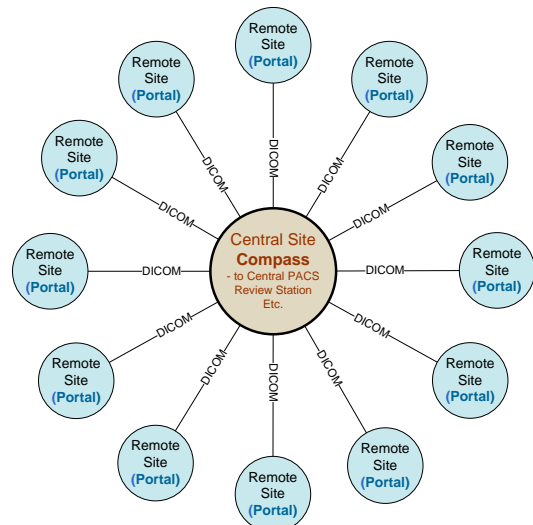# Reliable Image Transport to a Central Site

- Simple, pre-configured Windows™ service for easy deployment
- Reliably receive, route, & deliver medical images and optionally HL7 messages
- Supports unlimited sources in a promiscuous mode – no AE-Titles to configure
- Pre-set & pre-configured primary and failover destinations
- Rapidly off-load studies from local modalities
- Automated retry for any failed data transfers
- Automated resumption of an interrupted DICOM transfer, no need to start over
- Automated failover should primary destination become unavailable
- Automated Heartbeat Sensing to detect restored destination services
- Centrally manage all tag-morphing, filtering, & routing on the central Compass
- Secure, encrypted communication using TLS/SSL for HIPAA compliance
- Access & view the local Portal job table via a password-protected web page
- Access & view all received jobs at the central Compass console or web-page

Efficiently manage delivery & ingestion of medical images
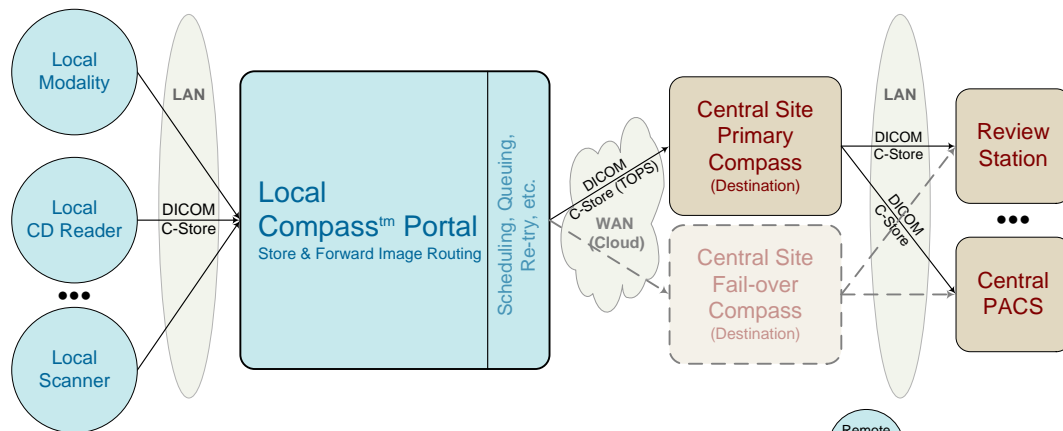
Typical Usage Scenarios:

- **Spoke and Hub configuration**
  Ease delivery & control of incoming imaging studies from remote sites.

- **Central Checkpoint**
  Identify studies by their source site
  Normalize data fields
  Assign consistent values
  Distribute studies to review stations.
  Control which studies enter your PACS.

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Orchestrating Medical Imaging Workflow

Compass Function Matrix:

		Portal	Standard
Dynamic Priority Routing	• Set image routing priorities • Configure your workflow sequences and schedules for each destination	☐	☑
Job Table	• Manage the flow of studies through Compass • Customizable view of patient/study demographic data • Convenient tracking of jobs sent; enables easy resends & image previews	☑	☑
Web-Access	Web-accessible view of the jobs table user interface data, with limited end-user control	☑	☑
Destination Status	Simple, succinct view of all destination states	☑	☑
Failover Destination	Automate sending studies to a secondary destination if the primary destination becomes unavailable or stops responding for some reason	☑	☑
Destination Heart-Beat Sensing	Monitor and detect availability of destination(s); automatically route images queued for such destination(s) when they connect or re-connect	☑	☑
Configurable	Flexible DIMSE message handling and logging options	☐	☑
Stable Study Time	Permits data received from a single source over multiple associations to be aggregated and transmitted over a single outbound DICOM association	☑	☑
Filtering	Per-source or destination, image-level, content-based tag filtering/morphing & scripting	☐	☑
Custom Filtering	Custom execute scripts to support special filtering & scripting needs	☐	☑
Hold Queue	Supports manual review, routing, or deleting of selected images	☐	☑
Compression	Supports JPEG & other compression transfer syntaxes for pass-through and optional conversion in transit	☑*	☑
AE Title Pass-Through	"Pass-through" DICOM AE Titles from the source to the routed destination	☐	☑
Email Notifications	Receive personal notices of job failures, low-disk space, or other events	☐	☑
Logging & Reporting	On a per-source and per-destination basis, log all incoming associations and their state	☑	☑
TOPS **T**hroughput **O**ptimization **P**rotocol **S**ervice	Increase throughput on slower or unreliable links with TOPS • Optional TLS/SSL encrypted connection negates need for a VPN for HIPAA compliance • Allows interrupted jobs to pick up where they left off, instead of requiring resending the entire study again.	☑	☑
Windows Service	Automatically starts the application on system boot or reboot	☑	☑
High Availability	May be configured to run in a Windows Failover Cluster or virtual machine environment	☑*	☑

* Option may require manual configuration

System Requirements: (variable – data volume sensitive)

- Windows 7 or Server 2008 R2 (May run on a virtual machine)
- Adequate hardware; typical:
  Intel i5 processor or better
  4 GB RAM (min.), 500 GB disk (min.)
  1 or 2 network interfaces
- Microsoft SQL Server 2008 R2 SP2 (or Express version)

High-Availability Configuration:

Standard Windows Failover Cluster - Minimal configuration:

- Windows Server2008 R2 SP2
- Microsoft SQL Server 2008 R2 SP2
- Matching computer systems
- Dedicated, reliable, fault-tolerant, shared storage system