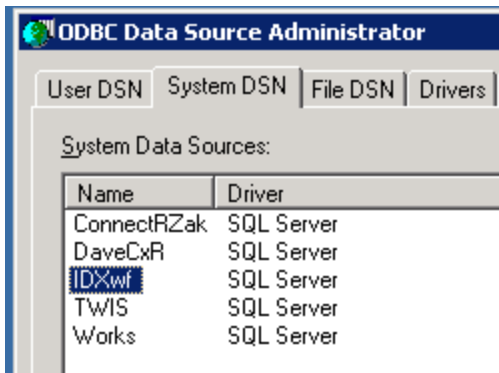- Data Access Paths

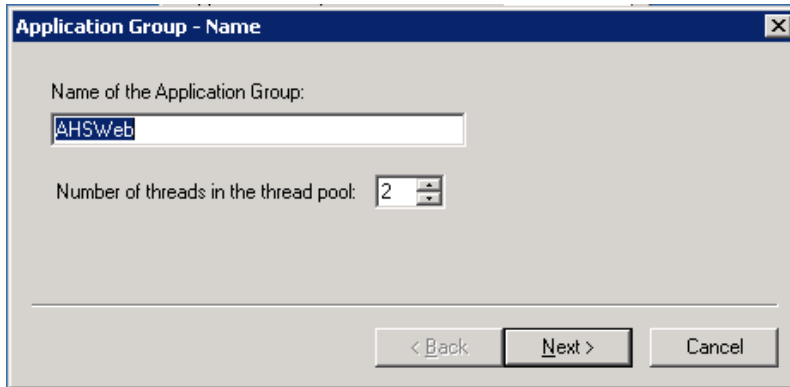- Systems Maintenance

AE-EHR Virtual Directories

AE-EHR Virtual Directories

- AHSWeb - Framework

- Touchworks - AE-EHR Program Files

- TrxWeb - Dictate and PDA functions

- ScanWeb - Scan Image Access

- CMSV4 - VOE DB Communication

- AHSReportHandler - AE-EHR Reports

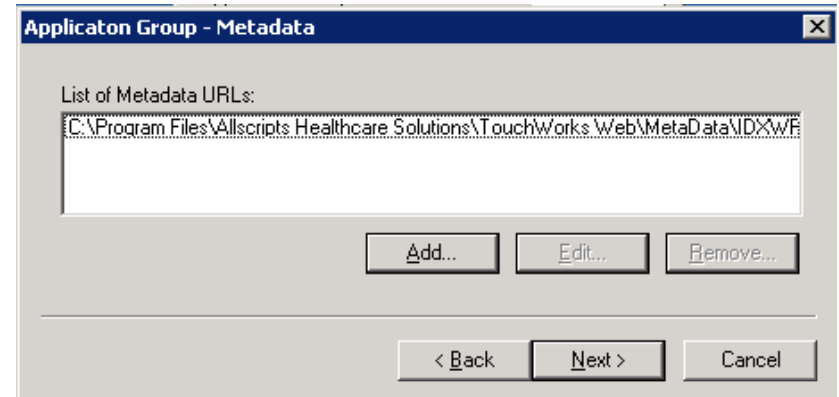# AE-EHR Virtual Object Engine
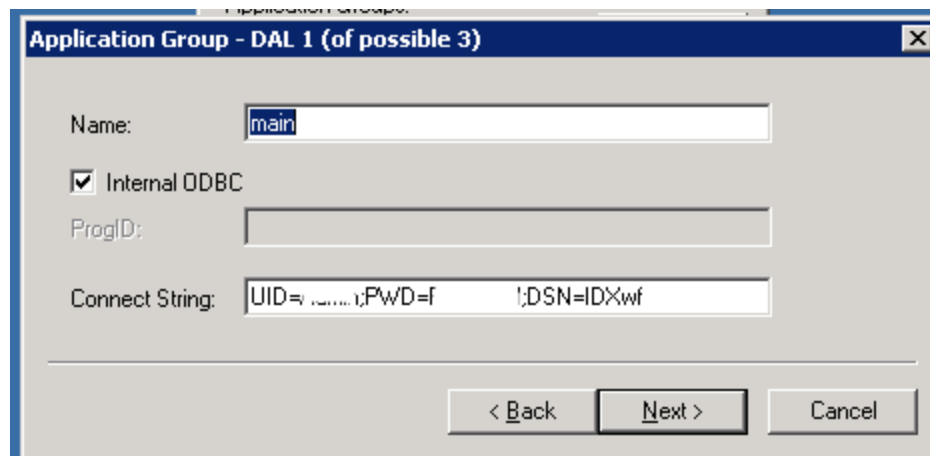
AE-EHR Virtual Object Engine

