

What is JAAT?

JAAT unifies widely used, free imaging tools to simplify bulk anonymization and secure transfer of DICOM. The tool's primary aims are to aid researchers in the acquisition of DICOM for clinical translational research and to streamline the process of sharing imaging data among investigators.

Download JAAT

nrg.wustl.edu/software/jaat



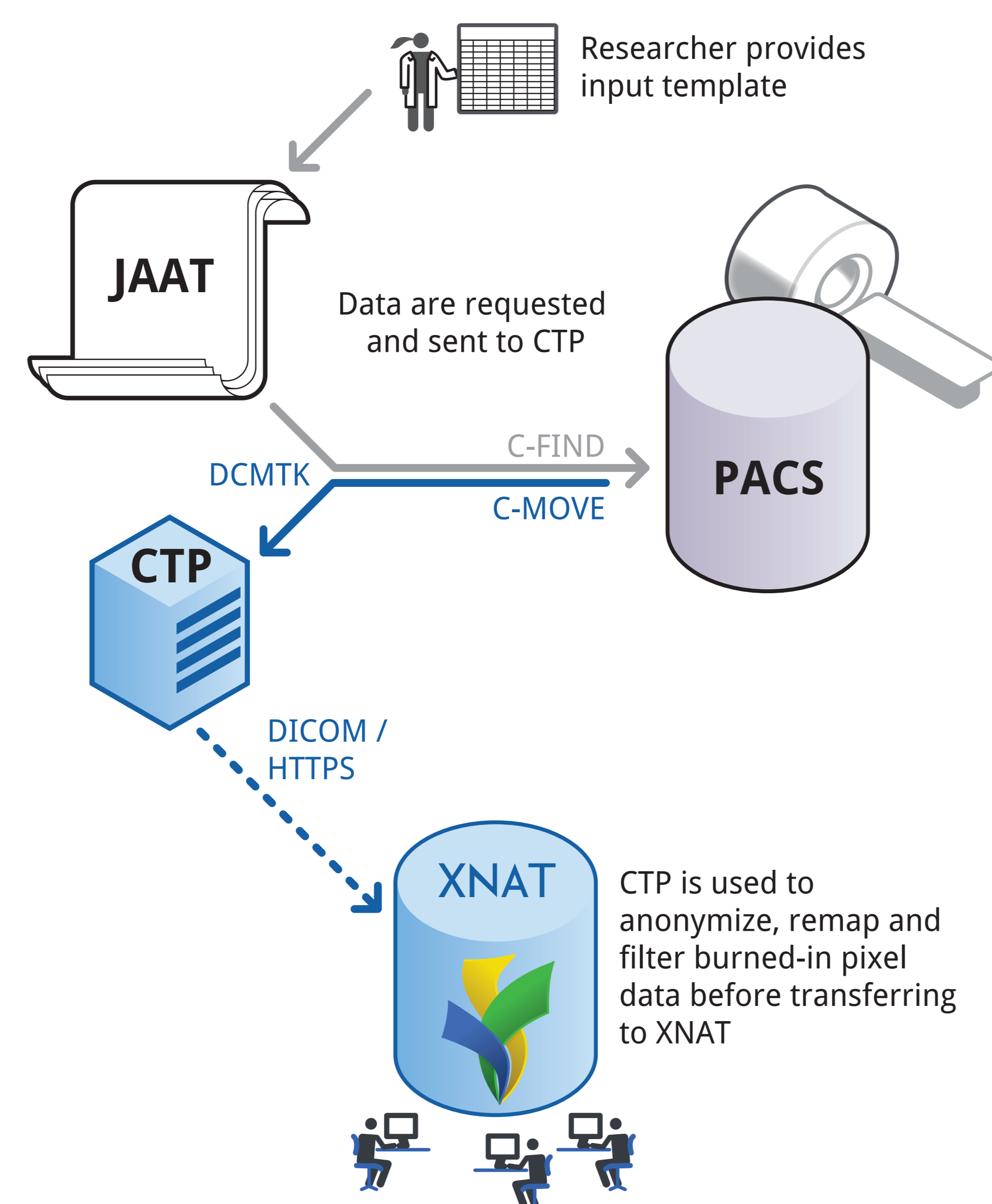
Tools Used and Acknowledgements



Three ways to use JAAT to transfer and anonymize your data:

