

# Useful storage options and research tools

Experiment with available tools and services that make research so much easier

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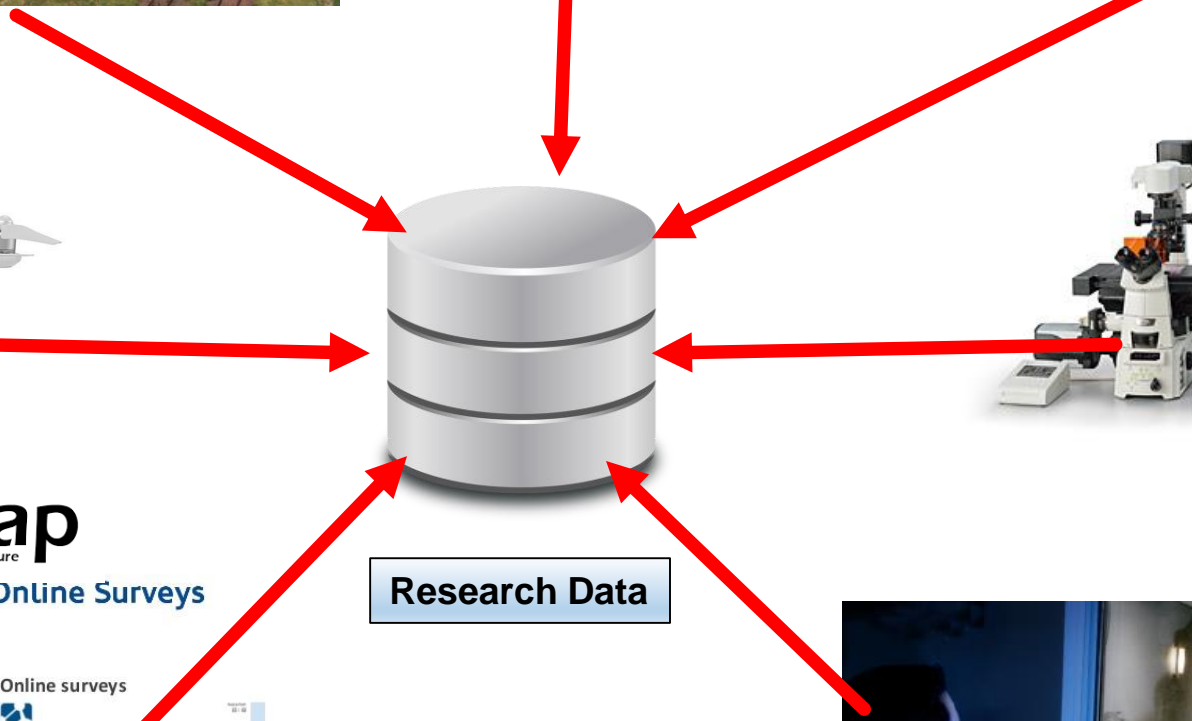
# Research data lifecycle



Resourcing your research

# Data Acquisition



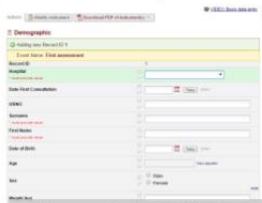


Research Data

**REDCap**  
Research Electronic Data Capture

### Direct data entry vs Online Surveys

#### Direct data entry

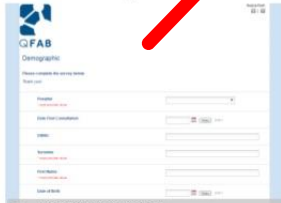


User needs to login to REDCap before they can enter data

- usually group people
- Can enter

vs

#### Online surveys



• Usually entered by participant/patient  
• Public link (allows multiple times)

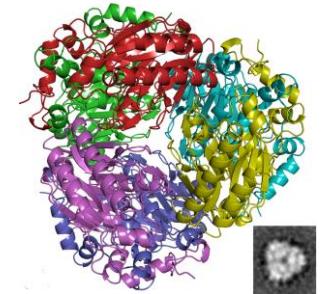
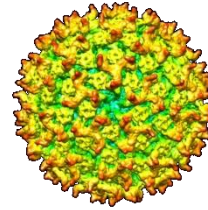
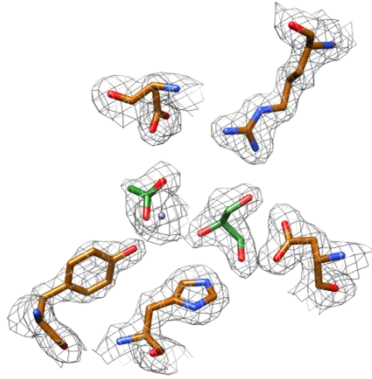
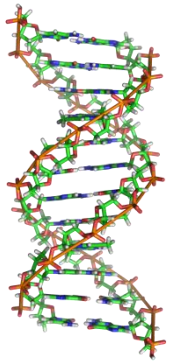
- to one
- by date and/or condition



# Case Study: - EMU & SBRU



Prof. Sewell



## Image Acquisition

Gathering Data

## What storage options are available to UCT researchers?



UCT ResearchData

## Cloud Storage Options



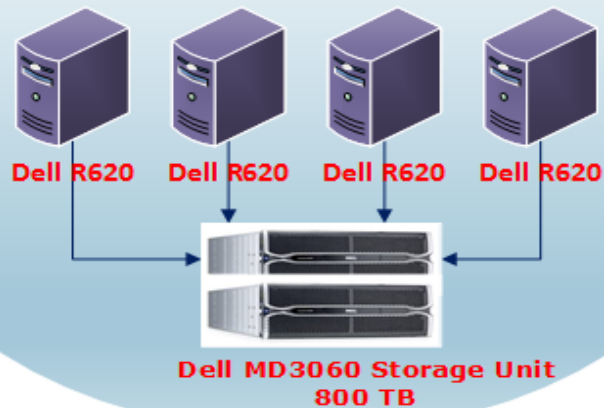
Your UCT Network drives

**F:** (Personal)

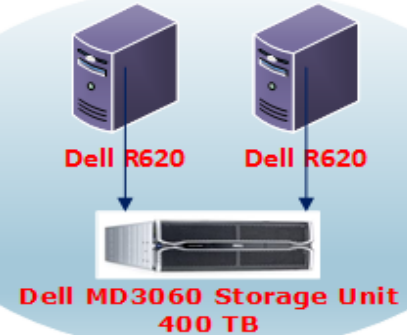
**G:** (Shared)

