INFINERA CORP
Form 10-K
March 01, 2011
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 25, 2010

OR

¨ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission file number: 001-33486

Infinera Corporation

(Exact name of registrant as specified in its charter)

Delaware	77-0560433
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

169 Java Drive

Sunnyvale, CA 94089

(Address of principal executive offices, including zip code)

(408) 572-5200

(Registrant s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $0.001 Par Value	The NASDAQ Global Select Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes ¨ No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ¨ No ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definition of accelerated filer, large accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ¨	Accelerated filer x	Non-accelerated filer ¨	Smaller reporting company ¨
		(Do not check if a smaller reporting company)	

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No x

The aggregate market value of the registrant s common stock, $0.001 par value per share, held by non-affiliates of the registrant on June 25, 2010, the last business day of the registrant s most recently completed second fiscal quarter, was approximately $537,651,540 (based on the closing sales price of the registrant s common stock on that date). Shares of the registrant s common stock held by each officer and director and each person who owns more than 5% or more of the outstanding common stock of the registrant have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a

conclusive determination for other purposes. As of February 23, 2011, 103,868,311 shares of the registrant s common stock, $0.001 par value per share, were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

(1) Portions of the registrant s Proxy Statement for its 2011 Annual Meeting of Stockholders to be filed pursuant to Regulation 14A are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated.

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INFINERA CORPORATION

ANNUAL REPORT ON FORM 10-K

For the Fiscal Year Ended December 25, 2010

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Part I

ITEM 1. BUSINESS

Overview

Infinera Corporation (we or Infinera) first introduced its Digital Optical Network architecture to the market in 2005. This architecture is based on our unique photonic integrated circuits (PICs) and enables high-capacity low-cost bandwidth in the cloud and distributed switching throughout the network. Rapidly growing and unpredictable bandwidth demand increases the need for the ability to deliver high-capacity low-cost bandwidth anywhere in the network. We believe that traditional point-to-point network architectures do not provide this flexibility. It takes large amounts of low-cost bandwidth, pervasive Optical Transport Network (OTN) switching and the intelligence of bandwidth management to manage these larger networks and deliver high-capacity services quickly and cost-effectively. Infinera believes this can only be achieved with PICs and that only through photonic integration can network operators scale their network bandwidth without significant increases in space, power or operational workload. Over 80 customers, including national and multi-national telecom carriers, cable television operators and internet content providers use our network architecture in their fiber optic backbone networks.

Infinera created what we believe to be the world s only commercially-deployed, large-scale PIC. Our first generation PICs transmit and receive 100 Gigabits per second (Gbps) of optical capacity and incorporate the functionality of over 60 discrete optical functions into a pair of indium phosphide chips approximately the size of a child s fingernail. Our next-generation PICs, which are currently in development, will transmit and receive 500Gbps and will incorporate over 600 discrete functions into a pair of chips. Our PICs enable our Digital Optical Network architecture and allow us to offer customers the unique advantages of low-cost bandwidth, advanced digital bandwidth management and an intelligent software operating system.

Since 2005, our strategy has been to extend the benefits of our Digital Optical Network throughout the optical networking market. We have made significant enhancements to our Digital Transport Node System (DTN System) during this time by increasing reach and fiber capacity for the long-haul market, adding the Infinera MTC, a 19-inch chassis option tailored for the metro core market, and adding a submarine version of the DTN System for the Submarine Line Terminating Equipment (SLTE) market. In addition, we launched our ATN metro access platform, extending Infinera s digital bandwidth management and intelligent network benefits to the network edge. Both the DTN and ATN Systems are designed to operate as a tightly-integrated network with a single management system providing an end-to-end Digital Optical Network experience. We currently have 22 ATN customers enjoying the benefits of an ATN network and 19 of these customers have deployed an integrated ATN-DTN solution.