AE-EHR Virtual Object Engine

- Allscripts Virtual Object Engine is the key communication mechanism between the web and database servers
- Leverages system level DSN's setup using ODBC

VOE Control Panel App Groups

- **AHSWeb:**
  - IDXwf Database
  - IDXWF ODBC
- **Touchworks:**
  - Works Database
  - Works ODBC
- **TWIS (Document Imaging):**
  - Impact Database
  - TWIS ODBC

Web Framework Configuration

- **Database Server Connection Info:**
  - Init.xml

  - <Db>: Confirm Server Name is Accurate
  - <Usr>: Confirm SQL Login
  - <Pwd>: Password is Encrypted during install

Server Specifications

- **11.2**
  - Windows Server 2003 SP2 (x86 only) or Windows Server 2008 (x86 only)
  - Internet Explorer 6.0 SP3, 7.0, 8.0

- **11.4 DRAFT**
  - Adds Windows Server 2008 R2 x64 support
  - Internet Explorer 7.0, 8.0, 9.0

Server Specifications

- 2 server class processor cores
- 2 GB RAM (at least)
- (2) 36 GB disk drives (10,000 rpm) configured as 1 logical RAID 1 device
  - *Larger drive sizes may be substituted*
- *Production and test web servers can be virtualized*
- *GE Framework version 5.02 is required when using Internet Explorer 8, 5.03 required for IE 9*

Libraries and Pre-Requisites

- **11.2**
  - IIS
  - Microsoft .NET Framework 2.0 SP2 and 3.5 SP1
- **11.4 DRAFT**
  - IIS
  - Microsoft .NET Framework 4.0
  - Microsoft Visual C++ 2010 redistributable

Web Services

- **WWW Service:**
  – Application service for IIS Servers
- **AHSVOEService**
  – AE-EHR Data Access Service
- **Medcin Service**
  – Retrieval of Medcin Templates
- **Microsoft .NET 2.0, 3.5, 4.0**
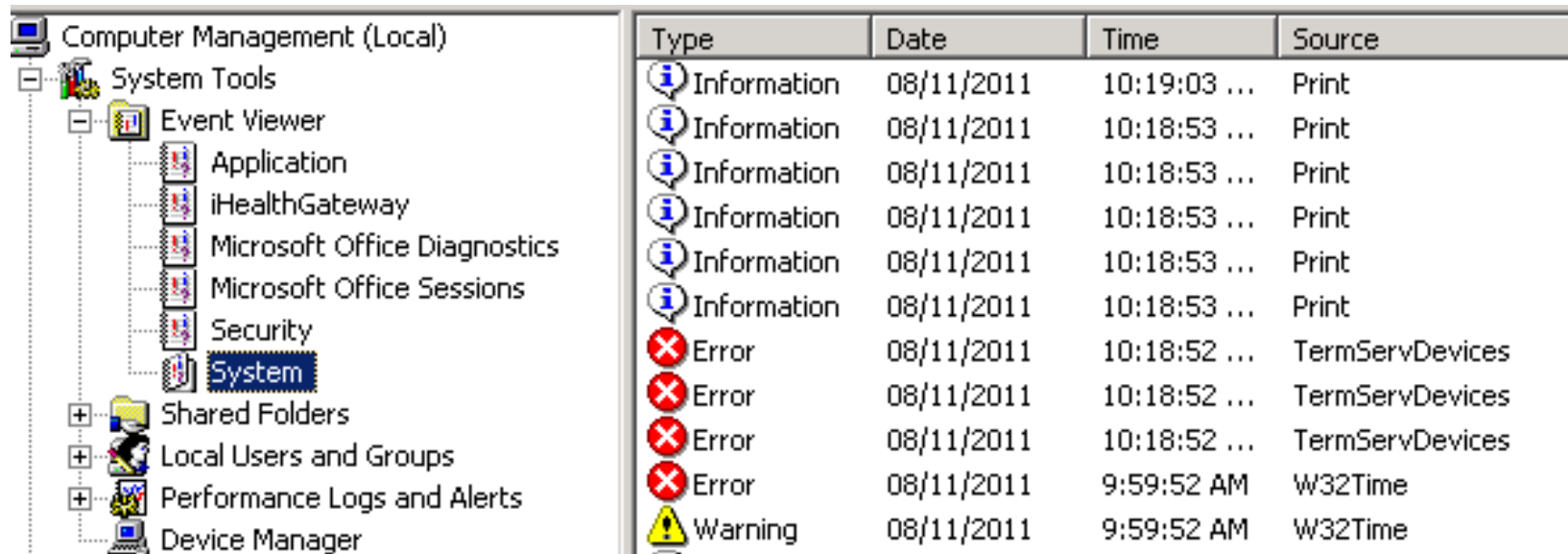 – ASP .NET for New v11 Functionality

