

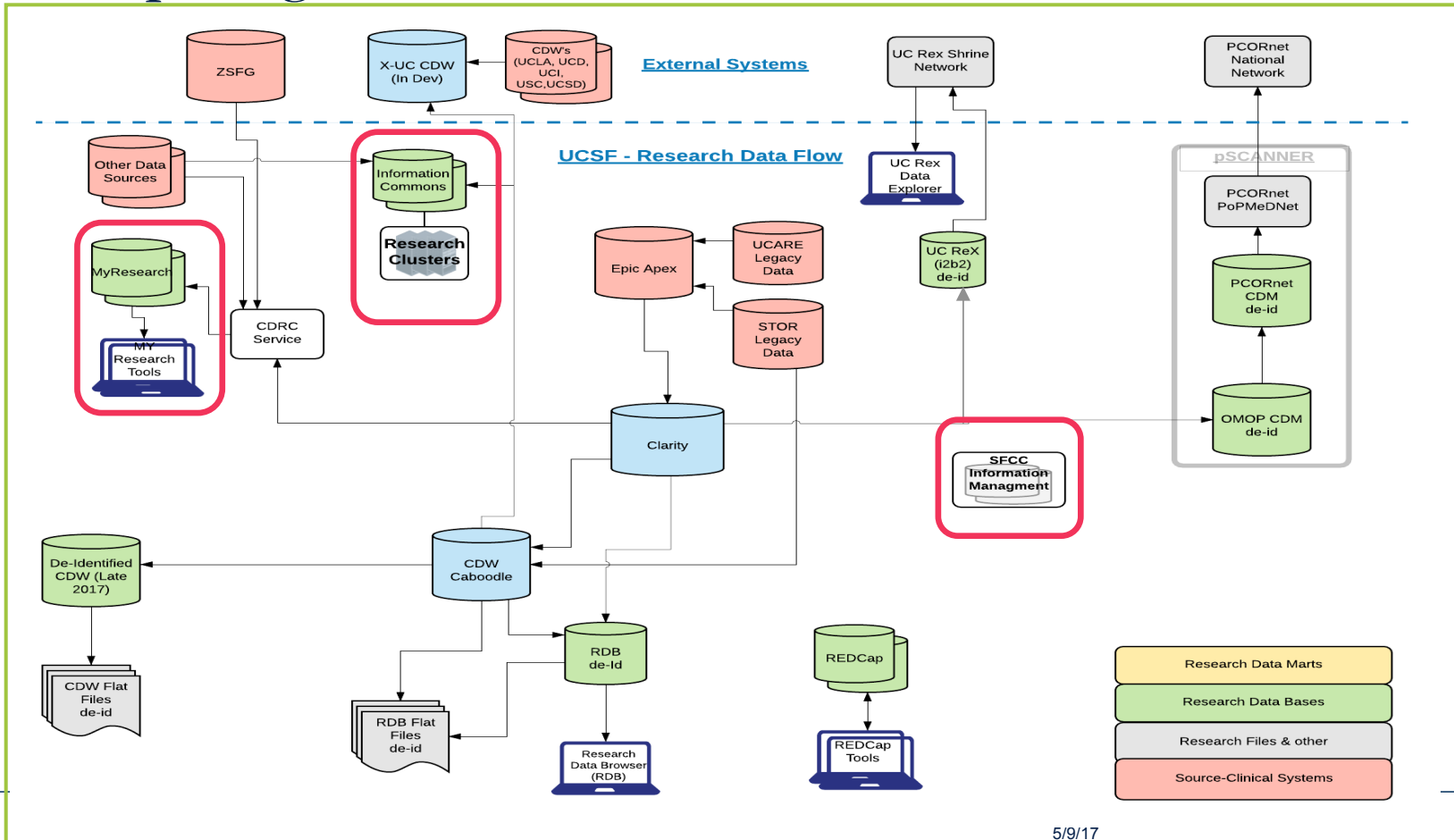


University of California  
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# *Research Computing Capabilities*