PACS to XNAT Transfer

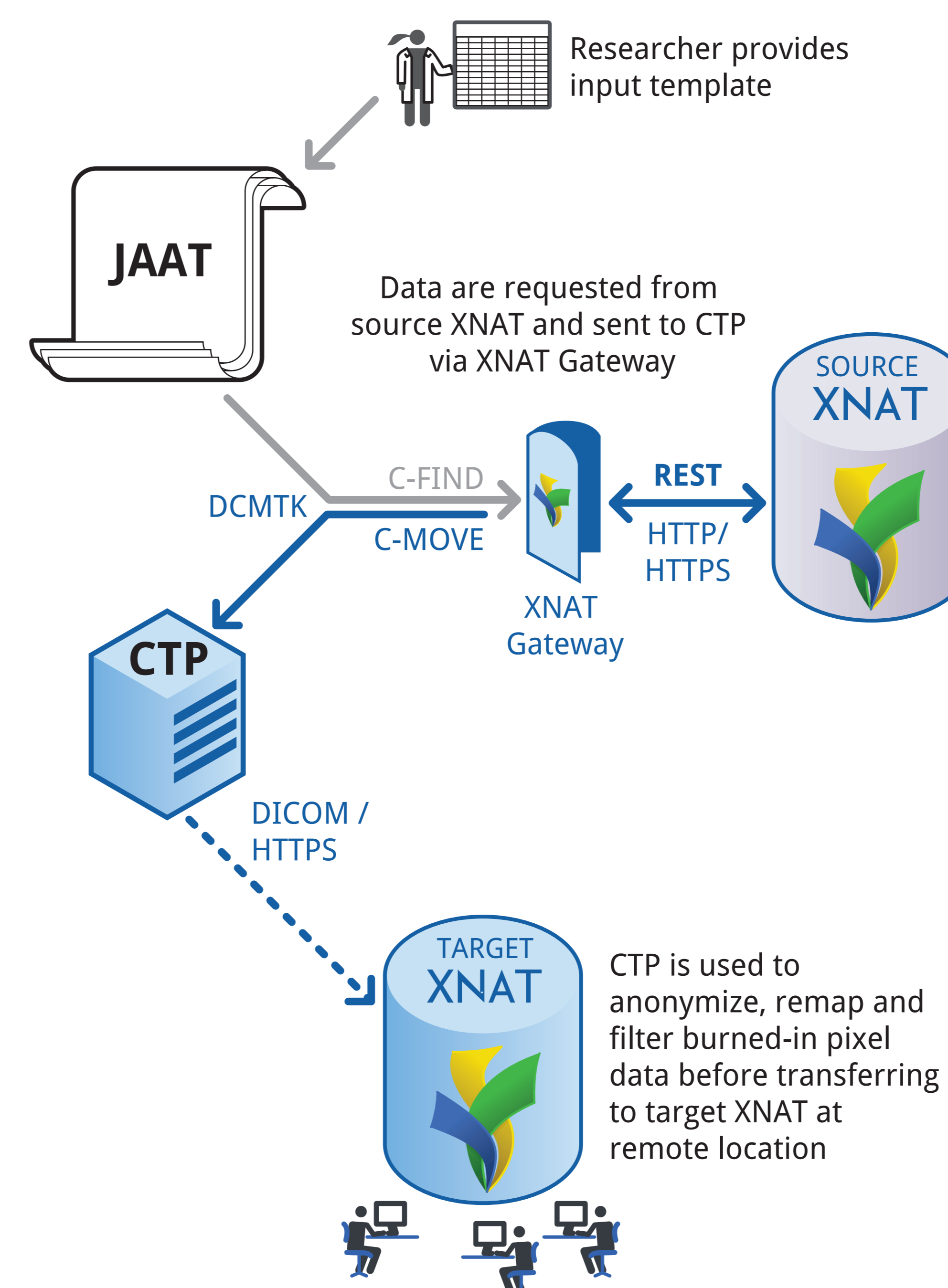
PACS to XNAT Transfer simplifies preparations of clinical translational research data sets by providing bulk download and anonymization of imaging sessions. Researchers provide a template with clinical query values and XNAT metadata mappings. Using DCMTK, JAAT retrieves specified imaging sessions from the PACS and forwards them via DICOM protocol to CTP, where the data are anonymized and remapped. CTP routes the data to XNAT via DICOM or HTTPS protocol.*



*DICOM transfers should always occur within a secure network. TLS protocol has not been tested for JAAT.

