



COMPUTING AND
INFORMATION TECHNOLOGY
Research Computing and Data

Virtual Town Hall

December 2022

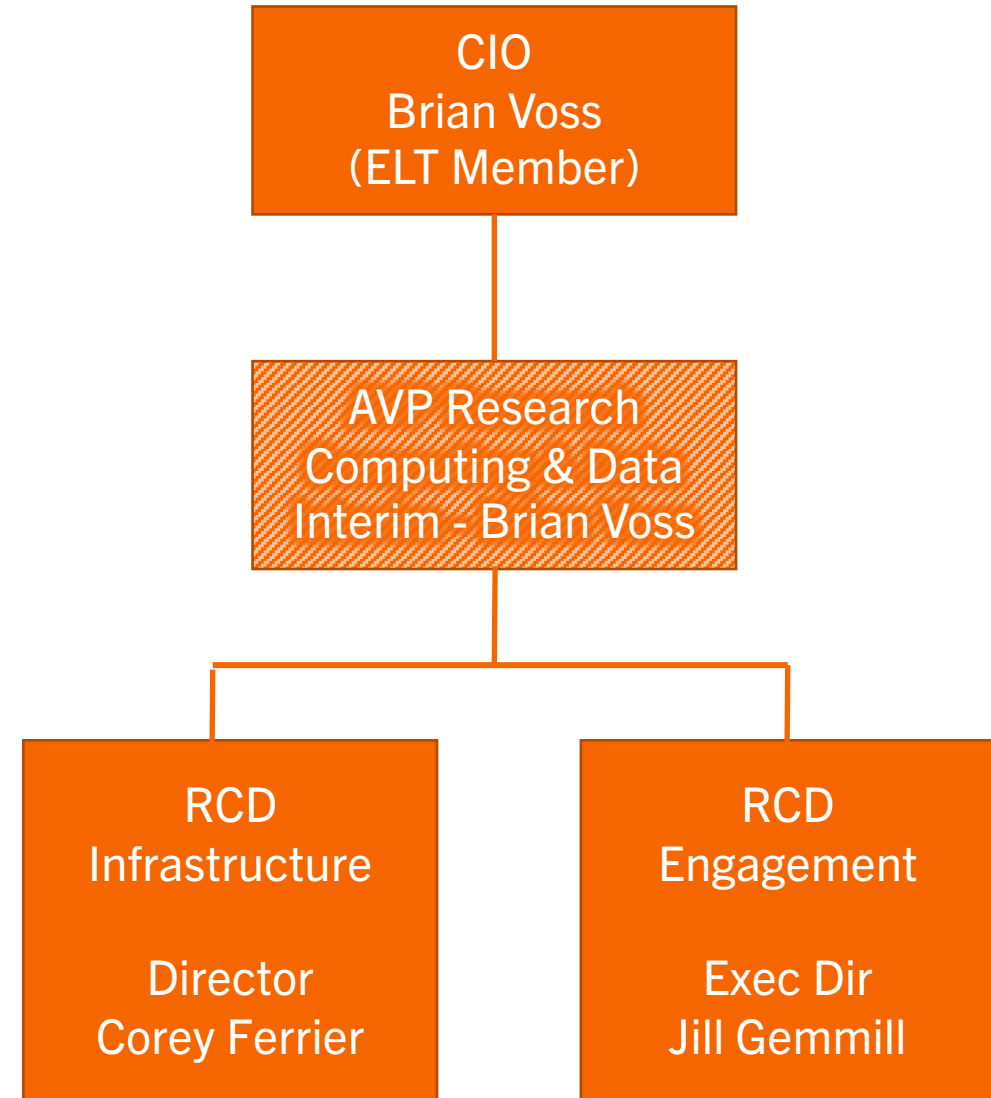
To Participate

- Type questions into Zoom Q&A.
 - You can ask anonymously.
- Raise your hand to speak.

Agenda

- Introducing Research Computing & Data (RCD)
Organization and People
- Overview of new infrastructure
- Improving and expanding research facilitation
- Open discussion and Q&A

Leadership



New Infrastructure

Research Computing Infrastructure Refresh

Phase 1 FY23:
\$3.5M

Phase 2 FY24:
\$2.5M

EVPN/VXLAN Network

Supports network virtualization for
traffic isolation

\$350K
(spent)

Higher-Ed
Commercial
Cloud
Services

National
Supercomputing
Centers

Internet

Other
Institutions
and
Research
Platforms

AI Compute Cluster

High-end 4 and 8-
way GPU nodes for
AI/ML/DL training

HIPAA?

\$2M
(budgeted)

CUI Compute Nodes and Storage

Separate secure
and compliant
research
environment

\$500K
(budgeted)

DATA LAKE

Multipurpose research storage
accessible from clusters,
desktops, and labs

5PB storage with backups

HIPPA?

\$1.5M
(spent)

NEW HPC Cluster

Dual CPU/GPU
nodes

SLURM

HIPAA?

\$1.2M
(spent)

Clemson research
desktop machines

Clemson research
labs

GIS VDI Hardware

Appropriately
sized to support
ARCGIS PRO

\$145K
(spent)

HIPAA/CUI VDI Instances

Isolated Storage for HIPAA/CUI VDI Instances

Isolated from
general purpose
VDI storage

\$200K
(budgeted)

PALMETTO HPC Cluster

Dual CPU/GPU
nodes

OpenPBS

Renaissance 2022

AVP RESEARCH COMPUTING

TBD – Brian Voss, Interim

**DIRECTOR,
INFRASTRUCTURE**

C. Ferrier

**EXECUTIVE DIRECTOR,
ENGAGEMENT**



Jill Gemmill, PhD

**DIRECTOR, CLOUD &
SOFTWARE SERVICES**



Sam Hoover

**DIRECTOR,
APPLIED MACHINE
LEARNING**



Hudson Smith, PhD

**DIRECTOR, ADVANCED RESEARCH
COMPUTING & DATA SUPPORT**



Asher Antao



Matt Moersen



Doug Dawson



Ben Godfrey



Linh Ngo, PhD

POTENTIAL NEW AREAS

- Concierge Services
- Regulated Data Help
- Documentation
- Data Analytics
- Life Sciences Scientist
- Materials Science Scientist
- Visualization

WHAT DO YOU NEED?



**EXECUTIVE DIRECTOR,
GEOSPATIAL
TECHNOLOGIES CENTER**



Patricia Carbajales



M. Mahani






G. Kato



P. Claflin

LEGEND

-  Existing Position
-  NEW Filled
-  NEW Recruiting
-  Re-Assigned

Points for Discussion

- Future of Condo-Node Model – no annual funding
- Format for RCD infrastructure (Palmetto + Storage) and usage policy governance
- What are your current pain points?
- Other?

Discussion & Questions ?

Reminder:

You can use the Q&A and Raise Hand features to participate.

What would be the best form for RCD infrastructure governance and usage policies?

e.g. how to allocate data lake storage?

e.g. what to purchase next?

- Open to anyone interested?
- Balance of colleges/owners?
- Part of the Faculty Senate committee?

What are your pain points?

- Short on compute power or data storage space?
- Need help with tuning code or applications?
- Partnership support for grants?
- Something else?

What is the future of the Condo-Node Model?

- We no longer have annual funding from Clemson for annual buys.

