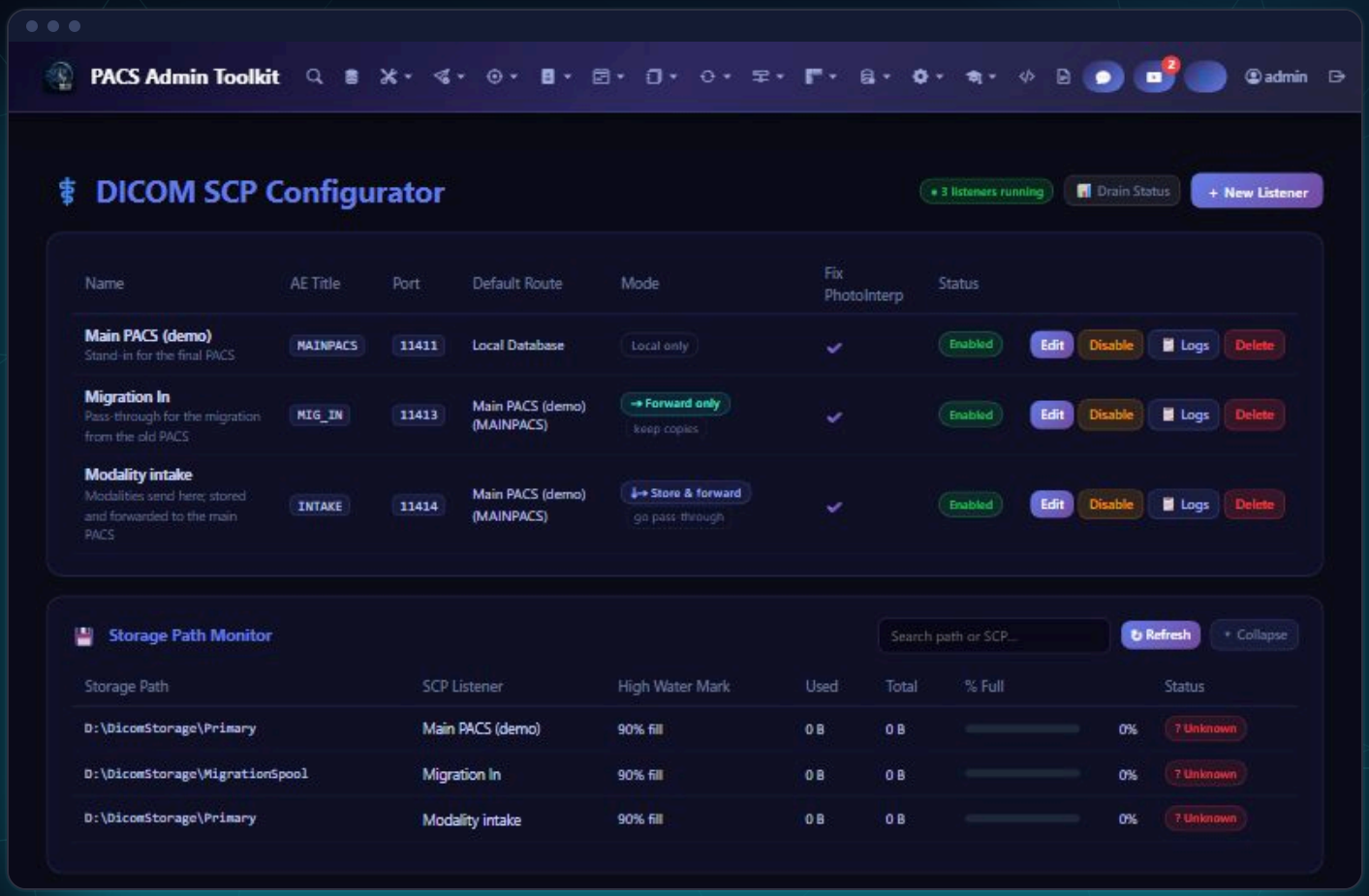
Imaging & Routing | Leads with Trust

DICOM Routing

Receive, fix and forward every image, with nothing lost when a destination goes down.



DICOM listeners that receive from modalities and archives, correct tags on the way through and route each image by rule. Store and forward or pass-through, with a retrying queue and a forward log that proves where every study went.

3
forward modes: local, store and forward, pass-through

Per study
forward log row for every destination

0
unedited copies needed to test a tag rule

Replaces: **Stand-alone DICOM router**

License module `DICOM_ROUTING`

THE CHALLENGE

Why it matters

Images rarely go straight from the scanner to the right archive with the right tags. A new modality sends the institution name in lower case, an acquired site uses its own patient ID domain, and the PACS rejects or misfiles what it does not like. Someone fixes it by hand, one study at a time.

