

# Systems

ISL maintains and provides access to a number of experimental systems:

[Main -> Systems](#)

System Name	Description	Storage	Networking	Hostname	Status	Service dates	Access
<b>Clusters</b>							
<a href="#">HAL</a>	Cluster of 16 IBM POWER9 nodes with 4 NVIDIA V100 GPUs per node	244 TB usable, NVME SSD-based storage by DDN  Peak system bandwidth ~100GB/s	10GbE external  Dedicated 10GbE for data transfer  dual-channel EDR IB internal	hal	in service	2019	<a href="#">open</a>
<a href="#">Nano</a>	Cluster of 8 SuperMicro servers with Intel Haswell /Broadwell CPUs and NVIDIA Tesla P100/V100 GPUs	Local 256GB SSD per node  NFS-mounted 30TB /home (2x 6-drive RAID z2 with 4TB drives)  GlusterFS w/ 2-node fault tolerance 45TB usable	10GbE external  1GbE + IB QDR internal	nano	in service	2016	<a href="#">open</a>
<a href="#">Kingfisher</a>	Cluster of 5 Dell R730 servers with Intel Broadwell CPUs and NVIDIA Tesla K80 GPUs (Student Cluster Competition 2016-present) (Jump)	Local 400GB SSD per node  5x 800GB SSD in RAID 5	10GbE + IB EDR internal	kingfisher	in service	2016	<a href="#">restricted</a>
							
<a href="#">KNC</a>	Xeon Phi 5-node co-processor cluster			knc	not in service		
<a href="#">KNL</a>	Xeon Phi 4-node processor cluster (access via KNC)			knl*	not in service		
<b>Clouds</b>							
<a href="#">VLAD OpenStack cluster</a>	OpenStack Cloud deployment				in service		
<b>Servers</b>							
<a href="#">DGX A100</a>	NVIDIA DGX A100	14TB RAID0	1GbE	hal-dgx	in service	2021-	<a href="#">open</a>
<a href="#">Ac33</a>	TYAN server with Intel Westmere-EP CPUs and NVIDIA Tesla C2050 GPUs	Local 300GB + 1TB HDD		ac33	not in service	2014	<a href="#">open</a>
<a href="#">Hybrid</a>	SuperMicro server with Intel Haswell-EP CPUs and NVIDIA Tesla P100/V100 GPUs	Local 75GB SSD + one (3x 4TB) RAID 0 arrays	10GbE	hybrid	in service	2016	<a href="#">restricted</a>

## Contact us

Request access to ISL resources: see individual systems

Contact ISL staff: [Email Address](#)

Visit: [NCSA](#), room 3050E

Vlad-hm	High memory server with 3TB of ECC RAM	Local 3TB SSD + two (6x 1TB) RAID 0 arrays  CephFS 257TB (reported)	10GbE	vlad-hm	in service		open
	AMD ARM server				not in service		
Power9 AC922 server	IBM POWER9 4x NVIDIA Tesla V100 16GB	Local 2x 3.84TB SSD  Local 1.4 TB NVME	1GbE	p9	in service		restricted to XPACC project
NVIDIA ARM HPC DevKit	1x Ampere Altra Q80-30  2x NVIDIA A100 GPU						restricted to NCSA users only
<b>FPGA dev</b>							
	Altera DE5 FPGA board						
pynq	XILINX PYNQ-Z1			pynq	offline	05/2017	restricted
XilinxDevKit	Xilinx Kintex UltraScale FPGA KCU1500 Acceleration Development Kit			iridium	in service		restricted
CAPI2.0 platform	Nallatech 250S+in Power 9 server (hal000)  4x NVIDIA Tesla V100 16GB	Local 2x 3.84TB SSD	10GbE	hal000	in service	2018	restricted to NSF MRI project
OpenCAPI platform (IBM P9 IC922)							
Xilinx u250	x86 server with Alveo U250 Data Center Accelerator Card and Vitis development environment			hal-fpga-x86	in service	2020	restricted to NSF MRI project
<b>Misc</b>							
	Ceph storage				offline		
	Raspberry Pi boards				offline		
Jetson	NVIDIA Jetson TK1 cluster				offline		restricted
Jetson TX2	NVIDIA Jetson TX2 cluster	1TB NFS-mounted /home	1GbE internal & external	jetson-tx2-*	offline		open