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Technical Webinar for IM

General Knowledge and common issues

DATA INNOVATIONS
Simple Ideas, Better Solutions

Daylight Savings time

Process to change the Time with IM.

- Why does it have to be manual?
  - Spring forward
    - Less likely to cause problems with the system
    - Can, if happens at the right time, cause data presentation issues
    - Turn Around Time calculations can be miscalculated. (62 minutes for a STAT!?)
  - Fall back
    - Some of the calculations and queries can have strange processing when results are received “before” the sample has been added to the system.
    - Logs can show events out of order
    - If Cache is logging critical information that is time sensitive, could overwrite other critical data
  - Avoid unneeded downtime
  - Avoid potential data and database corruption

Daylight Savings time

Process to change the Time with IM.

- This is the abbreviated steps for changing the time, additional detail is available in within the Customer Web Portal Knowledge Base and 8.10+ documentation:
  1. Getting Started Setup Guide
  2. Maintaining Instrument Manager
  3. Instrument Manager
  4. Adjusting for Daylight Saving

Daylight Savings time

Process to change the Time with IM.

- What needs to be done prior to the change?
  - Shutdown steps
    - Documentation for shutdown located in Getting Started Setup Guide → Maintaining Instrument Manager → Instrument Manager → Shutting down Instrument Manager
    - How, concise steps
      - Log into IM
      - System menu → Shut Down → Yes
      - Once IM has closed, Right click on Cache Cube, choose Stop Cache.
      - Choose Shut Down, click OK
      - Once the Cache has stopped (The Cube is Gray), change the time.
- Change your time
  - Dependent on OS version and site specific setup.
  - Doesn't have to be at night, can be the day before or after.
- Gotcha!
  - Windows Time Service.

Questions?

Anti-Virus and 3rd Party scanning tools

Overview

- These steps apply to ALL versions of Instrument Manager
- These exceptions are scanning tool independent
  - All backup tools
  - All Anti-Virus/Anti-Malware scans
    - Passive scanning
    - Active scanning
- There are no known exceptions to this policy.
- The official Policy information is available in within the Customer Web Portal Knowledge Base and 8.11+ User's documentation available on all IM systems:
  1. Getting Started Setup Guide
  2. Maintaining Instrument Manager
  3. Instrument Manager
  4. Anti-virus Scanning and Instrument Manager
- **Seriously: Do not forget these exclusions!!!**

Anti-Virus and 3rd Party scanning tools

Exclusions, basically

- Exclude all Instrument Manager and Caché directories from anti-virus scanning. (These are the defaults, additional locations are dependent on your specific system setup)
  - C:\Instrument Manager*
  - C:\InterSystems*
- Also exclude the following from virus scanning, depending on your operating system:
  - C:\WINDOWS\system32\sx32w.dll
  - 64-bit Windows OS:

    C:\Program Files(x86)\Common Files\Data Innovations\Instrument Manager

    and

    C:\Program Files(x86)\Common Files\InterSystems
  - 32-bit Windows OS:

    C:\Program Files\Common Files\Data Innovations\Instrument Manager

    and

    C:\Program Files\Common Files\InterSystems

Anti-Virus and 3rd Party scanning tools

The all important: Why

- Why?
  - These scanning tools lock the file being scanned.
  - Slows down or prevents processing
  - Availability - Impedes performance of your system, fairly often to full system inoperability
  - They can also change the data within our files.
    - System Corruption
    - Database Corruption
  - Most Databases are susceptible to scanning issues
  - Stability
  - System Integrity

Anti-Virus and 3rd Party scanning tools

Worst case scenario

- I've had a breach. I need to check IM/Cache folders
  - Completely Shut down Instrument Manager and Cache first
  - Once both are completely stopped, then and only then, can you scan our directories.
  - Be aware if your scan alters a file in our directory, you might need to restore the file from disk or have problems with Thin Client functionality and performance
  - *Make sure you have a fresh and clean copy of your backup!*
  - Contact DI support if you have questions during a breach

