EuPathDB catalog of hardware and required software.

Server and Network Infrastructure
The server infrastructure is hosted in institutionally-owned datacenters that provide redundant electrical power, fire suppression and ambient air cooling. The hosting institutions also provide and maintain the network infrastructure that connects EuPathDB hardware to the public wide-area network. Similarly, the compute clusters required for large scale data analysis is property of the hosting institutions.

The hardware architecture owned by and transferable from EuPathDB consists of the following:

Oracle database and administrative Servers
    5 X Dell PowerEdge R610

Production webservers
    1 X IBM x3550
    1 X Dell PowerEdge R610

Developement webservers
    1 X Dell PowerEdge R610
    1 X IBM x3550

Software integration server
    1 X Dell PowerEdge R610

Data processing servers
    1 X IBM x3550

Backup server
    1 X Dell PowerVault DL2000

Virtual machine host
    1 X Dell PowerEdge R610

SAN Storage
    1 X Arch SS10A Storage System
    5 X EqualLogic SAN arrays

Infrastructure administration
    1 X Dell PowerEdge R310

Network switches
    3 X Brocade 48 port switches

All servers run CentOS 5.8. The databases are hosted in Oracle 11.2.0.3. Webservers require Apache HTTP server and Tomcat Application Server, both freely available, open-source applications. Backups at the University of Georgia are managed with Commvault, Amanda is used at the University of Pennsylvania. The servers and SAN storage are interconnected through a private VLAN on the Brocade switches. The switches are connected to the institutional public network on a separate VLAN.

Third-party Data Analysis Software

The following is a non-exhaustive list of third-party software used for data analysis. Many have licensing restrictions that preclude EuPathDB from transferring directly. Most have additional software or library dependencies for installation and function. These dependencies may not be included below but will be listed in each software's respective documentation.

Ant
Bioconductor for R
blat
bowtie
bowtie2
bwa
clustalw
cndsrc
consed
exportpred
GATK
HMMER
java
kohgpi
mavid
MCL
mdust
MUMmer
ncbi-blast
phrap
phred
phylip
primer3
psipred
RepeatMasker
RMAExpress
samtools
SignalP
smartmontools
SRA Toolkit
stampy

TMHMM
tmpred
TRF
tRNAscan-SE
varscan
weblogo
wu-blast