

Idaho National Laboratory opens new computing, cybersecurity buildings

By: [Sharon Fisher](#) October 16, 2019 [0](#)



The lobby of the Collaborative Computing Center had its ribbon cutting on Oct. 14. Photo by Sharon Fisher

IDAHO FALLS – Idaho National Laboratory (INL) formally opened two new buildings that are intended to give students and researchers across the state access to supercomputing and cybersecurity resources.

Officials celebrated the Collaborative Computing Center (C3) and Cybercore Integration Center (CIC) at a ribbon cutting held on Oct. 14.

Idaho has a better idea of the resource it has with INL and is making better use of it, said David Hill, former deputy director, who is now on the Idaho State Board of Education.

Attendees included a large contingent of Idaho legislators, who were in the neighborhood as part of the 2019 Idaho Legislative Tour, sponsored by the Greater Idaho Falls Chamber of Commerce. About 50 legislators – more than a third – are reportedly participating in the tour.

The Legislature approved funding for the buildings, which don't use any state funds but require appropriation authority, on March 28, 2017, said Mark Peters, INL director.

### **Collaboration, not competition**

Peters emphasized the collaborative nature of the project, which will provide educational facilities for all of the Idaho state schools to train their students in cybersecurity, computer science and computational science. The biggest impact is not the buildings themselves, but the partnership with universities that will keep students from having to leave the state to study and get jobs in these fields, he said.

The presidents of both the University of Idaho and Idaho State University concurred, with Idaho State's Kevin Satterlee saying that ISU wasn't competing with other Idaho universities, but collaborating. Off-site computer users, such as students and faculty at Idaho's universities and colleges, have remote access to the high-performance computing systems in the C3 through the Idaho Regional Optical Network (IRON), INL said in a press release.

### **Home for new supercomputer**



Eric Whiting. Photo by Sharon Fisher

By December, C3 is scheduled to receive its new supercomputer, named Sawtooth, to add to its existing supercomputers, Falcon and Lemhi. Sawtooth, which will cost around \$19 million and come from Hewlett Packard Enterprise, will be installed in the new building, a process expected to take two to three months, said Eric Whiting, Division Director, Advanced Scientific Computing. Following that, both Falcon, from the former Silicon Graphics, and Lemhi, from Dell Technologies, will be moved, which will take about two weeks each, he said.

For an idea of Sawtooth's power, it can multiply 1,000 15-digit numbers a trillion times per second, Whiting said. The computer will have 121 terabytes of memory.

A new building was required to house Sawtooth because the existing computing building doesn't have enough power, Whiting said. It uses 1.5 megawatts (MW) of power on its own, while the existing building has only 500,000 MW. C3 has 4 MW, with the capacity to be expanded to 8.5 MW – in time for the INL's next supercomputer, which is expected around 2023, he said.

### **Funding and construction**

Like the nearby Center for Advanced Energy Studies (CAES), which opened in 2009, CIC and C3 are owned by the state and leased to INL. The education board will own the buildings and sublease them to Battelle Energy Alliance, the INL contractor, for \$6.12 million a year. The 15-year lease is designed to make the annual payments on the expected \$75 million to \$80 million bond for the \$85 million project.

The project came in ahead of schedule and under budget, said V.L. "Bud" Tracey, chairman of the Idaho State Building Authority, though he didn't provide specifics.

Both buildings are two stories, with 66,000 square feet at the C3 and 79,000 square feet at Cybercore. About 85% of the Cybercore building is high security, with some offices available for workers who haven't yet received security clearances.

ESI Construction of Meridian and J.E. Dunn Construction of Kansas City were the construction manager/general contractor. Flad Architects of Madison, Wisconsin, was the architect. The buildings broke ground on April 11, 2018 after the Idaho State Board of Education [approved the \\$1 million land purchase](#) and executed the Battelle lease on March 8, 2018.