# Research data storage

## UCT Upper Campus Data Centre (UCDC)

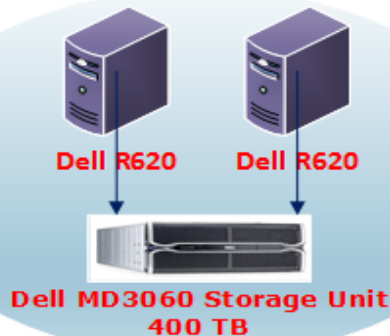


Research Data replicated to the Neotel data centre



## Neotel Data Centre

Research Data replicated to the Data Centre at ICTS on Main Building



## ICTS on Main Data Centre

### Research Data Storage:

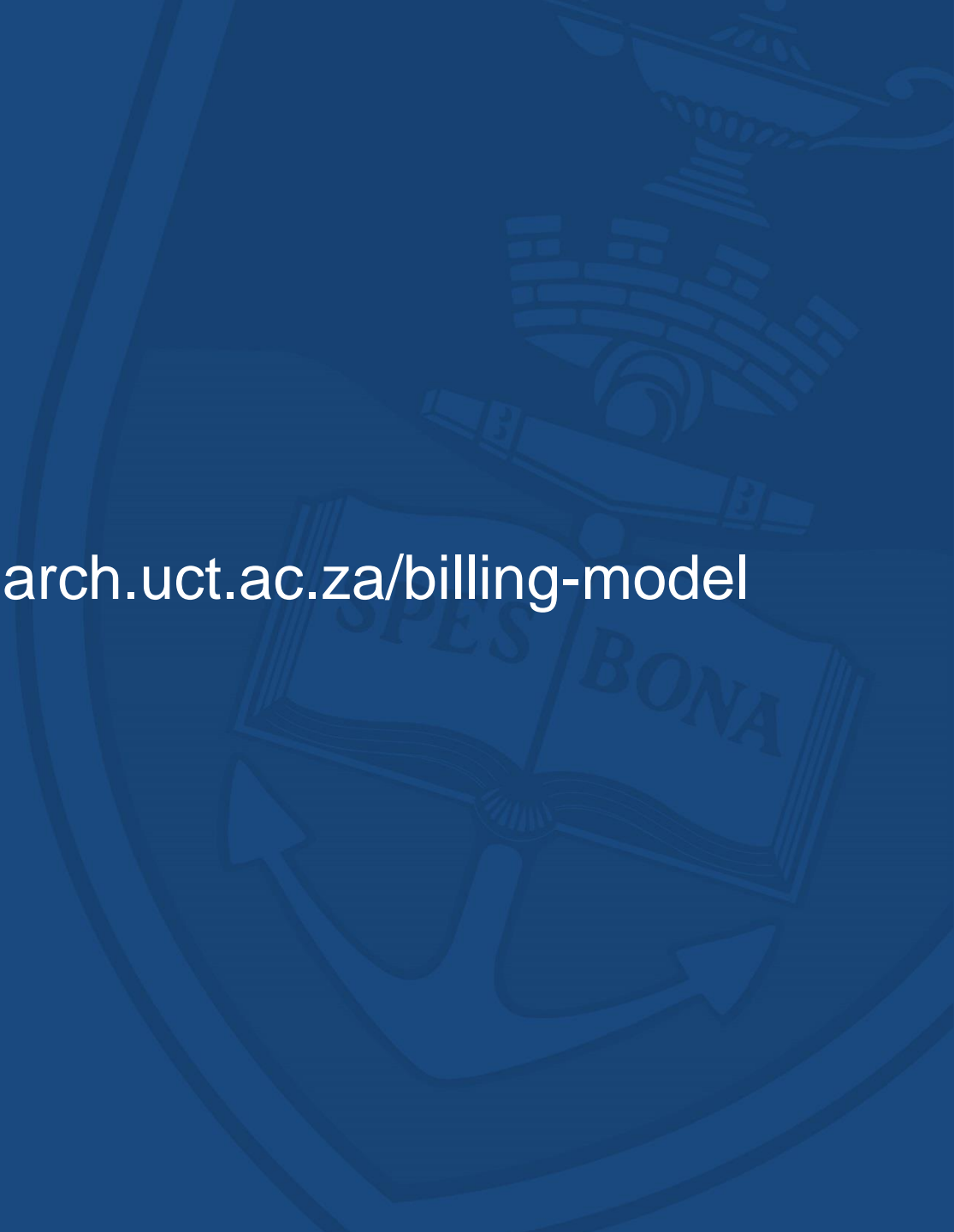
- Accessible from anywhere in the world
- Highly available and fully redundant
- Huge volumes available
- Secure access via UCT credentials
- Data accessible via multiple devices
- Data can be shared between individuals and groups of users
- Data can be transferred via multiple software tools
- Data can be access via standard file tools as well as a web browser
- Accessible on Windows, Linux or Apple Mac computers