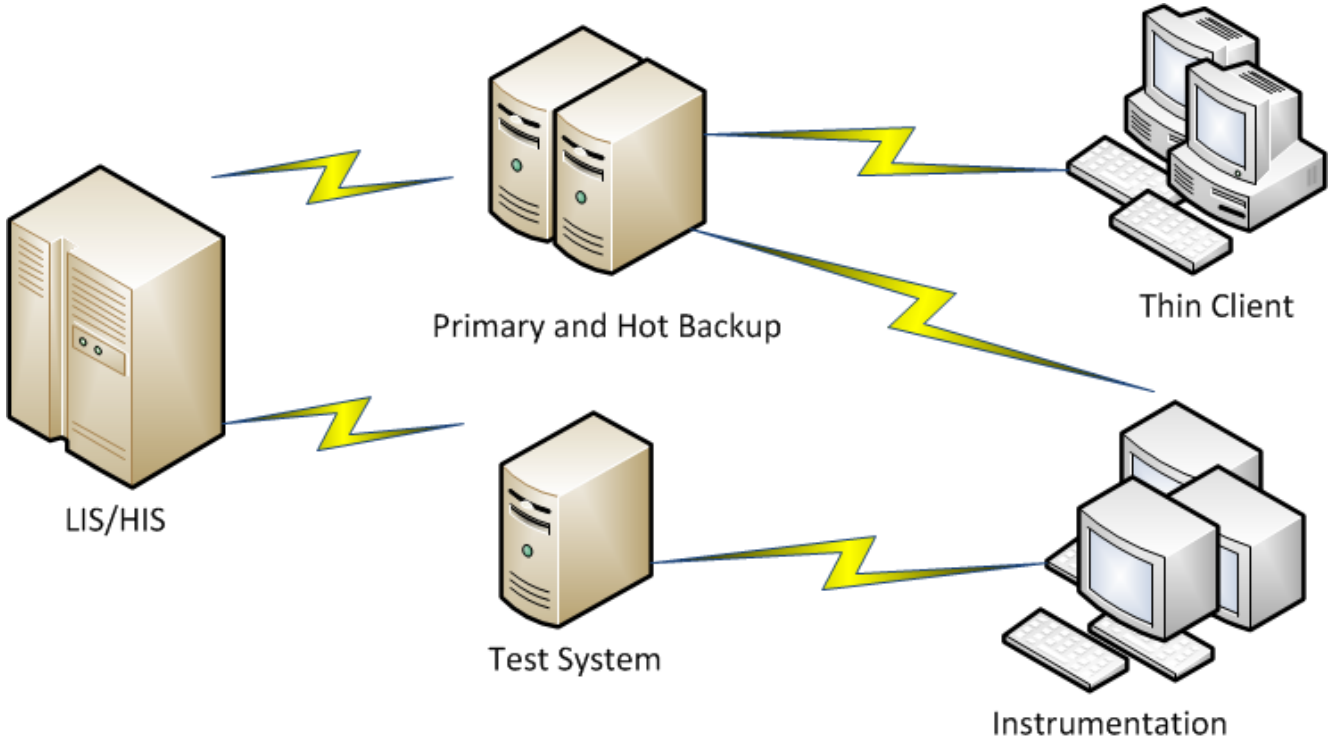
Seriously: Do not forget these exclusions!!!

Questions?

Advantages of a Test System

What is a test system?

A Test System is a second independent Instrument Manager system that has all the features of your production system, usually with less connections licensed



Advantages of a Test System

Overview of test system uses

- When doing upgrades
  - Validate workflow
  - Validate version differences (Both Driver and Core Versions)
  - Test workflow
  - Minimizing downtime during testing and upgrade validation
  - Minimize risk (if failures are detected, Prod system still online)
- Keeping Live and Test data in different databases (No PHI)
- Sandbox usage of system without downtime risk
  - Workflow changes
  - New Auto-Validation configuration
- Initial configuration of new system features
  - New LIS testing
  - New Instrument testing
  - New Feature testing (SM, SR, SSR, MA, MM, LI, ODBC, DC, etc)