Traffic patterns in the optical networking market continue to grow to accommodate increased bandwidth demand from video, mobility and cloud computing. The optical networking market is seeing growing demand for increased fiber capacity with networks migrating from the current 10Gbps wavelength solutions to 40Gbps solutions in the short-term and to 100Gbps solutions in the longer-term. Our current DTN System delivers 10Gbps wavelengths of capacity per fiber on a cost-effective dollar per-bit basis. Infinera plans to introduce a 100Gbps PIC-based platform in 2012. This system will incorporate our 500Gbps PICs and our 5 Terabit OTN switch and will combine competitive fiber capacity with the unique features of our Digital Optical Network. We plan to introduce a 40Gbps line module for the DTN System in mid-2011 to address customer needs for higher fiber capacity in advance of the release of our 100Gbps platform. This non-PIC based 40Gbps solution will increase the fiber capacity of the DTN System from 1.6 Terabits per second (Tb/s) to 6.4 Tb/s and we believe that it will represent the highest fiber capacity 40Gbps system in the market at that time.

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Infinera s 100Gbps PIC-based platform is architected to increase availability of low-cost bandwidth with superior bandwidth management and service delivery capabilities. We believe that it will be more cost-effective for customers with large bandwidth demands to move to our 100Gbps systems as soon as these become broadly available as these systems will offer the most favorable network economics.

Infinera, Infinera DTN, ATN, IQ, I-PIC, Infinera Digital Optical Network, Bandwidth Virtualization and other trademarks or service n
Infinera Corporation appearing in this report are the property of Infinera Corporation. This report contains additional trade names, trademarks and service marks of other companies. We do not intend our use or display of other companies trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies.

Infinera was founded in December 2000, originally operated under the name Zepton Networks, and is headquartered in Sunnyvale, California. We are incorporated in the State of Delaware. Our principal executive offices are located at 169 Java Drive, Sunnyvale, CA 94089. Our telephone number is (408) 572-5200.

Industry Background

Optical networking equipment carries digital information using light waves over fiber optic networks. The advent of wavelength division multiplexing (WDM) systems has enabled the transmission of larger amounts of data by using multiple wavelengths over a single optical fiber. Service providers often use wavelength division multiplexing systems to carry communications traffic between cities, referred to as long-haul networks, and within large metropolitan areas, referred to as metro networks. Fiber optic networks are generally capable of carrying most types of communications traffic, from conventional long-distance telephone calls to e-mails and web sessions to high-definition video streams. As traffic grows, service providers add capacity to existing networks or purchase and deploy additional systems to keep pace with bandwidth demands and service expansion. Fiber optic networks typically are expensive and complex, and service providers have focused on generating new revenue while continuing to reduce operating and capital costs.

Increased Demand for Network Capacity

We believe that a number of trends in the communications industry are driving growth in demand for network capacity and ultimately will increase demand for optical networking systems, including our DTN System and ATN System. These trends include growth in bandwidth-intensive applications like video and proliferation of the wireless Internet due to smartphones and computers with wireless access, as well as continued penetration of broadband Internet connectivity.

We believe that service providers and other network operators are constantly seeking solutions that allow them to increase their profit margins or expand their service offerings, specifically demanding:

- lower costs for deploying, provisioning, and managing bandwidth;
- more efficient use of bandwidth, fiber capacity, electrical power, and physical space;
- faster operations to reduce cycle times of common operational tasks;
- improved integration between the Internet Protocol (IP) equipment such as routers and optical networking equipment; and
- higher reliability to avoid costs of downtime.

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We believe that Infinera s Digital Optical Network architecture, which includes unique features enabled by our PICs, including low-cost bandwidth, distributed switching, digital bandwidth management and intelligent software, is uniquely enabled to deliver improvements in these areas compared to conventional WDM systems offered by our competitors.

We believe that our Digital Optical Network architecture and our DTN System and ATN System enable the improvement of the economics, operating simplicity, flexibility, reliability and scalability of our customers optical networks.