# Data Access & Collaboration

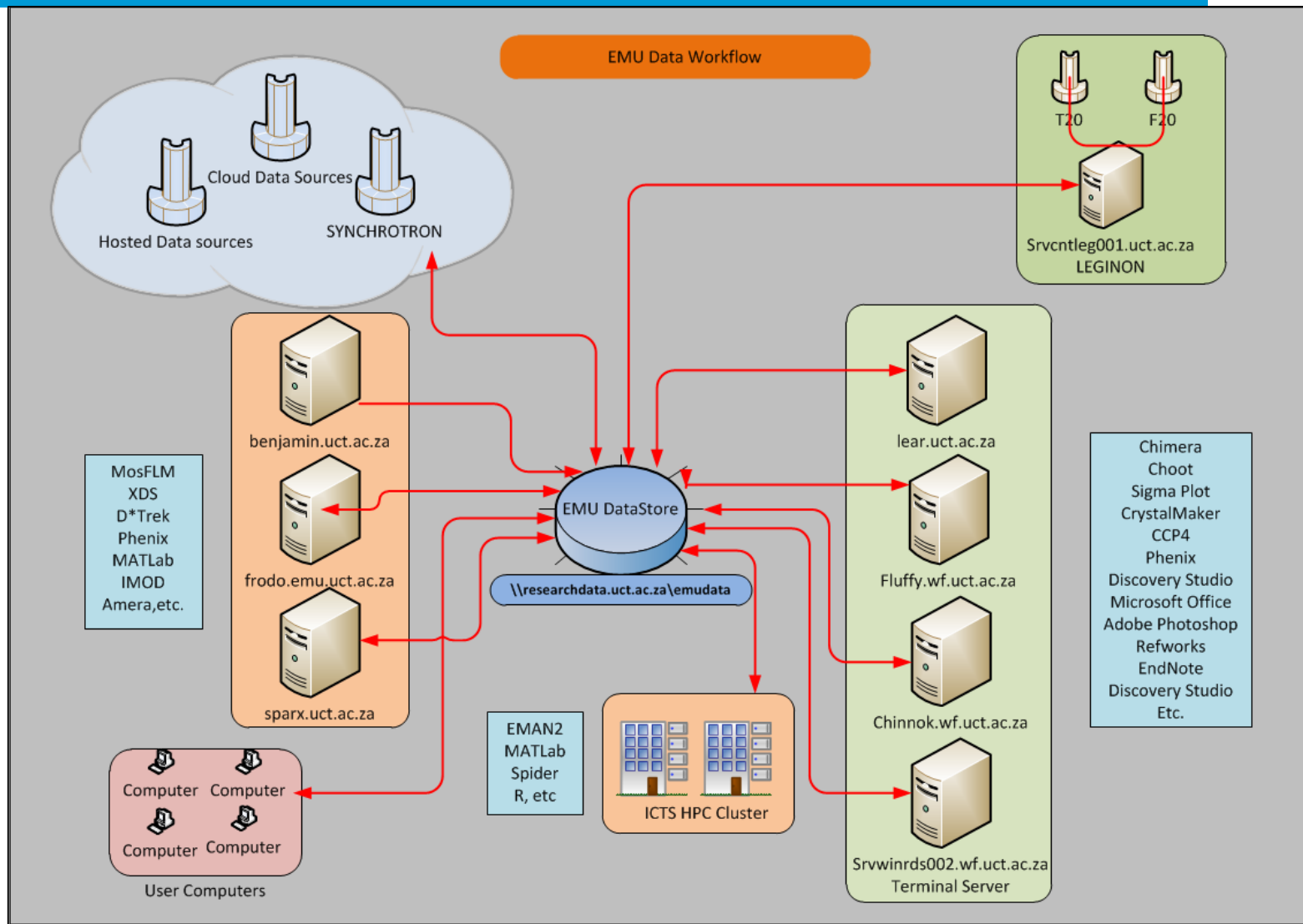




<http://www.eresearch.uct.ac.za/billing-model>



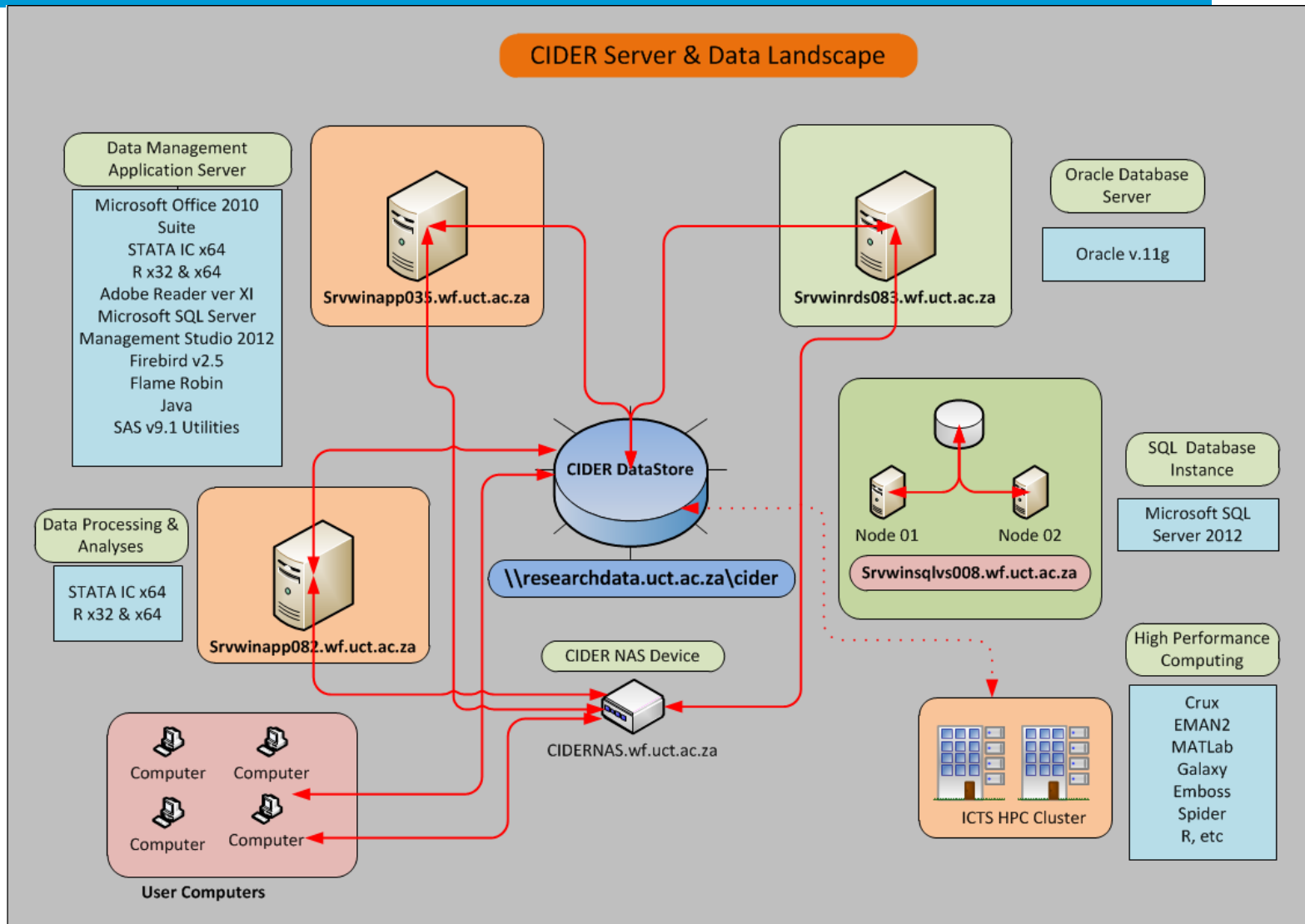
# Electron Microscope Unit:



