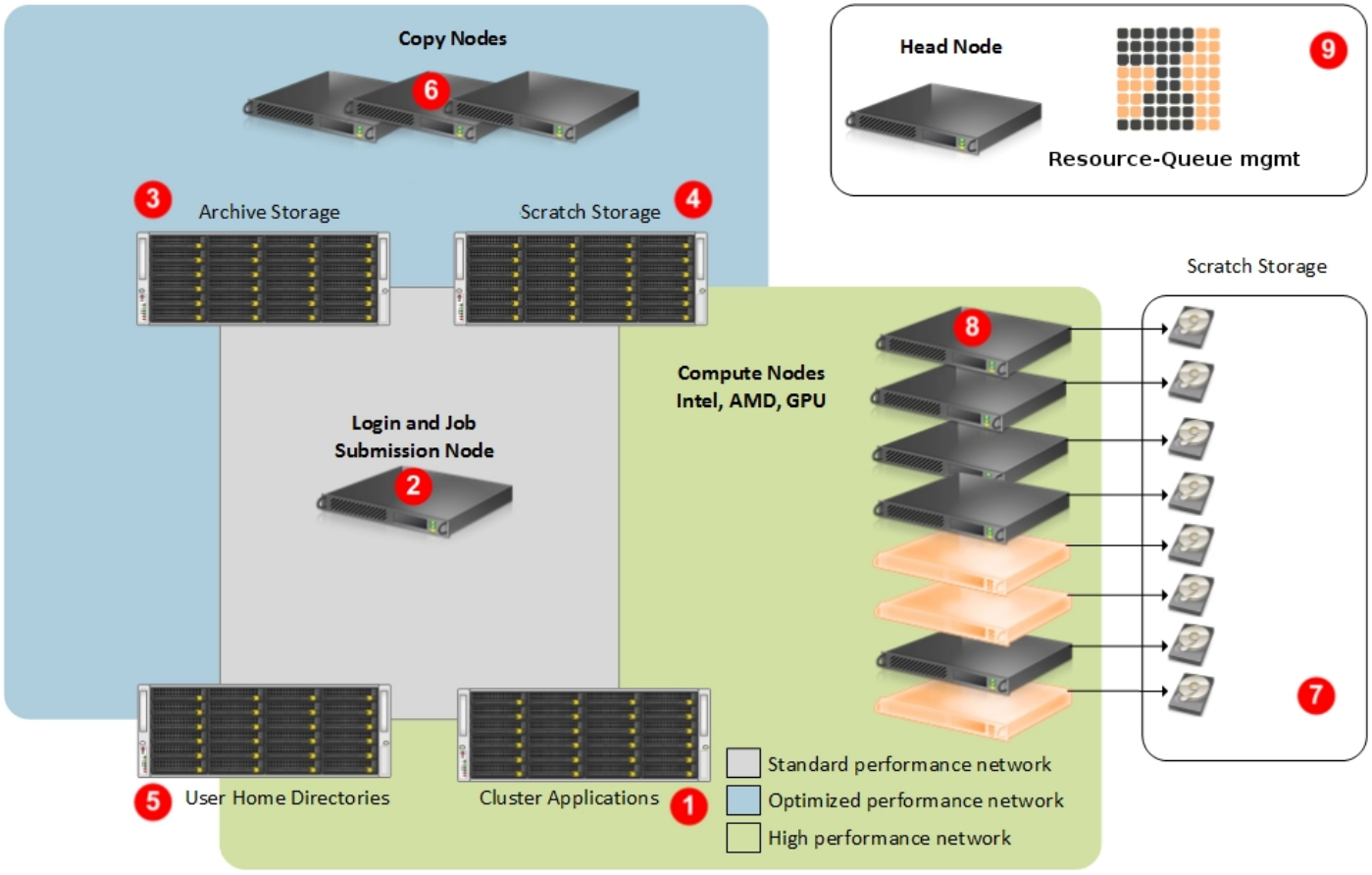
High Performance Computing open forum

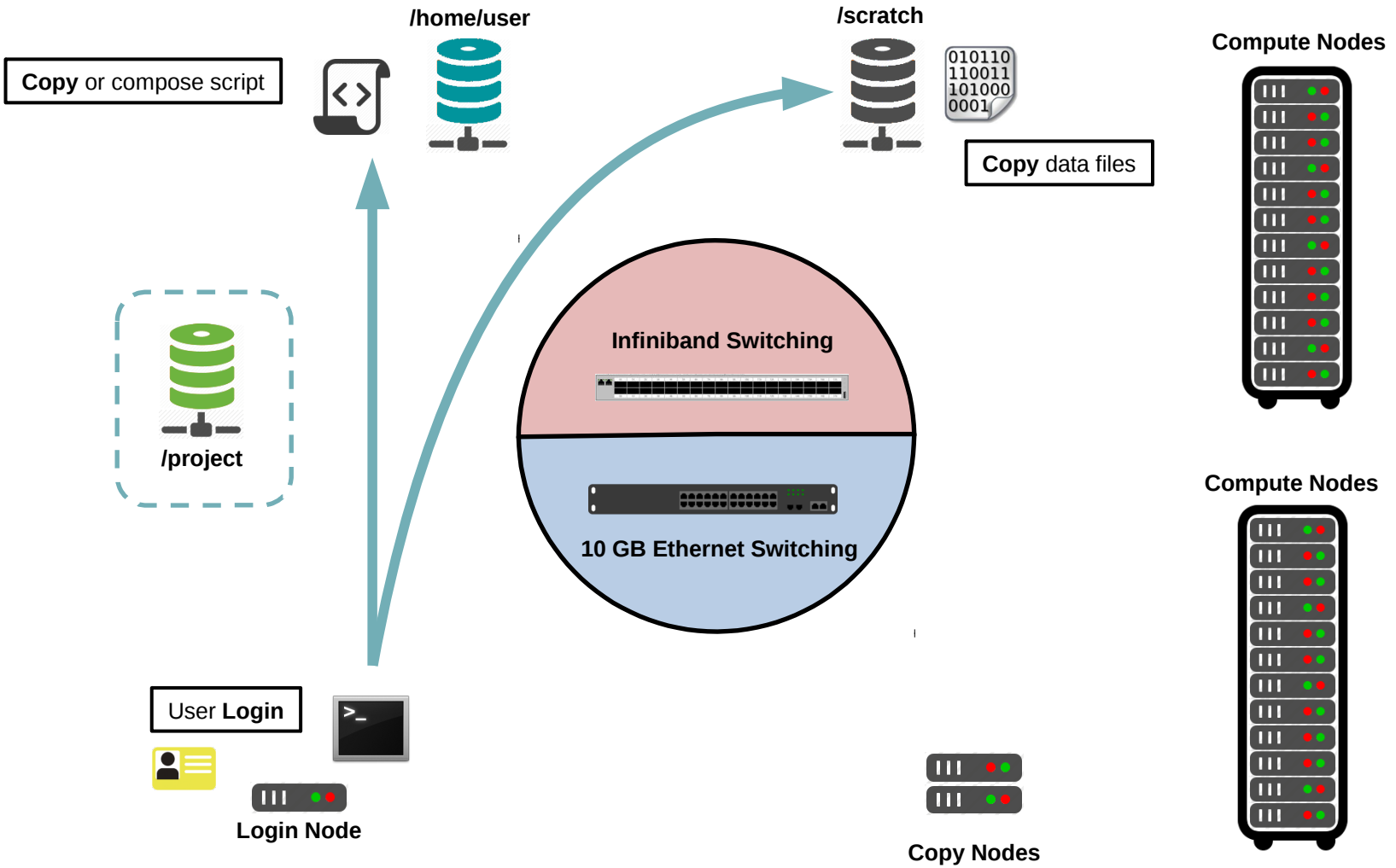
Host
Lawrence Kearney
Georgia Advanced Computing Resource Centre (GACRC)
The University of Georgia (USA)
lkearney@uga.edu

SUSE Panel
Kai Dupke (Sr. Product Mgr.)
Vojtech Pavlik (SUSE Lab Dir.)
SUSE Resource 3 ?
SUSE Resource 4 ?