The Infinera Strategy

Our goal is to be a preeminent provider of optical networking systems to communications service providers. Key aspects of our strategy are:

Increase our customer footprint. During 2010, we continued to diversify our customer base. Internet content providers have become an increasingly important customer set for us, as their bandwidth demands grow with the growth of new high-bandwidth applications, and they increasingly opt to build and operate their own optical networks. Cable providers also continue to increase the size and capacity of their optical networks. We now count all of the top five North American Multiple System Operators (MSOs) as customers. In 2010, we began deploying equipment in the regulated portion of Qwest s network. We intend to increase penetration of our installed base of customers while also targeting new U.S. and international communications service providers, including U.S. regional Bell operating companies, international postal, telephone and telegraph companies, and other operators of fiber optic networks around the world. In 2010, our presence outside of North America grew with the addition of new customers in Europe and Asia, as well as deployments in the Other Americas region. We also had continued success in the submarine market, as subsea network operators deployed Infinera systems over existing subsea networks to increase capacity and utilize the efficiencies of our Digital Optical Network.

Penetrate adjacent markets. We believe that our Digital Optical Network can benefit submarine network operators and operators with networks that extend to the metro edge. We intend to increase our addressable markets by continually adding functionality to our products and by developing the service and support infrastructure needed to address these markets.

Maintain and extend our technology lead. We intend to continue to incorporate the functionality of additional discrete functions into our PICs in order to continue to increase the availability of higher-capacity low-cost bandwidth. In addition, we will pursue the expansion of our digital switching and bandwidth management capabilities in order to enhance the performance, scalability and economic advantages of our products. We intend to introduce systems with new, higher-capacity features and greater functionality in 2011 and beyond.

Continue investment in PIC manufacturing activities. We believe that our vertical integration and manufacturing capabilities serve as a competitive advantage and intend to continue to invest in the manufacturing capabilities needed to produce new generations of our PICs. We are currently expanding our PIC fabrication (PIC FAB) plant in preparation for volume shipments of our new 500Gbps PICs in 2012.

Products

Infinera DTN System

Our DTN System utilizes our PIC technology to enable digital processing and management of data with the capability to generate wavelength division multiplexing wavelengths and to add, drop, switch, manage, protect and restore network traffic digitally. The DTN System can automate the connection of circuits and provisioning of new services without costly and cumbersome manual intervention.

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Our DTN System is modular in design to provide our customers with the ability to add capacity in a cost-efficient manner. The initial deployment of our DTN System at a customer site involves the installation of a line system (including common equipment, such as a chassis, management controller and related equipment). Customers can add capacity to the DTN System by purchasing our Digital Line Modules, or DLMs, Tributary Adapter Modules, or TAMs and Tributary Optical Modules, or TOMs. We believe that the density and the modular architecture of the DTN System enable significant flexibility and scalability for communications service providers. Our current DTN System delivers 10Gbps wavelengths of capacity per fiber on a cost-effective basis. In order to address customer needs for higher fiber capacities, we plan to introduce a non-PIC based 40Gbps solution that will increase the fiber capacity of the DTN System from 1.6 Tb/s to 6.4 Tb/s. We expect to introduce this system in mid-2011 and believe that it will represent the highest fiber capacity 40Gbps system in the market at that time.

Our DTN System is carrier-class, which means that it complies with applicable Telcordia and equivalent major international standards for central office-based network elements. Our DTN System supports a broad range of optical service interfaces including Ethernet (Gigabit Ethernet (GbE) and 10GbE) and separate synchronous optical network/synchronous digital hierarchy.

Infinera DTN for Submarine Network Applications

For submarine transport applications, the DTN System can be used as an SLTE node at submarine cable head-end sites, enabling undersea service providers to upgrade existing submarine cables to 25GHz channel spacing, thereby doubling the total optical capacity of many traditional submarine systems to a maximum of up to 160 wavelengths and distances up to 8,000 km. The introduction of our 40Gbps line module for the DTN System will increase this capacity from 1.6 Tb/s to 6.4 Tb/s. The DTN System also provides dispersion compensation that is significantly simpler and cheaper than the per-channel dispersion management of many existing SLTE systems. Combined with the benefits of our DTN System s digital operations and software automation, we believe that Infinera s SLTE solution using the DTN System significantly reduces engineering complexity for submarine cable upgrade deployments and channel adds, allowing submarine network operators to deploy additional capacity on existing cable systems faster, and often at lower cost compared to existing SLTE systems.