## Acquiring Data



# Case Study - CIDER



Gathering Data

Demo



# Collaboration



## ❑ Local (UCT) Platforms:

- Skype
- Adobe Connect
- Polycom



## ❑ National Platforms:

- Vidyo – Managed by Tenet
- MConf Web Conferencing – Managed by SANREN



## ❑ International Platforms:

- Google Hangouts

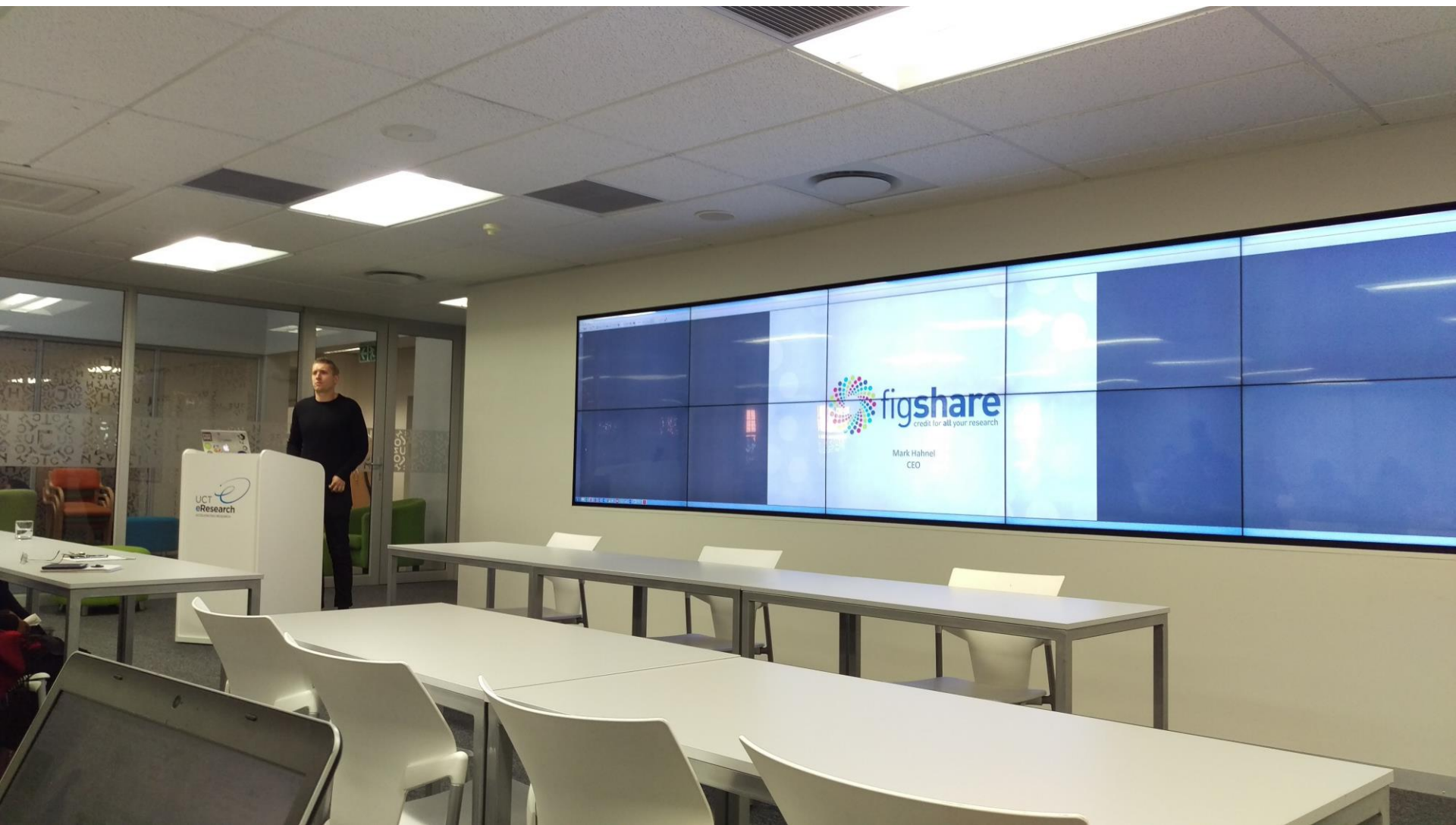


Hlanganani Junction, Level 5, Chancellor Oppenheimer Library



*An illustration of the 20-million-pixel visualisation wall in the Hlanganani Junction, Chancellor Oppenheimer Library, which will serve as a space for collaboration and engagement for researchers.*

