Information Technology

Maryland's information technology industry thrives on a concentrated and collaborative environment spurring innovative communities in cybersecurity, information technology, interactive technologies and communications. A strong network of research and education resources and a highly educated and talented workforce stimulate myriad opportunities for new and expanding businesses. Maryland's 12,060 information technology businesses are annually awarded $12.1 billion in federal contracts and generate $45.01 billion in economic activity, making it one of the nation's leaders and a major economic engine for the state.

Major Information Technology Employers in Maryland

Employer	Employment	Product / Service
Northrop Grumman	10,365	Electronic systems
Verizon	6,500	Telecommunications
Johns Hopkins University Applied Physics Laboratory	5,545	R&D, systems engineering
Comcast	4,000	Telecommunications
Lockheed Martin	3,255	Aerospace and electronics
Leidos	2,595	National security, health and engineering services
Booz Allen Hamilton	2,100	IT services, systems engineering
Westat	2,000	Contract research and surveys
CSC	1,230	IT services, systems engineering
KeyW	700	Information technology services
BAE Systems	580	Defense electronics, aerospace
Cisco	350	Network security
Tenable Network Security	350	Network security

Note: Numbers are rounded.
Source: Maryland Department of Commerce, July 2017.

Selected Rankings

- Maryland ranks third among the states in the percentage of professional and technical workers (27.8%) in the workforce, third in the percentage of the population age 25 and above with a bachelor's degree or higher (40.8%) and second in the percentage with a graduate or professional degree (18.9%).
- Maryland ranks third in the Milken Institute's State Technology and Science Index for 2018, including first in the technology and science workforce category, and second in the human capital investment, and research and development inputs categories.
- In the 2019 Business Facilities ranking report, Maryland ranks fourth for cybersecurity growth potential, which is based on the state's cyber ecosystem, including higher education resources, research labs and innovation centers, employment, and partnerships with national security programs.
- According to the Cyberstates 2019 report, Maryland ranks third among the states in median tech occupation wages ($95,921), fourth in the ratio of female workers in tech occupations (23.4%), and eighth for tech GSP as a percentage of total GSP (11.7%).

Industry Snapshot – Information Technology in Maryland

- Employment (2018) – 116,790 private sector jobs (120,770 including public sector)
  Leading subsectors:
  - Computer systems design and related services – 76,660 jobs
  - Telecommunications – 12,310 jobs
  - Computer and electronic product manufacturing – 6,190 jobs
- Business establishments (2018) – 12,060
- Total wages (2018) – $13.46 billion
- Average salary (2018) – $111,490
- Gross state product (2017) – $45.01 billion
- Federal procurement (FY2018) – $12.10 billion

Sources: Maryland Department of Labor; U.S. Bureau of Economic Analysis; U.S. Census Bureau.

Employment by Occupation

Maryland Employment – May 2018

Selected Occupations	Employment	Location Quotient*	
		Index	Rank
Computer and information research scientists	2,900	5.20	1
Computer and information systems managers	10,590	1.46	4
Computer network architects	5,340	1.88	3
Computer network support specialists	8,130	2.42	1
Computer programmers	4,790	1.12	15
Computer systems analysts	18,340	1.68	2
Electrical and electronic engineering technicians	3,380	1.44	8
Electrical engineers	4,550	1.38	8
Electronics engineers, except computer	4,760	1.68	6
Information security analysts	4,990	2.49	2
Network and computer systems administrators	16,220	2.39	1
Software developers, applications	12,780	0.76	25
Software developers, systems software	15,430	2.05	3

* Location Quotient indicates concentration of the occupation in Maryland, with national average equal to 1.0.
  Rank indicates Maryland's rank among the 50 states.
Source: U.S. Bureau of Labor Statistics, Occupational Employment Statistics.

Assets & Resources

- **Aberdeen Proving Ground** – Army Research, Development and Testing Command; Army C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance).
- **Fort George G. Meade** – Home to the National Security Agency, Defense Information Systems Agency, and the U.S. Cyber Command.
- **Johns Hopkins University** – Ranks first in the nation in R&D expenditures ($2.66 billion in FY2018) and leads research in networking, wireless, systems evaluation, and medical privacy.
- **Johns Hopkins University Applied Physics Laboratory** – Research center with expertise in science and technology, infocentric operations, and national security analysis.
- **National Institute of Standards and Technology** – Supports U.S. innovation through research, measurements, standards, business services, and other programs.

- **University of Maryland Baltimore County** – One of the top ten in the nation among most innovative schools (U.S. News) and home to the Center for Information Security and Assurance.
- **University of Maryland College Park** –A top ranked university in computer science and information systems, and in preparing cybersecurity professionals.
- **Fraunhofer Center for Experimental Software Engineering (CESE)** – Affiliated with the University of Maryland College Park, CESE conducts applied research and technology transfer.
- **Baltimore Cyber Range** – Advanced cyber security training facility utilizing a hyper-realistic virtual network environment, advanced network tools and real-world attack scenarios.
- **Maryland Innovation & Security Institute (MISI)** – Non-profit dedicated to advancing cyber security innovation and collaboration.

New & Expanding Businesses

- **Helm Services** (Baltimore City) – Stripe, Inc., which builds economic infrastructure for the internet, will locate its new subsidiary in 44,000 square feet, with plans for 200 new jobs.
- **DreamPort** (Howard County) – DreamPort, which provides room for work on cybersecurity projects in support of U.S. Cyber Command, plans to double its space to 34,600 square feet.
- **Cybrary** (Prince George's County) – Online cybersecurity training company will expand and move its headquarters to College Park, with plans to create more than 200 new jobs.
- **ID Agent** (Prince George's County) – Provider of Dark Web monitoring and identity theft protection solutions recently relocated its headquarters and 10 jobs from Washington DC, and plans to double its workforce.
- **Maryland Innovation & Security Institute (MISI)** (Howard County) – With a five-year U.S. Cyber Command Partnership Intermediary Agreement to innovate new technologies, MISI has leased 18,000 square feet for a cyber innovation, collaboration and prototyping facility.
- **Tenable Network Security** (Howard County) – Fast-growing cybersecurity company based in Columbia is relocating its headquarters and adding hundreds of jobs over the next few years.
- **SparkPost** (Howard County) – Cloud email API service has opened a new 30,000-square-foot headquarters to accommodate its rapid expansion, and is expecting to expand by 88 jobs.
- **Vision Technologies** (Anne Arundel County) – National and global systems integrator is relocating its headquarters in the county and adding 100 new full-time jobs to its local workforce over the next five years.
- **Datawatch Systems** (Montgomery County) – Top commercial office security provider is relocating its headquarters in Montgomery County and adding 50 new full-time jobs.
- **Electrosoft** (Prince George's County) – Provider of diversified technology-based solutions to the federal government announced the opening of a new branch office in Greenbelt.

Programs & Incentives

- **Maryland Venture Fund** – State funded seed and early-stage equity fund.
- **Maryland Industrial Partnerships** – Accelerates commercialization of technology by jointly funding collaborative R&D projects between companies and University System of Maryland faculty.
- **Maryland Technology Development Corporation** – Facilitates technology transfer from academic and federal labs into the private sector with seed funding, technical assistance and entrepreneurial support programs.
- **Research & Development Tax Credit** – Credit for R&D expenses for certified businesses.
- **Cybersecurity Investment Incentive Tax Credit** – Refundable tax credit for investment in a qualified cybersecurity company.

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