Data Access Paths

- **Database**
  - VOE Connections
- **Document Imaging/Transcription**
  - Windows File Share
- **Printing**
  - Preview handled locally
  - Hard copies sent through queue in database, pulled by spooler

System Maintenance

- Event Logs

- Performance Baseline

- Plan for Future Growth

- Bandwidth/Capacity

- Change Control

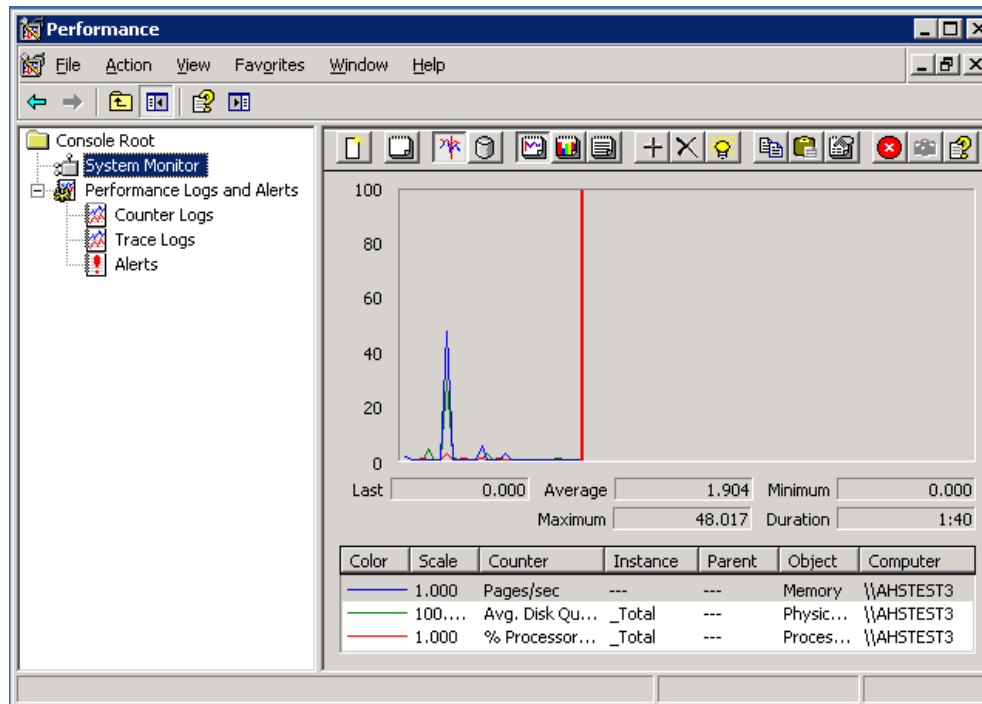- Test vs. Live System - Apply in Test First!

Event Logs - Regular Review

Performance Baseline

- Create snapshot of normal metric levels

Plan for Future Growth

- One web server for every 200 connections

- Validate load balancer configuration before moving into live

- Virtualization is supported for web servers

- Cloning of VMs has been mostly successful

  – Often have to revisit service account passwords in Virtual Directories where it is used.

Bandwidth/Capacity

- From end users to Web Server(s)

- Batch scanning can be a major contender for available bandwidth

- Recommended BW Requirements per site (with Scan and/or dictate)
    - Base: 1024 kbps
    - Plus per user: 40 kbps

Change Control

- Keep things Stable

- Established Process, or your own?

- Use your ticketing system

Test vs. Live System

- Apply changes in Test First!

- Get real users to validate functionality after change before proceeding in Live.

Agenda - Review

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Questions?