# eResearch Visualisation Wall





# eResearch Visualisation Wall



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IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

**Research Collaboration**

18 August 2016



## Office 365

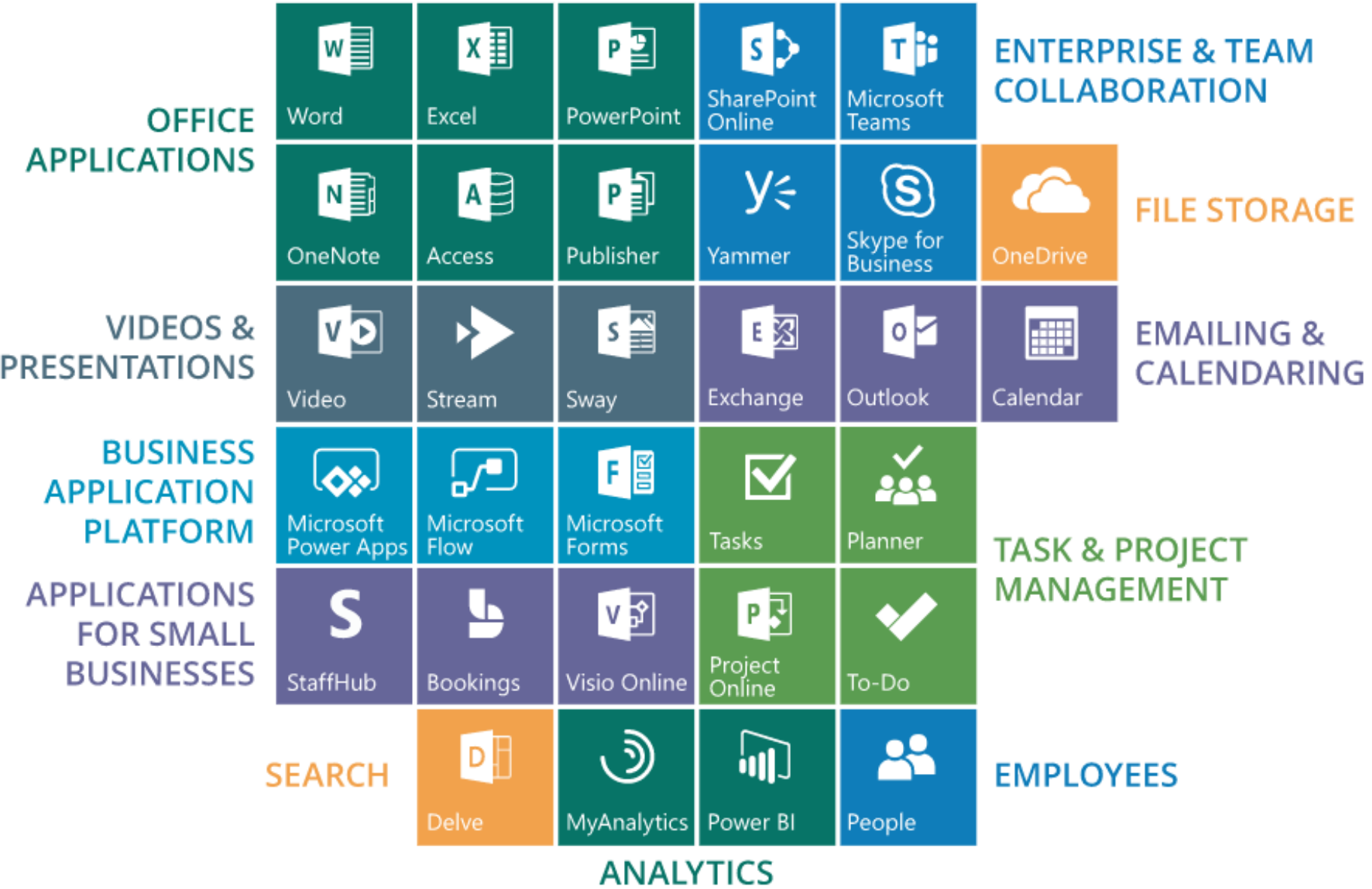


## Google Apps

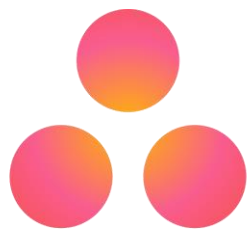


- UCT is licensed for most of the applications in the  
Microsoft Office365 and Google G Suite

# Microsoft Collaboration Platforms & Tools



# Collaboration Tools – Team Collaboration



# asana



- Open Source - Trello

The screenshot shows a Trello board titled "CXO Items" with a sub-label "BITSAA". The board is organized into three columns: "To Do", "Doing", and "Done".