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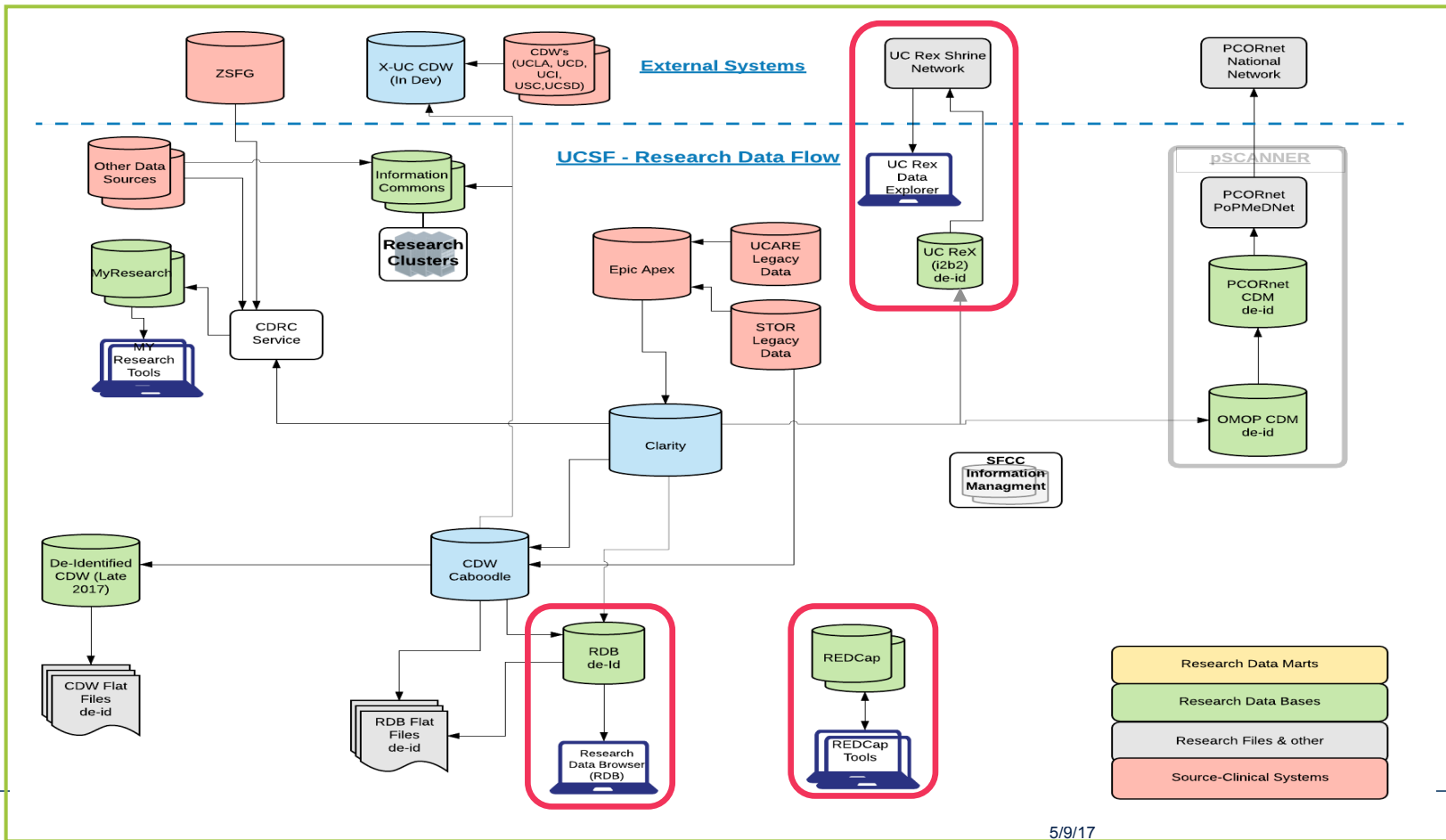
# Computing Platforms



# Computing Platforms Available

- **For limited scale** data and compute power, suitable for many current clinical data inquiries
  - MyResearch: Secure hosting for sensitive data, managed system and tools: Matlab, Python, R, STATA...
  
- **For larger scale**, your best bet may be within your department/center
  - IHG, CCC, QB3, MAC, SFCC EpiBio, .....
- **NEW:** Building up Wynton (Shared Research Computing Capability)
  - High performing, parallel file system, traditional HPC, modern OS
  - Co-op model
  - Listed contacts will try to fit your need.
  
- **Later in 2017-8:** Information Commons for Very Large shared multifactor data.

# Tools for Clinical Data Access



# Tools for Clinical Data Access

Each comes with its computing environment

- Research Data Browser
  - Explore ApeX data
  - Presented earlier
- REDCap
  - Well known clinical research environment
- UCReX data explorer
  - Covers all UC Health centers, cohort building and counting tool
  - Presented earlier
- Qualtrics
  - Handy survey tool

# Tools – Natural Language Processing (NLP)

Subject-specific (clinical text) tools usually do better than generic tools

- Clinical text-specific, most complete ← **start with this**
  - Apache clinical Text Analysis Knowledge Extraction System (cTAKES)
- Specific tools within clinical text pipeline (parsing, entity recognition, negation detection, relationships)
  - Columbia MedLEE, SymText, Regenstrief Extraction (REX)
- Generic building blocks
  - For Text: Google SyntaxNet, OpenNLP (bag of tools), Apache Lucene & Solr, Stanford CoreNLP
  - For Text, Images, Video: UIMA, Apache's Unstructured Information Management

*De-identification tools: stay tuned to web site*

credit: Dr. Xiao Hu, SoN

# Typical Services Offered by UCSF Cores



Links and contacts available on handouts:

[data.ucsf.edu](http://data.ucsf.edu)



## Real-time Feedback

**On your phone, tablet, laptop – Go to:**

**slido.com**

**Enter event code:**

**clinicaldata**