



Center for Communications and Computing

The Center for Communications and Computing (CCC) is one of three federally funded research and development centers (FFRDCs) operated by the Institute for Defense Analyses (IDA), a nonprofit corporation. The FFRDC performs fundamental research in support of the National Security Agency's missions in cybersecurity and signals intelligence, encompassing computer network operations and cryptology. CCC consists of three distinct research centers:

- Center for Communications Research in La Jolla, California.
- Center for Communications Research in Princeton, New Jersey.
- Center for Computing Sciences in Bowie, Maryland.

The three centers frequently collaborate on research projects.

Research portfolio

CCC's overall research portfolio evolves as communications and computing technologies advance. The following areas of particular emphasis hint at the breadth of the advanced mathematical and technical approaches we employ:

- Sophisticated encryption methods.
- High-performance computing technologies.



- Advanced algorithms and their applications.
- Algorithmic and mathematical foundations of cryptology.
- Computer network technologies supporting communications security and network operations.
- Information processing technologies supporting cyber security.
- Analytical applications of large data sets.

Most branches of computer science, engineering, mathematics and physical science are useful in these efforts.

Collaborative, academic environment

CCC fosters a collaborative, academic-style environment that combines unique areas of expertise. Most researchers have doctorates in computer science, electrical engineering, mathematics, natural science, statistics or a related field. To ensure our capabilities match real-world needs, we recruit exceptional new talent and maintain close ties with academic institutions. Our expertise emphasizes breadth and depth; while some researchers focus primarily on coding, others do no coding at all.



CCC's success in providing the National Security Agency with trailblazing research in mathematics and computer science rests on four key pillars:

- Exceptionally talented and versatile researchers.
- State-of-the-art computational capabilities.
- Long-standing working relationships with the National Security Agency.
- Ongoing engagement with the broader research community.

Together, these pillars ensure our work takes full advantage of advances in the academic and commercial worlds. Consequently, we continually evolve the innovative approaches to the work we do.

