

USQ currently operates one cluster:

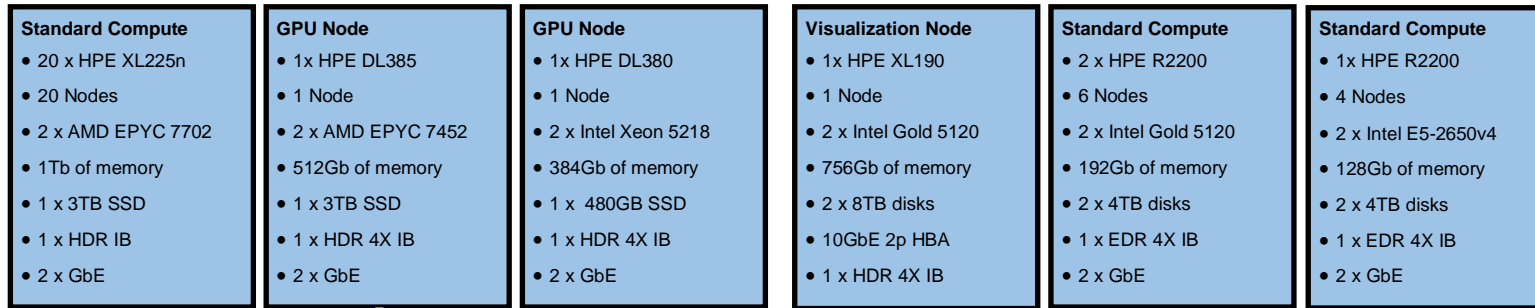
- Fawkes Cluster (a HPE system, commissioned Mar 2021)

The Fawkes Cluster has:

Summary			
<b>Research Cluster</b>			
Compute nodes	20	1Tb memory each	2x64 cores
GPU node	1 (3xV100S)	512Gb memory each	2x32 cores
GPU node	1 (2xV100S)	384Gb memory	2x20 cores
Visualization node	1	1Tb memory	2x64 cores
Total computational cores			2792
Processor(s)	AMD EPYC 7702 AMD EPYC 7452 Intel Xeon 5218	2.0GHz 3.3GHz 2.1GHz	
<b>Teaching Sub-Cluster</b>			
Compute nodes	4	128Gb memory each	2x12 cores
Compute nodes	6	192Gb memory each	2x14 cores
Visualization node	1	768Gb memory	2x14 cores
Total computational cores			292
Processor(s)	Intel E5-2650v4 Intel Xeon 5120	2.2GHz 2.2GHz	
<b>Overall Details</b>			
Total computational cores	3084		
Performance	100.1Tflops		
Total memory	24.3Tb		
Raw Storage	384TB disk storage		
Operating system	RHEL	8.2	
Mellanox	HDR/EDR Infiniband	200/100Gb	

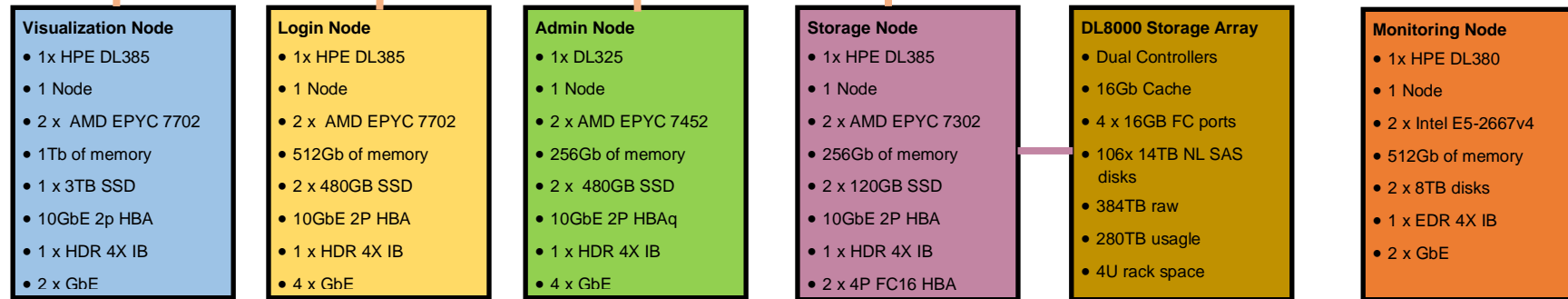
# Fawkes Compute Nodes

## Albus Compute Nodes



<b>Summary</b>	
<b>Compute Nodes:</b>	
Nodes	34
Sockets	68
Cores	3084
GPUs	5 (V100S)
Memory	24.3TB
Disk	80.5TB raw
Performance	100.1Tflops
<b>Shared Storage</b>	
Disk Capacity	384TB raw 280TB usable
<b>Other</b>	
Rack U Space	45U
Max. power	25kW

HDR InfinBand (interconnect—one IB port per node—Mellanox 1xQM8700 switch & 1x EDR QSFP28 with 24 EDR ports)



Visualization Node (Habeus)

Login Node

Admin Node

NFS Storage Server and RAID Storage Array

Monitoring Node