Infinera Line System

Infinera DTN Systems are built upon and connected to one another using an optical line system. The Infinera Line System (ILS) provides optical amplification, provides the management communications channel between network nodes and allows the customer to deploy optical capacity to carry customer traffic on its network. ILS currently combines up to 1.6 Tb/s of optical capacity onto a single fiber. Infinera s bandwidth management allows our customers to manage and utilize this pool of available capacity to satisfy its customer requirements, including a range of services at speeds from 1Gbps up to 40Gbps. In addition to providing for increased capacity and reach, ILS also lays the foundation for future Infinera systems and is designed to scale in the future to support up to 8 Tb/s of optical capacity on a single fiber pair as we introduce our 40Gbps and 100Gbps systems. ILS is fully integrated into Infinera s management and control software and can be managed seamlessly within the DTN System.

Infinera ATN System

The Infinera ATN System s metro edge platform is a state-of-the-art coarse and dense wavelength division multiplexing aggregation and transport solution designed with 400Gbps of total capacity, which can be allocated in various transmission speeds, including for example, using up to 40 wavelengths of 10Gbps. The ATN System s platform can be used to extend the Digital Optical Network architecture benefits of the Infinera DTN platform, and can also be used as a standalone WDM access system.

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Implementing numerous features in support of simplicity of use and operations, the Infinera ATN System is a cost-effective, efficient multiservice aggregation and transport platform. The Infinera ATN System supports direct wavelength connectivity to DTN nodes, reducing equipment costs and providing unique Bandwidth Virtualization capabilities across our integrated Digital Optical Networks.

Infinera IQ Network Operating System

The IQ Network Operating System is our embedded software operating system which enables our customers to simplify and speed up the tasks they perform to deliver, differentiate, and manage services and to optimize the utilization of their networks. The IQ Network Operating System for the DTN System utilizes Generalized Multi-Protocol Label Switching (GMPLS) for end-to-end provisioning, protection and restoration services, and a host of performance monitoring and software-definable testing capabilities. The ATN System supports end-to-end provisioning through software features similar to the DTN System.

Infinera Management Suite

The Infinera Management Suite is a broad set of standards-based network and element management tools and Operations Support System integration interfaces that are used by our customers to manage their DTN Systems and ATN Systems. Our management suite software includes our Digital Network Administrator, a scalable, robust, feature-rich Element Management System, and our Graphical Node Manager, an easy-to-use web-based management interface. Our hardware platforms, the DTN System and ATN System, are managed in an integrated fashion by the Infinera Management Suite.

Infinera Future Platforms

Infinera plans to introduce its 100Gbps PIC-based platform in 2012. This system will incorporate our 500Gbps PICs and our 5 Terabit OTN switch and will combine competitive fiber capacity with the unique features of our Digital Optical Network.

Technology

Digital Optical Network Architecture

Infinera was founded with a vision of increasing the functionality and improving the economics of optical transport systems. To that end, our core engineering team consists of optical component and systems experts who have collaborated to create an innovative optical networking architecture that combines the delivery of large amounts of low-cost bandwidth with distributed switching and the embedded software intelligence of bandwidth management to manage larger networks and deliver high-capacity services quickly and cost-effectively. We have focused our efforts, time and capital on developing our Digital Optical Network architecture and our system products.

Our Digital Optical Network architecture is designed to allow our customers to expand service reach, expedite service provisioning, ensure reliability and more effectively manage, monitor and scale their networks by processing data digitally rather than in analog format. We believe that the key to delivering this capability in a cost-effective manner is integrating the functionality of multiple discrete devices into a single set of semiconductor chips. This integration allows us to eliminate separate optical packages for each discrete optical device, which we believe is the largest cost challenge facing traditional systems. This integration has further enabled us to provide additional functionality and intelligence to our optical networking systems.

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Infinera PIC

We believe that our proprietary PICs are a key source of our value proposition and competitive advantage. We manufacture and package our PICs at our own facilities for use exclusively with our DTN System. We began the design and manufacture of our PICs shortly after we were founded in December 2000. We employ a multi-disciplinary approach towards the development and manufacturing of our PICs, with significant interaction between our manufacturing, system engineering and advanced technology groups. As a leader in the development of photonic integration, we have protected the intellectual property associated with our PIC manufacturing through a combination of trade secrets, patents and contractual protections. We believe that as a result of the combination of the multiple disciplines that were required to develop our PIC, together with the intellectual property protections that we have established, it will be difficult for others to duplicate the technology we have developed.