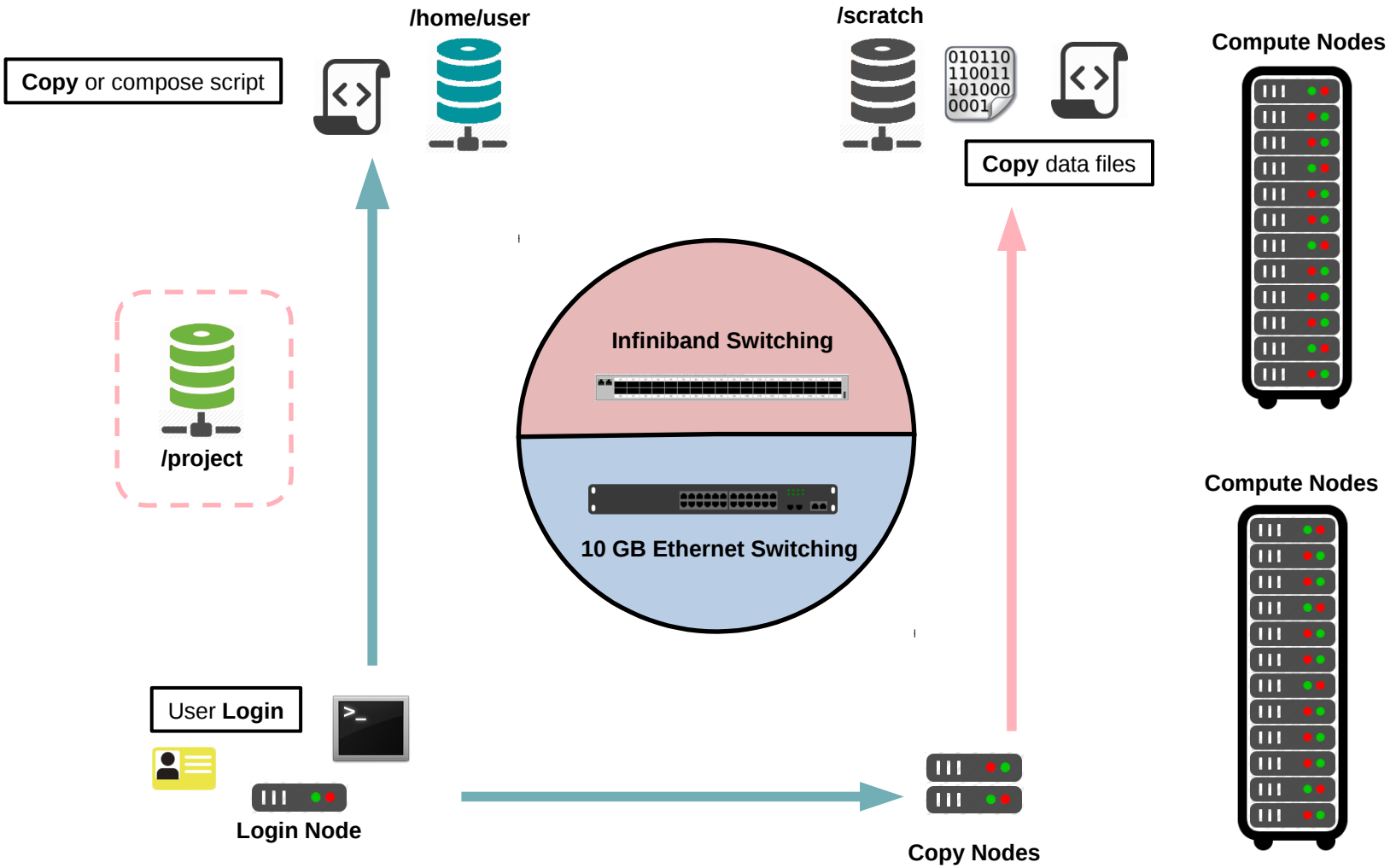
A typical cluster



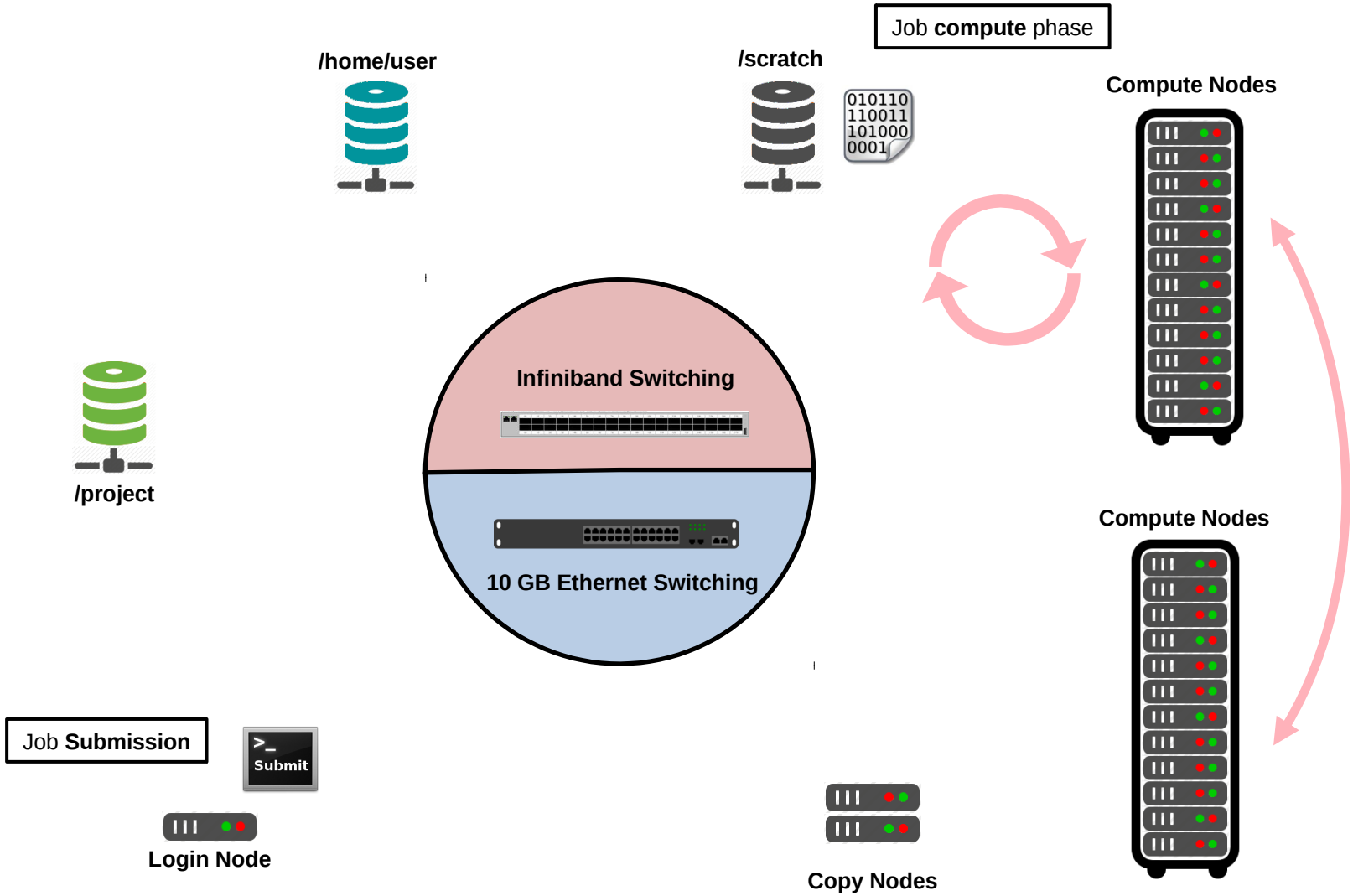
Typical HPC work flow



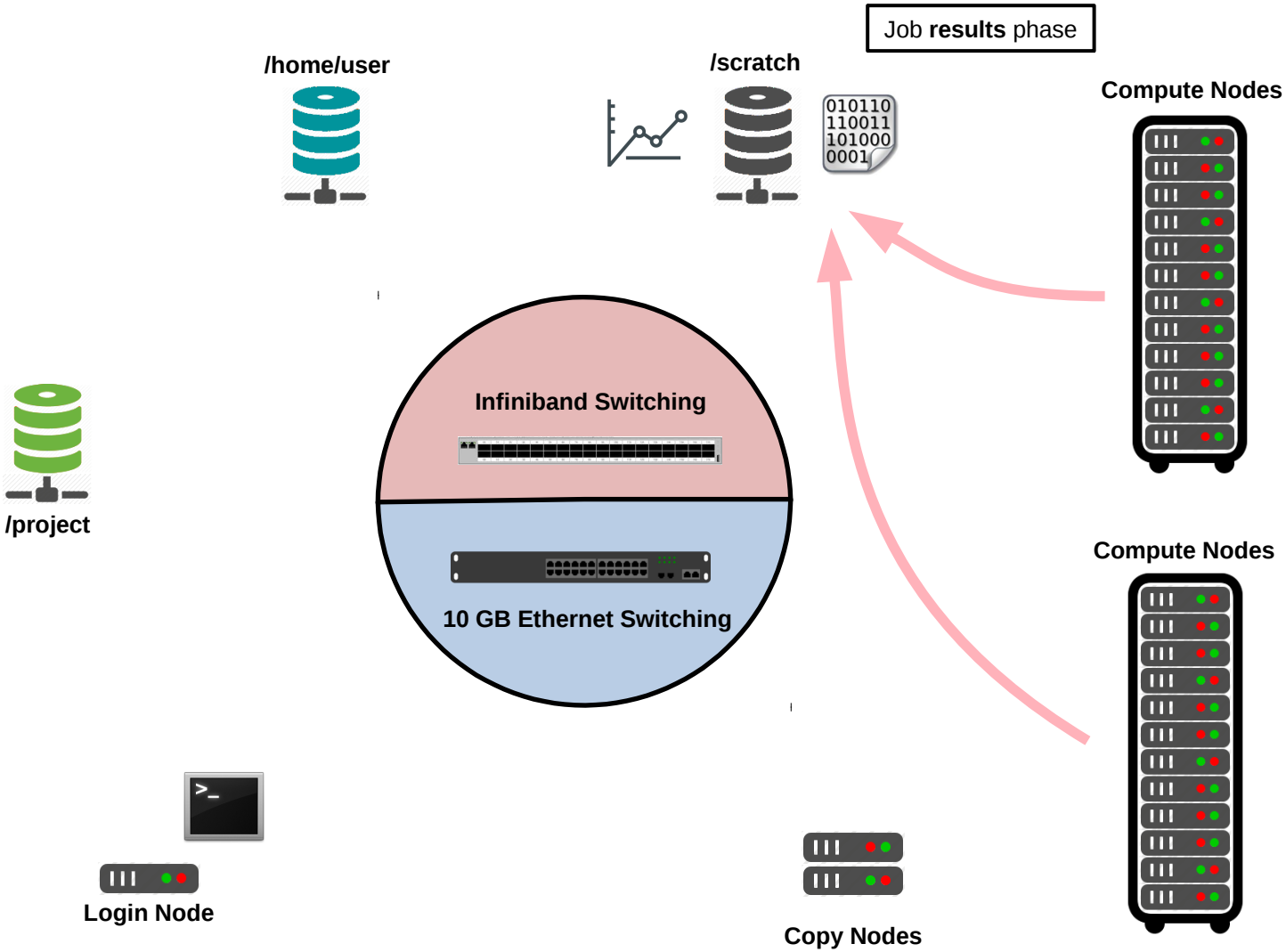
Typical HPC work flow



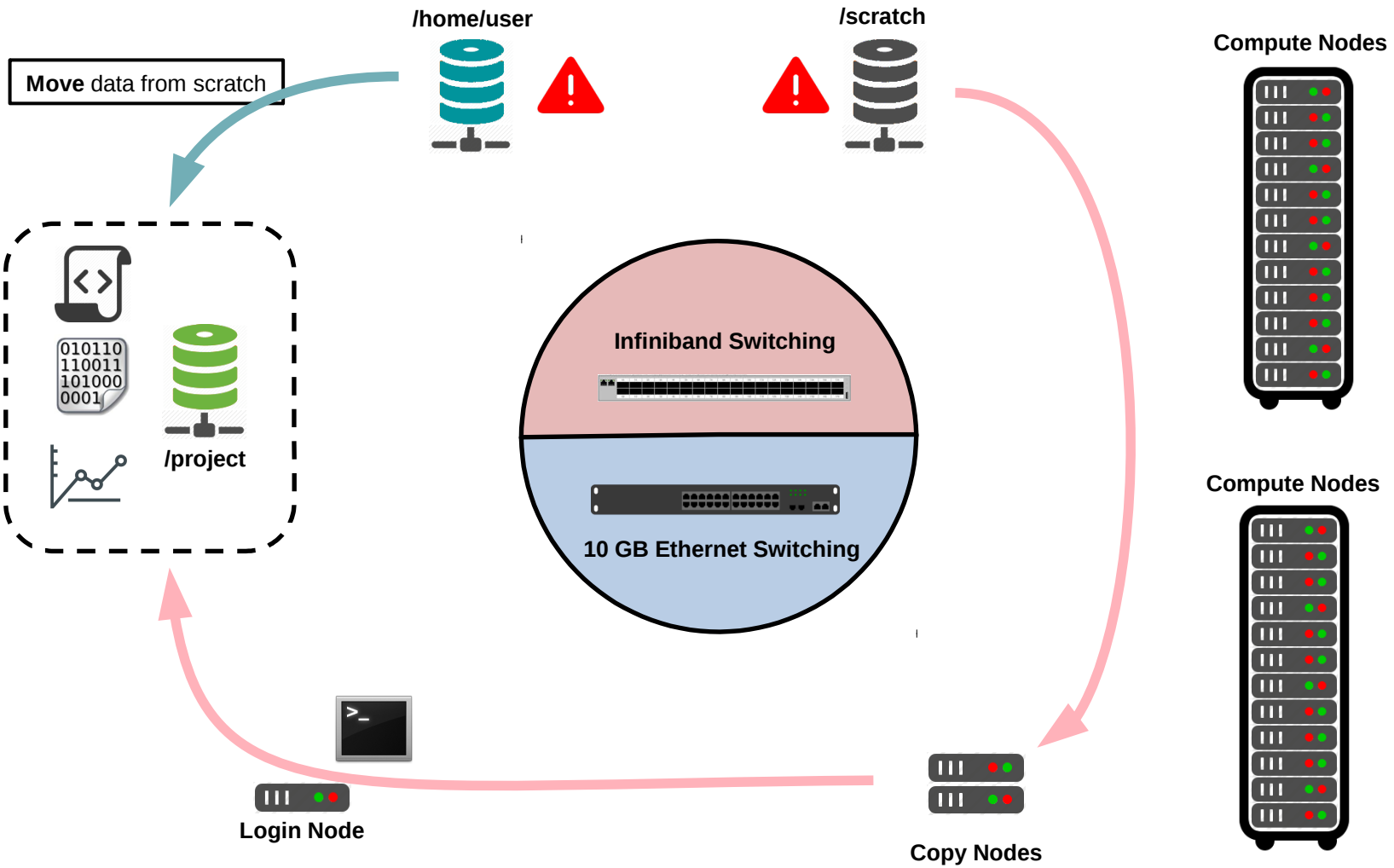
Typical HPC work flow



Typical HPC work flow



Typical HPC work flow



Infrastructure discussion points

Typical system components

Login nodes

Data transfer (copy) nodes

Head nodes

Compute nodes and resources

Software build nodes

Does virtualisation help?

Infrastructure discussion points

Parallelism where ever possible

File systems

File transfer at edge systems

Computing workloads (job types, HPC, HTC)

Extended process table space

Infrastructure discussion points

