

The Galaxy Project Selects BioTeam[™] as the Official Provider of Appliances to Accelerate Biomedical Research

- Galaxy Project Goals
- Current Limitations
- Strategic Alliance with BioTeam
- Why BioTeam
- Benefits of the Appliance



Anushka Brownley Product Manager, BioTeam Galaxy Community Conference July 1st 2013







INTRODUCING SlipStream Appliance: Galaxy Edition Galaxy made easy.

Why BioTeam

Why an Appliance

Why SlipStream Galaxy



WHO WE ARE



Over a decade of Life Sciences IT consulting

- Staffed by scientists forced to learn IT to get research done
- Served over 400 organizations
 - Academic, Non-profit
 - Government, Military
 - Pharm, AgBio, Biotech
 - Cloud & Datacenter Providers





WHO WE ARE



Active contributors to open-source projects







BIOTEAM

Encapsulate a decade of IT best-practices expertise to eliminate redundant effort spent building IT systems and installing software

GALAXY PROJECT

Reduce the barrier to entry into data analysis by improving accessibility of the Galaxy platform





- Galaxy Main can no longer meet the needs of the community for large volumes of data analysis
- A local Galaxy instance presents obstacles for many groups
- A cloud instance is difficult to customize to an organizations needs



LOWERING THE BARRIERS







Fully operational production instance of Galaxy on a powerful dedicated desktop server





HARDWARE SPECIFICATIONS					
CPU	2x Intel® Xeon® Processor E5-2690, 8-core (16 cores total)				
Memory	12X 32 GB RDIMM (384 GB)				
Storage	7x 3TB SAS 6 Gbps HDD (16 TB usable) 1x 100GB SSD				
Network	Dual Gigabit network adaptor				
Power	Dual redundant power supplies				





FEATURES						
Optimized Galaxy	Production configuration, optimized data transfer					
Analysis Tools	All open-source tools available in Main					
Automated Updates	All software can be updated automatically					
Preinstalled Datasets	Model organisms (additional upon request)					
Grid Compute	Grid Engine -based job management					
Data Back-up	Copy contents of Appliance locally or to AWS					
Hardware Maintenance	Warranty includes maintenance					
Open Platform	Can be used as your own powerful server					
Price: \$19,995 (USD)						





BENCHMARKS

Tools	Task	Data	Run-time
Bowtie 2	Mapping whole human genome	204 million paired-end 100bp Illumina reads	2 hours 44 min
SAMTools	SAM-BAM conversion	127GB SAM File (41GB resulting BAM File)	2 hours 7 minutes
TopHat 2	RNA-Seq mapping	24 million 100bp Illumina reads	1 hour 24 minutes
Cufflinks 2	Differential Expression Analysis	4.3 GB SAM File	o hours 11 minutes



IS SLIPSTREAM GALAXY RIGHT FOR Galaxy ME?

	NO WAIT TIMES	NO STORAGE QUOTAS	NO JOB SUBMISSION LIMITS	NO DATA TRANSFER BOTTLENECKS	NO IT EXPERIENCE REQUIRED	NO REQUIRED INFRASTRUCTURE
GALAXY MAIN	×	×	×	×		
LOCAL GALAXY	?	?	?	Ø	×	8
CLOUD GALAXY	0			•	×	0
SLIPSTREAM GALAXY	Ø	V	V	 Image: A start of the start of	V	 Image: A start of the start of



EARLY ACCESS PROGRAM (Limited Availability)

- Seamless Adoption
- Dedicated Support
- Workflow Generation
- Optimized Utility

Early Development Partner Feedback

"A device that centralizes functions with respect to data archives, storage, and analysis is a tremendous aid." – Ed DeLong, MIT



- 2-year partnership to be the exclusive appliance provider for the Galaxy Project
 - Donations back to the Galaxy Project
- Intel Corporation and BioTeam Collaboration
 - BioTeam designing best-practices workflows
 - Intel optimizing tools and workflows
- Commercial-grade Support and Services
- General Release: late 2013





SlipStream Appliance: Galaxy Edition A high performance solution for data analysis

Why **BioTeam**

IT expertise and commitment to open-source

Why an Appliance

Get results faster with a dedicated resource

Why SlipStream Galaxy

Reduce IT burden with a pre-configured fully supported Galaxy server





Become an Early Access Partner Today!!

Email: <u>slipstream-galaxy@bioteam.net</u> Web: <u>www.bioteam.net/slipstream/galaxy-edition</u>