When a destination is down, the questions start: which studies were sent, which were not, and which are still sitting somewhere waiting? With an opaque router, nobody can answer without an afternoon in log files.

> IN SHORT
>
> DICOM listeners that receive from modalities and archives, correct tags on the way through and route each image by rule. Store and forward or pass-through, with a retrying queue and a forward log that proves where every study went.

CAPABILITIES

What it does

- **Listeners for every sender**
  An AE title on a port receives C-STORE from modalities, PACS and migration sources, with per-listener SOP class and transfer syntax control and connection limits.
- **Three forward modes**
  Keep a local copy only, store and forward in the background, or pass straight through with no second copy; switch with one click and no restart.
- **Rules that pick the route**
  Conditions on called AE, calling AE, sender IP or any tag decide to forward, store only, discard or reject; a route tester shows where an image would go before anything is sent.
- **Tag fixes on the way through**
  Tag Editor templates set, prefix, map, look up, shift dates and generate consistent new UIDs or accession numbers, on the listener or on each destination.
- **Many sites, one port**
  One listener answers to many called AE titles, each with its own allowed senders and its own templates.
- **Nothing dropped when a destination fails**
  Store and forward retries with back-off and hands off to the DICOM queue; pass-through spools the image and queues it, and the queue survives restarts.
- **A forward log you can search**
  Every forwarded study, per destination, delivered or not, with the last association's details, searchable by patient ID, accession or UID.
- **Storage that looks after itself**
  Several storage paths with high-water marks, automatic overflow, e-mail alerts, and Storage Moves to rebalance or retire a drive while the listeners keep running.

A small archive too
Store-and-forward listeners answer C-FIND and C-MOVE for what they hold, limited per facility or site when Access Topology is licensed.

WORKFLOW

How it works

1. **Image arrives**
A sender calls the listener's AE title; the port, called AE and allowed senders decide whether it is accepted.

2. **Tags fixed**
Photometric correction, then Tag Editor templates, then any migration tag changes.

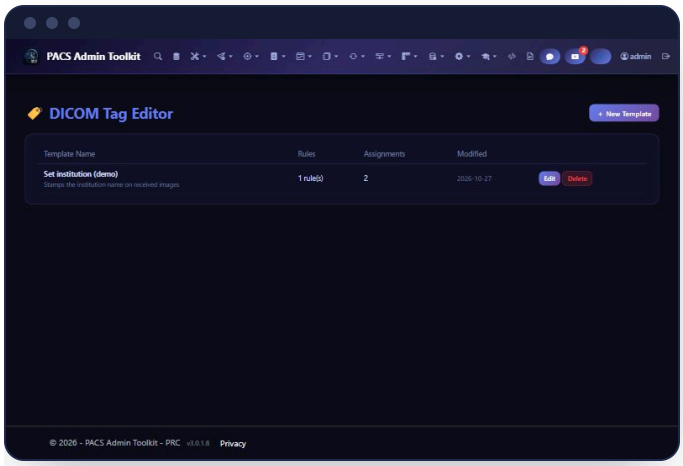
3. **Route chosen**
Routing rules run top to bottom; images no rule picks up go to the default destinations.

4. **Stored and sent**
The image is kept, forwarded or both, with outbound templates applied per destination.

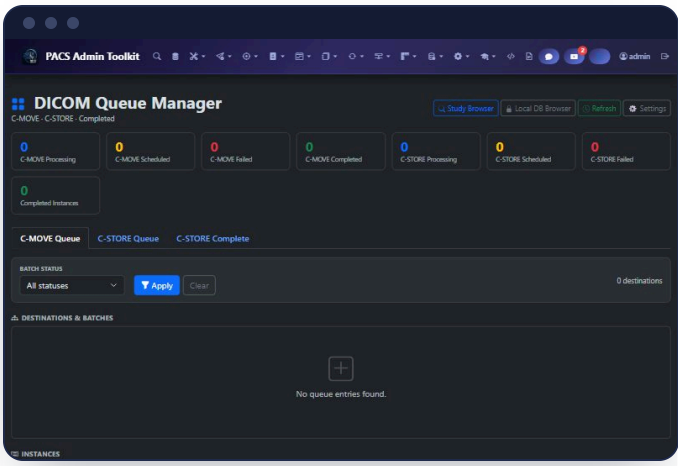
5. **Failures recovered**
Retries, spooling and the DICOM queue deliver it later; the forward log records the result.