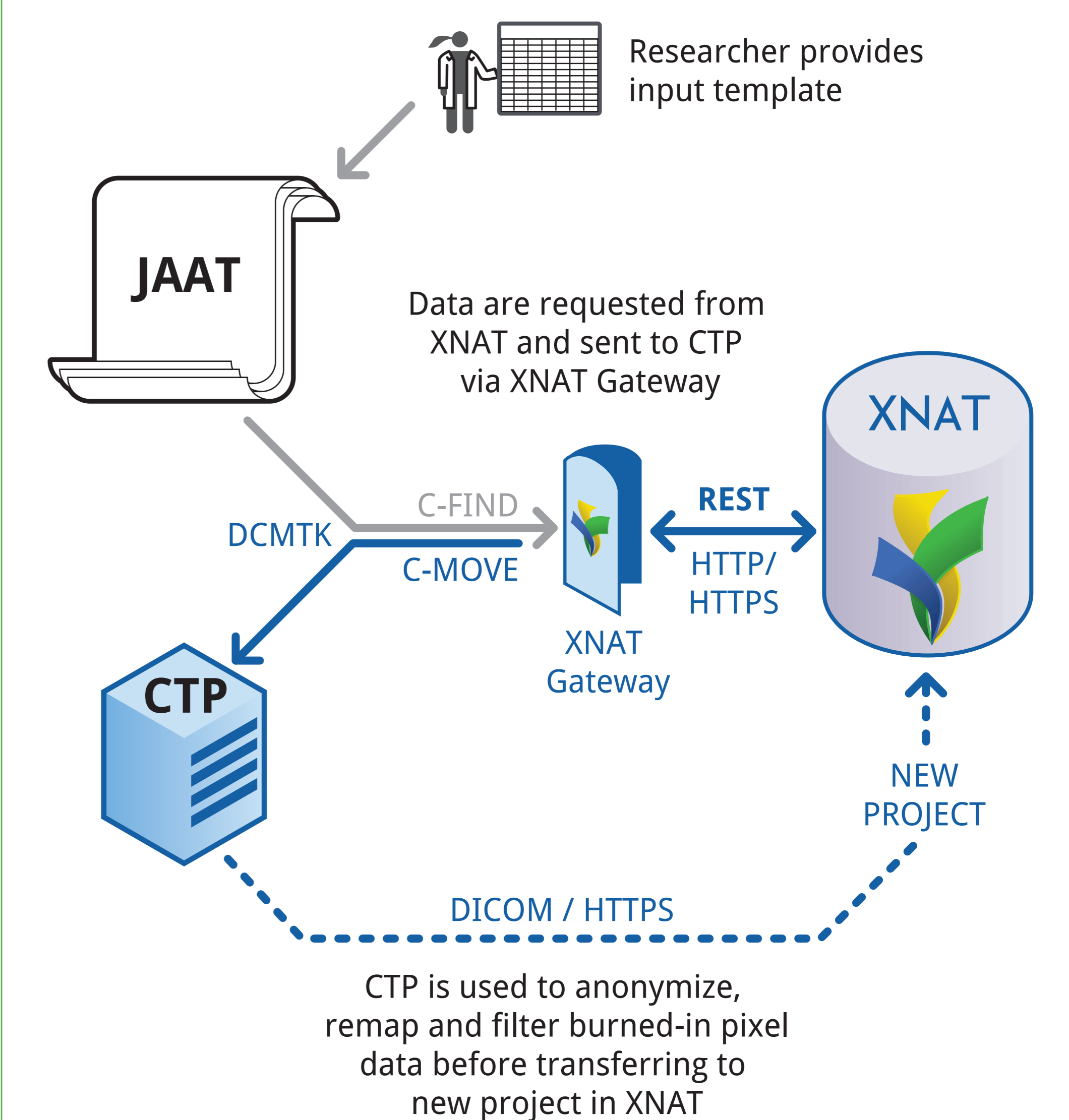
XNAT to XNAT Transfer

XNAT to XNAT Transfer allows researchers to easily share their DICOM data with another institution's or even a public XNAT. XNAT Gateway provides a C-Store receiver interface, allowing C-FIND and C-MOVE calls to be issued against XNAT. Because XNAT Gateway uses the XNAT REST API, calls can be made via a secure protocol, allowing the source XNAT to be located anywhere on the internet.



Internal Data Migration

Internal Data Migration allows the preparation of specialized data sets for distribution within an XNAT. This transfer is essentially XNAT to XNAT, where both the source and target are the same. In a typical scenario, a researcher will request a new XNAT project for use by investigators not directly involved with a study. Imaging data from the researcher's existing project are blinded and heavily de-identified.



XNAT is an open source imaging informatics platform developed by the Neuroinformatics Research Group at Washington University and is used by many neuroimaging projects and research labs around the world.

JAAT in use at Washington University School of Medicine

JAAT has been in operation since December 2012 at the Central Neuroimaging Data Archive (CNDA) at Washington University, XNAT's flagship deployment.

As of December 2013, the tool has been used to anonymize and/or transmit imaging sessions of MR, PT, CT and NM modalities, including:

- **Over 3000 sessions** in PACS to XNAT Transfers from the Barnes-Jewish and Children's Hospitals and the Electronic Radiology Lab at Washington University
- **Over 100 sessions** in XNAT to XNAT Transfers to the University of Texas
- **Over 1000 sessions** in Internal Data Migration to blind data for the Dominantly Inherited Alzheimer Network (DIAN)

Washington University runs two JAAT deployments. The first JAAT is dedicated to retrieving clinical data in PACS to XNAT Transfers using a CTP anonymization profile based on the DICOM Steering Committee's recommendations in "Supplement 142: Clinical Trial De-identification Profiles." The second JAAT is designated for transfer and remapping of previously de-identified DICOM.