- To Do:**
  - Comms and Marketing Org Structure (May 9)
  - BITSAA Taxes (1 comment)
  - CXO Call followups & meeting minutes
  - Goodies for Leaders (0/4)
  - Org Chart + Contact Infos / Addresses
  - Tracking Sheet for Teams' Representation (Sunday Calls)
  - Set up All-hands Call (1/3)
- Doing:**
  - BLP (3/4)
  - Goals/Agenda for all teams and next year (Jul 3)
  - Goals Discussions (Jul 9, 10/12)
  - Comms Transitions
  - 30 U 30 Awards (3/4)
  - Trello Post on how to use on Blog & Post on Leaders group (Jul 2)
- Done:**
  - Certificate Roll out (3 votes, 6 comments)
  - CQN (May 8, 1/4)
  - Operations JD (1 comment)
  - FR JD (5 comments, 3/3)
  - Comms, Marketing, PR and Sandpaper JDs (1 vote, 2 comments, 1 reply)
  - BLP Teaser (1 comment, 2/2)
  - Outreach / Ch-R JD
  - Agenda Calendar

On the right side, there are sections for "Members" (with profile pictures and an "Add Members..." button), "Board" (with "Options", "Add List", and "Search and Filter Cards" buttons), and "Activity" (showing recent actions like "Vijay Sharma added Trello Post on how to use on Blog & Post on Leaders group to Doing and joined. an hour ago" and "Rohit Koul Goals Discussions" with a list of completed tasks).

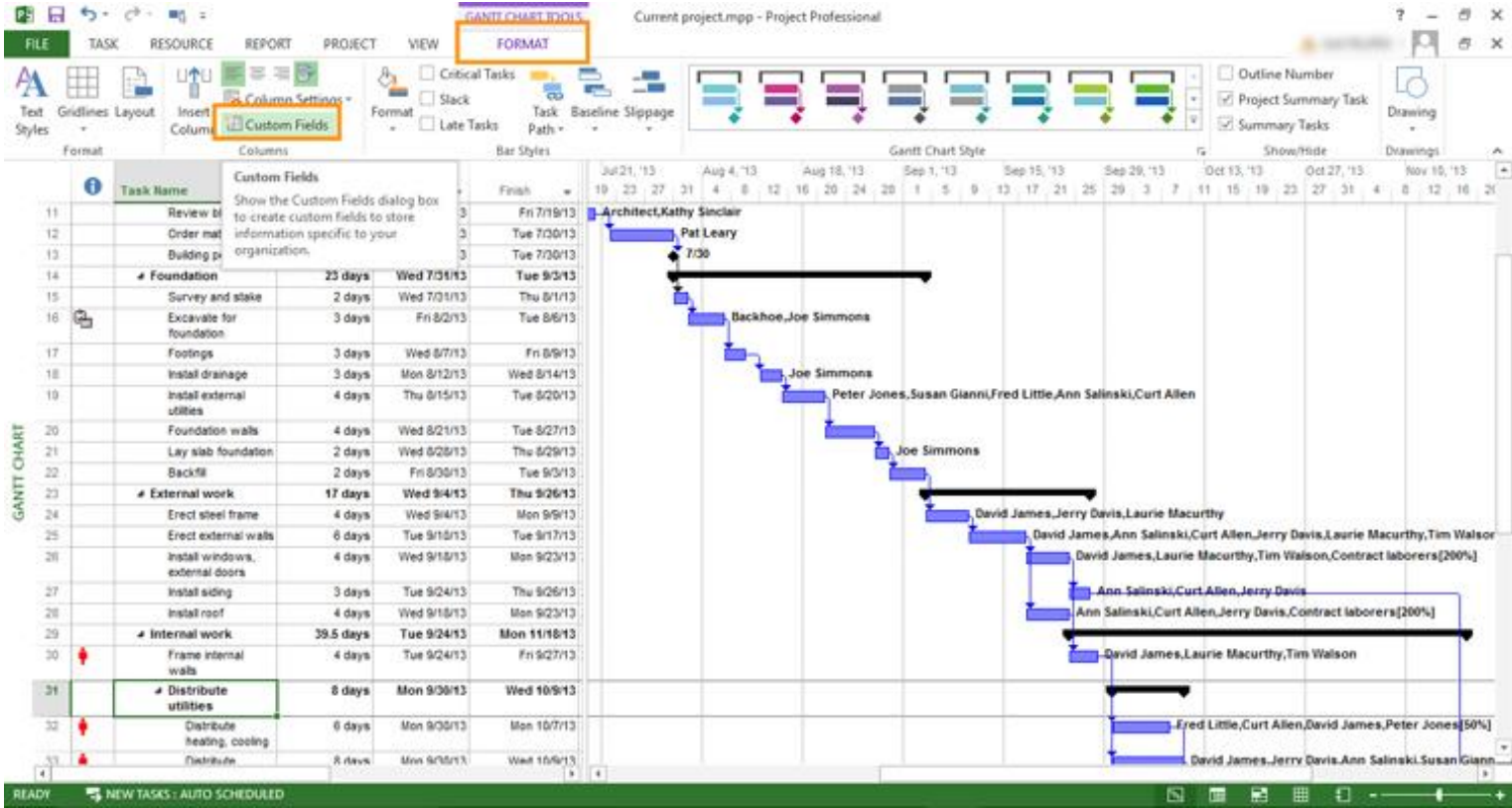
- Open Source - **Slack**



The screenshot shows a Slack workspace for 'Acme Sites'. The left sidebar lists channels: #api, #bugs, #cats, #engineering (with 2 unread messages), #general (selected), #marketing, #ops, #products, #project-x, #project-y, #project-z, #random, #sales, #support, and #web. Below channels are direct messages (slackbot, kevin) and private groups (design-team). The main channel view is '#general' with 11 members. Messages include: david (9:34 AM) about an all-hands meeting; kevin (9:35 AM) saying 'awesome'; david (10:07 AM) saying 'thanks everyone, that was a great meeting'; don (10:07 AM) saying 'nice and short too!'; kevin (10:07 AM) saying 'a record, I think'; jarred (10:08 AM) congratulating jessica; jessica (10:09 AM) saying 'thanks guys'; mike (10:09 AM) saying 'jessica'; zcole (10:10 AM) saying 'mike, I'll send you the job description for the new ops position this afternoon'; mike (10:11 AM) saying 'sounds good. I'm glad we are able to get you some help'; and zcole (10:11 AM) saying 'me too'. On the right, the 'All File Types' sidebar shows shared files: 'Mobile In-Store Research from Google' (15MB PDF), 'Reality TV' (20KB JPG), 'Email Costs Calculator Template' (11KB XLSX), and 'Facebook Q2, 2013 Earnings Slides' (2MB PDF).