Platform software components

Operating Systems

Configuration management

Application deployment and management

Backup service and scope

Cluster software

Resource management

Queue management

Infrastructure discussion points

Because the storage needs are enormous

Hardware management

Software management

File systems

Protocols

Auto-mounter use

Networking

Policy enforcement

Archive versus backup services

Corporate Headquarters
Maxfeldstrasse 5
90409 Nuremberg
Germany

+49 911 740 53 0 (Worldwide)
www.suse.com

Join us on:
www.opensuse.org

Unpublished Work of SUSE LLC. All Rights Reserved.

This work is an unpublished work and contains confidential, proprietary and trade secret information of SUSE LLC. Access to this work is restricted to SUSE employees who have a need to know to perform tasks within the scope of their assignments. No part of this work may be practiced, performed, copied, distributed, revised, modified, translated, abridged, condensed, expanded, collected, or adapted without the prior written consent of SUSE.
Any use or exploitation of this work without authorization could subject the perpetrator to criminal and civil liability.

General Disclaimer

This document is not to be construed as a promise by any participating company to develop, deliver, or market a product. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. SUSE makes no representations or warranties with respect to the contents of this document, and specifically disclaims any express or implied warranties of merchantability or fitness for any particular purpose. The development, release, and timing of features or functionality described for SUSE products remains at the sole discretion of SUSE. Further, SUSE reserves the right to revise this document and to make changes to its content, at any time, without obligation to notify any person or entity of such revisions or changes. All SUSE marks referenced in this presentation are trademarks or registered trademarks of Novell, Inc. in the United States and other countries. All third-party trademarks are the property of their respective owners.