IN THE PRODUCT

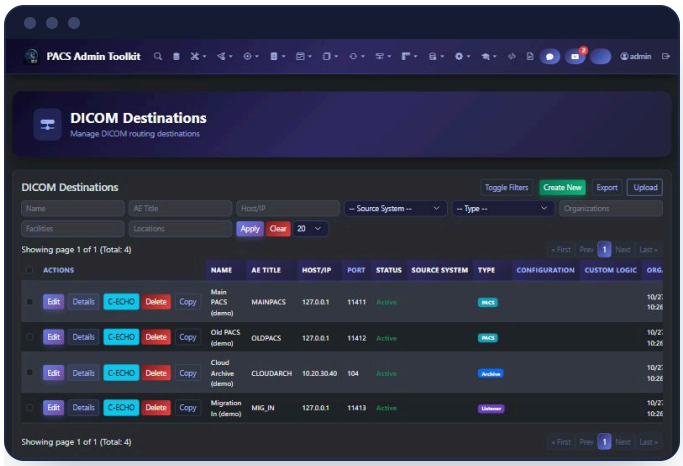
See it in action



Tag Editor rules read like sentences and are tested on a real file before saving



DICOM Queues: every batch per destination and study, retried automatically



Destinations with C-ECHO, bulk edit and spreadsheet upload

USE CASES

Where it pays off

Imaging centre with a fussy PACS

CHALLENGE	A new CT sends the institution name in lower case and leaves the station name blank; the PACS team fixes studies by hand every week.
WITH PATK	A pass-through listener applies a two-rule template and forwards to the PACS, with spooling on in case the PACS is unavailable.
OUTCOME	**Every study arrives correctly tagged, with no second copy on disk and no weekly clean-up.**

Hospital network absorbing an acquired site

CHALLENGE	The new site's modalities use their own MRNs and AE titles, and its studies must reach the network PACS without colliding with existing patients.
WITH PATK	One listener answers to each site's AE titles; a template fills the Issuer of Patient ID from a lookup table keyed on the calling AE; 300 modalities load from a spreadsheet.
OUTCOME	**The site sends to one address from day one, and every study reaches the PACS with its patient ID domain intact.**

PACS outage during a busy evening

CHALLENGE	The reading PACS goes down for three hours while emergency department scanners keep sending.
WITH PATK	Listeners keep accepting; images are stored or spooled and queued. When the PACS returns, one click reprocesses the failed batches and the forward log confirms delivery study by study.
OUTCOME	**Scanners never stop, and the after-action report is a filtered list, not a guess.**

Migration listener for a PACS replacement

CHALLENGE	Millions of studies must move to a new PACS with an issuer added to every patient ID.
WITH PATK	A store-and-forward pilot proves the tag changes on 25 studies; the listener then switches to pass-through for the bulk, keeping disk use flat.
OUTCOME	**The same router that handles daily traffic carries the migration, with every send logged.**

3T

Trust · Truth · Transform

Trust

Senders are admitted by AE title and host; unsafe pixel data is refused; failed sends are spooled and retried across restarts; tag changes can be recorded in the Original Attributes Sequence.

Truth

The forward log, queue status, drain status and storage monitor show where every study is and why a send failed, down to the association.

Transform

Tag fixes, site onboarding and outage recovery become configuration changes in a browser instead of manual rework and vendor tickets.

VALUE MODEL

What it can be worth

An example multi-modality department replacing a stand-alone router and the manual work around it.

Stand-alone router licence and support avoided per year	$25,000
"Where is my study?" investigations per year	240
Time saved per investigation with the forward log (30 to 10 minutes)	20 minutes
Studies a year that would otherwise need manual tag correction	1,000
Time to correct one study by hand	5 minutes
Blended PACS staff cost per hour	$55

$34,000

Estimated yearly value

Illustrative example. Your volumes, staffing and costs will differ; we will build this model with your own numbers.

DIFFERENTIATORS

Why it stands out

Provable delivery
A per-study, per-destination forward log answers "did it arrive?" in seconds, which many stand-alone routers leave to raw log files.

Test before live traffic
Template tests, the route tester and evaluate-only test runs show the result without sending anything.

One platform
Routing shares destinations, queues, audit and login with prefetch, worklist, migration and reporting tools.

Built for outages
Spooling, back-off and a restart-proof queue are standard, not extra-cost options.

SPECIFICATIONS

At a glance

Standards	DICOM C-STORE, C-ECHO, C-FIND and C-MOVE (SCP and SCU)
Modes	Local only, store and forward, forward only (pass-through) with spooling
Routing	Called / calling AE, sender IP and tag conditions; forward, store only, discard, reject
Tag editing	Templates on listeners and destinations, lookup tables, UID and number generators, sequence paths
Monitoring	Forward log, DICOM queues, storage path monitor with e-mail alerts, drain status



See DICOM Routing with your own data

Ask for a guided demo or a trial license. PACS Admin Toolkit installs on your own Windows server in under an hour, and every module comes with step-by-step guides and in-app guided tours.

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