# Collaboration & Project Management – Microsoft Project

- Commercial - Microsoft Project (UCT site License)



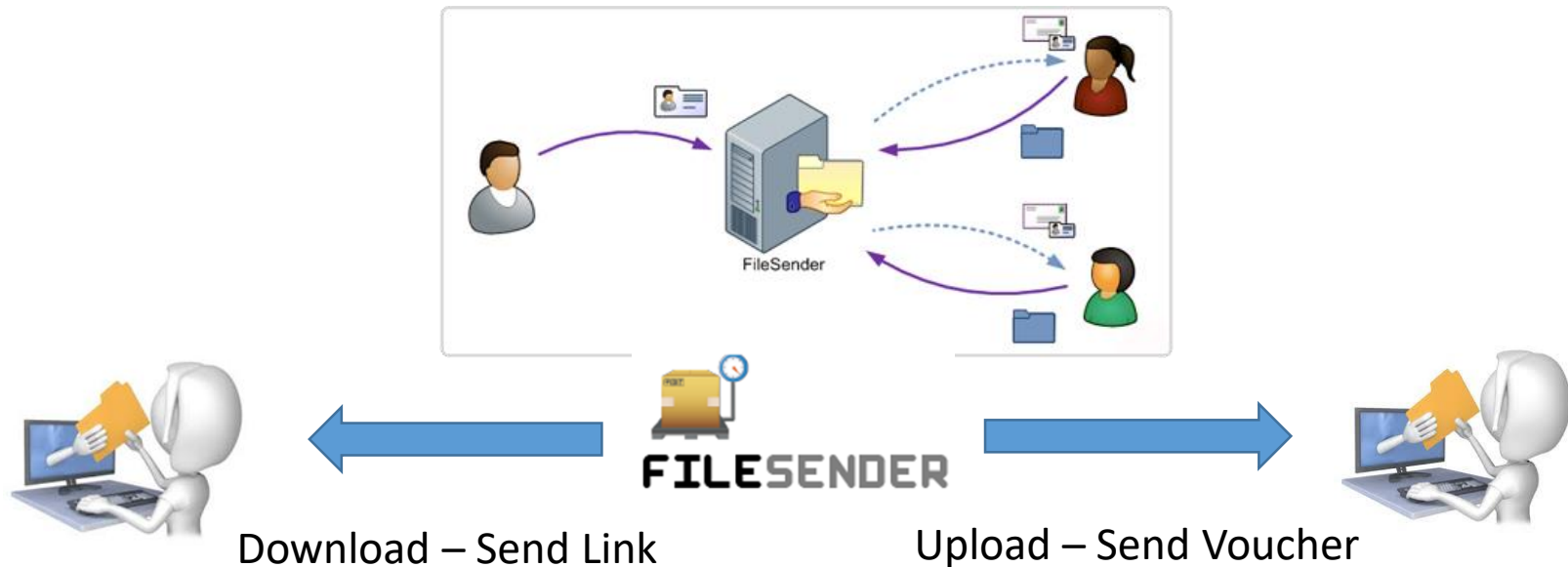
# Data Transfer & Sharing Tools





# Data Transfers

File Size	Tool to use
< 20MB file	→ Can Use Email
> 20Mb < 128GB	→ Use FileSender
Bigger than 128GB	→ Use Globus or (GridFTP Tool)
Bigger than 10TB	→ Use the SANREN Data Transfer Nodes (DTN)





- Globus Online - <https://www.globus.org/>
- FileSender - <https://filesend.uct.ac.za>
- Aspera - <http://asperasoft.com/>





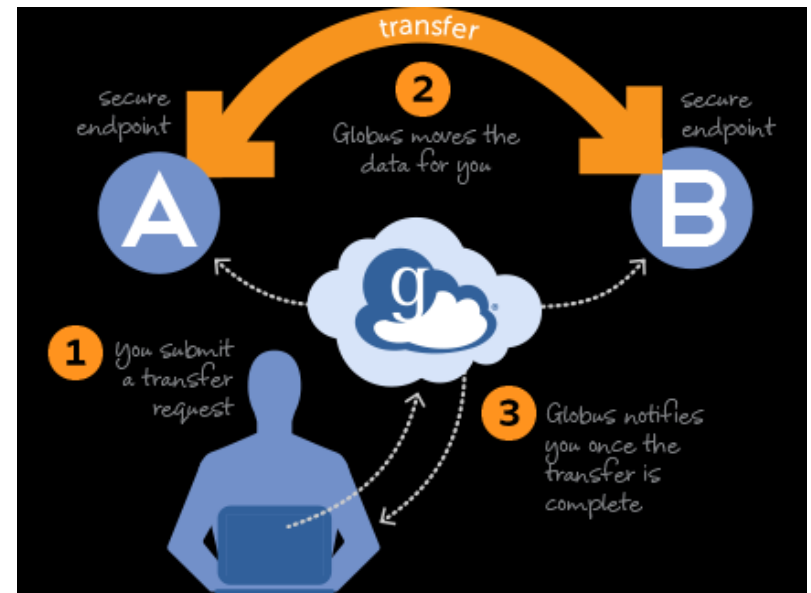
- For moving big data sets from across the world
- 3 Data Transfer Nodes (DTNs):
  - Cape Town
  - Johannesburg
  - Pretoria

Please email [engage@sanren.ac.za](mailto:engage@sanren.ac.za)



# Dataset Transfer Tools – Globus Online

- GridFTP Made Easy
- Software-as-a-service (SAAS)
- Free Option
- Developed at University of Chicago and Argonne National Laboratory



## Transfer Files

RECENT ACTIVITY 0 0 0

Endpoint

Path

Endpoint

Path

Start by selecting an endpoint.