Advantages of a Test System

Deployment

- Accessing Test System
  - If both are on the same core version, have one Thin Client shortcut for each system.
  - If they are on different core versions, then you must use a different approach to access the Test System.
    - Thin Clients for the Production system (or RDP/RDWEB as needed)
    - RDP/RDWEB access for the Test System
- Test System Setup
  - Follow the Installation guide for initial set up for Primary Sys
  - Export a copy of the Global Configuration from the Primary System, then import Global config on test system
  - It is advised once all prior testing is done, copy global to test system each time you start a new phase of testing so that both systems are identical at the onset of testing/build

Advantages of a Test System

Moving Instruments between Test to Live

- Using Serial Terminal Server devices (“Lantronix device”)
  - Set the Lantronix device to be the server/listener
  - Set both instrument connections to be clients (connecting to the same IP and port information)
  - Ensure the Start On System Start is correct for your system under the Connection Assignment configuration.
    - Make sure that the LIVE server has Start On System Start Enabled
    - Make sure that the TEST server has Start On System Start Disabled
  - Stop the Instrument Connection in the LIVE environment
  - Start the Instrument Connection in the TEST environment

Advantages of a Test System

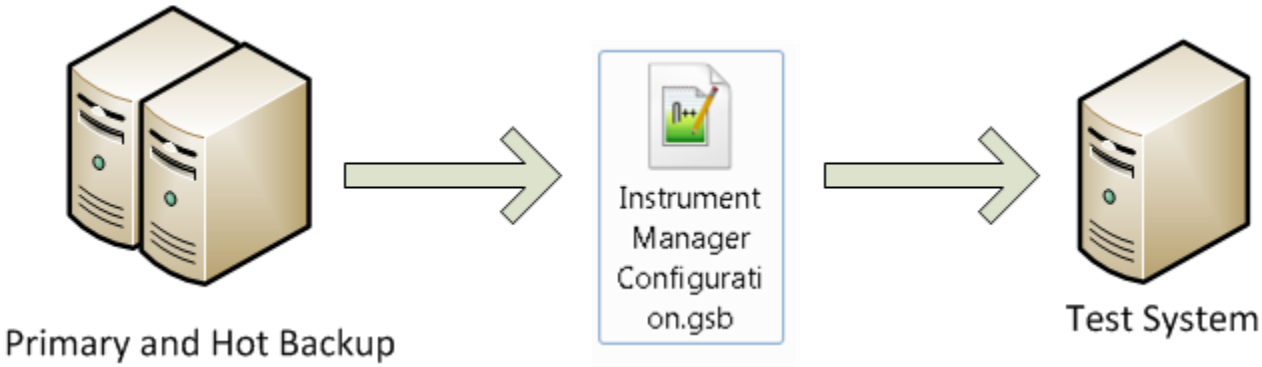
Moving Instrument configurations between systems

- There are two ways to move between system
  - Global Configuration
    - Moves everything for all instruments and all features
    - Overwrites destination
    - All connections must be off to import
    - As this moves everything, this is the better option
  - Instrument Configuration
    - Moves only information related to this instrument
      - Mapping (Fluid, Test, and Instrument ID)
      - Rules
      - Driver Properties
    - Does not move
      - QC Setup information
      - Connection information (IP/Port, COM settings, Destination Lines)

Advantages of a Test System

Moving Instrument configurations between systems

- Global Configuration
  1. Log into Instrument manager on the Source system.
  2. Choose Configuration → Save Configuration To File.
  3. Log into Instrument Manager on the Destination System.
  4. Stop all connections and ensure that no users are logged in.
  5. Choose Configuration → Load Configuration From File
  6. Select the file that was created in step 2 and hit OK.



Advantages of a Test System

Moving Instrument configurations between systems

- Instrument Configuration
  1. Log into Instrument manager on the Source system.
  2. Make note of the connection settings from the Configuration → Connection Assignment screen for the instrument
  3. Choose Configuration → Configuration Editor
  4. Highlight the instrument configuration you wish to move and choose Export.
  5. Log into Instrument Manager on the Destination System.
  6. Load the driver for the configuration you are intending to load
  7. Choose Configuration → Configuration Editor
  8. Click Import
  9. Ensure that the name and descriptions are unique and accurate then hit OK

Questions?

Last slide, please ask!