Start by selecting an endpoint.

Label This Transfer

This will be displayed in your transfer activity.

**Transfer Settings**

- sync - only transfer new or changed files
- delete files on destination that do not exist on source
- preserve source file modification times
- verify file integrity after transfer
- encrypt transfer

[Get Globus Connect Personal](#)  
Turn your computer into an endpoint.

- Send files to external collaborators
- Send guest vouchers
- Not suitable for multiple files unless zipped

<https://filesend.uct.ac.za>



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FILESENDER

Send File Guest Voucher My Files Help About Log Off

Welcome 01436901 1.6.1 HTML 5 ✓

**Send a file**

To:

From: heine.dejager@uct.ac.za

Subject: (optional)

Message: (optional)

Expiry date:

Select your file:  No file chosen

I accept the terms and conditions of this service. [Show/Hide]

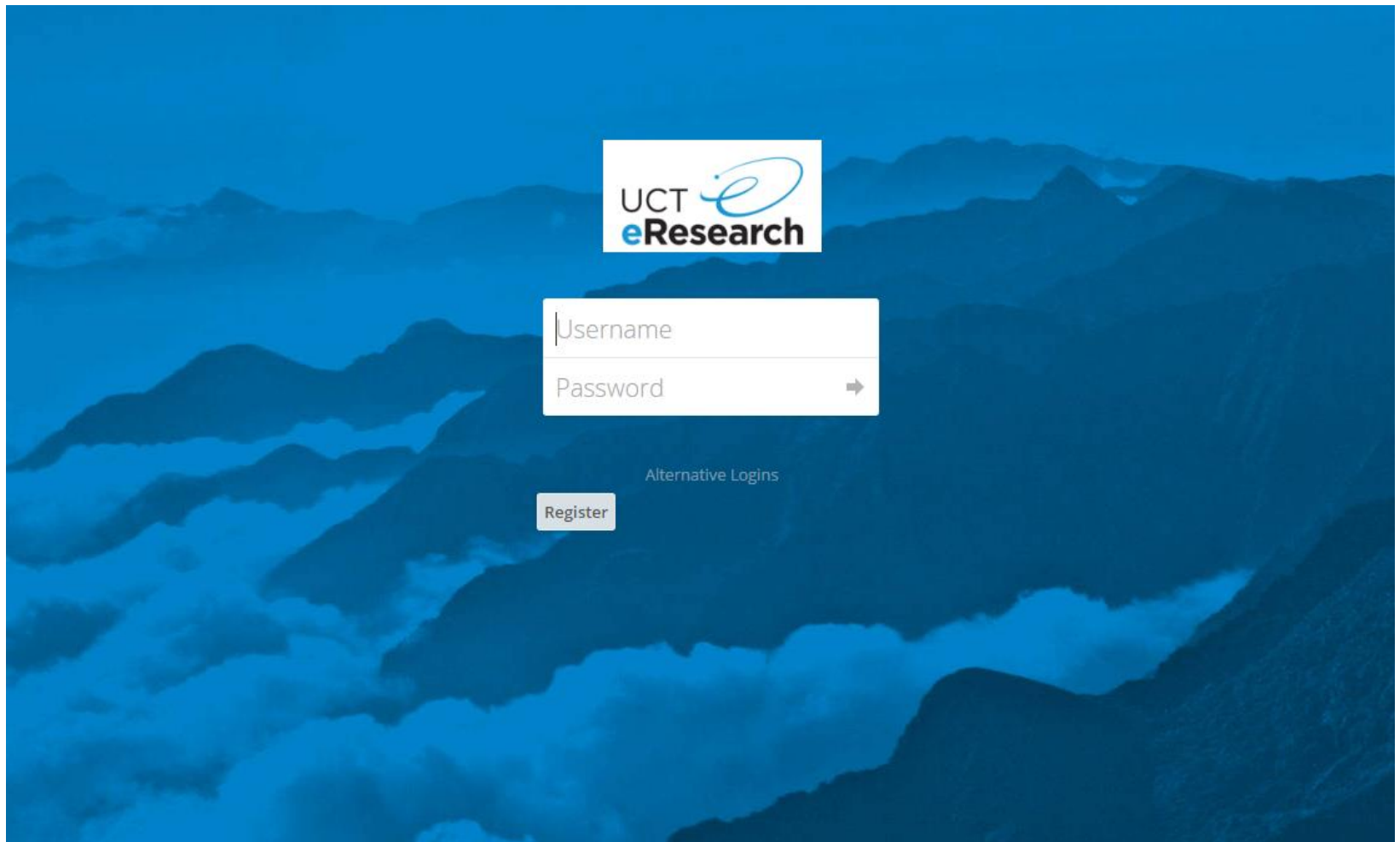
- 1 Enter delivery email address(es)
- 2 Set expiry date
- 3 Browse for a file
- 4 Click Send

Demo










# Web-based File Sharing – NextCloud










# Web-based File Sharing – NextCloud

UCT eResearch ACCELERATING RESEARCH Files  

- All files
- Favorites
- Shared with you
- Shared with others
- Shared by link
- Tags
- External storage
- Deleted files
- Settings

<input type="checkbox"/>	Name ▲		Size	Modified
	Documents	 	35 KB	20 days ago
	Photos	 	663 KB	20 days ago
	2 folders		698 KB	





# Q & A