Our DTN System transmits optical capacity, utilizing a pair of PICs, in increments of 100Gbps of optical capacity, based on 10Gbps optical signals. Our transmitter PIC integrates the functionality of 51 optical functions onto a single chip, including lasers and modulators. In addition, our receiver PIC integrates the functionality of 11 optical functions onto a single chip, including photo-detectors and an optical de-multiplexer. We have designed our next-generation PICs to transmit optical capacity in increments of 500Gbps, based on 100Gbps optical signals. Our next-generation commercial PICs are designed to integrate the functionality of over 600 discrete functions into a pair of chips. Large-scale photonic integration brings Moore s Law economics of semiconductor manufacturing to optical networking, allowing future optical transport cost reductions to be viably sustained on a cost curve defined by volume manufacturing efficiencies, greater functional integration, increased device density, and manufacturing yield enhancements. We have forecasted a Moore s Law-like PIC product plan, which posits that the capacity per PIC will double every three years.

Customers

As of December 25, 2010, we have sold our Digital Optical Networks for deployment to 82 customers worldwide, including customers in each of the following customer segments:

- carrier;
- MSO;
- internet content provider;
- incumbent carrier;
- research and education/government; and
- reseller.

Our announced customers include Cox Communications, Deutsche Telekom, Global Crossing, Interoute and Level 3 Communications (Level 3). In addition, we currently have 22 customer deployments where customers have purchased our ATN platform to extend the Digital Optical Network experience to their metro edge deployments. We believe that in the longer-term, the metro dense wavelength division multiplexing (DWDM) market represents one of our most promising growth opportunities. We do not have long-term sales commitments from our customers.

In 2010, 2009 and 2008, Level 3 accounted for approximately 15%, 17% and 25% of our revenue, respectively. We had no other customer that represented over 10% of our revenue for these periods.

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Support and Services

We offer our customers a range of product support offerings, including 24/7/365 hardware and software technical support, installation and deployment services, spares management, first line maintenance services, on-site technical services, professional services, product technical training and extended product warranties. In 2010, we expanded our customer service offerings with a number of new services including outsourced network monitoring and management, provided from two Technical Assistance Centers, one in Annapolis Junction, Maryland, and the other in the United Kingdom. Our customer support services are provided by our employees and augmented where necessary by third-party strategic support partners. We believe that providing ongoing customer and technical support is critical to successful long-term relationships with, and follow-on sales to, our customers. We are committed to providing our customers with the highest levels of technical support and service on a global scale.

Sales and Marketing

We market and sell our products and related support services primarily through our direct sales force, supported by marketing and product management personnel. We may also use distribution or support partners to enter new markets or when requested by a potential customer. Our sales team has significant previous experience with the buying process and sales cycles typical of high-value telecommunications products. We expect to continue to add sales and support employees as we grow our business.

The sales process for our products entails discussions with prospective customers, analyzing their existing networks and identifying how they can utilize our systems capabilities within their networks. This process requires developing strong customer relationships, and we expect to leverage our sales force and customer support capabilities to establish relationships with both domestic and international service providers.

Over the course of the sales cycle, service providers often test our products before buying. Prior to commercial deployment, the service provider will generally perform a field trial of our products. Upon successful completion, the service provider generally accepts the products installed in its network and may continue with commercial deployment of additional products. We anticipate that our sales cycle, from initial contact with a service provider through the signing of a purchase agreement, may, in some cases, take several quarters.

Direct Sales Force. Our sales team sells directly to service providers worldwide. We maintain sales presences throughout the United States as well as in a number of international locations, including Argentina, China, France, Germany, Italy, Japan, Netherlands, Singapore, Spain, and the United Kingdom. We intend to expand our sales force around the world during 2011 as we address new geographical markets and begin selling our broader portfolio of products.

Indirect Sales Force. We have and will continue to employ business consultants, resale partners and sales agents to assist in our sales efforts to accelerate and strengthen our customer relationships. We expect to work with business partners to assist our customers in the sale, deployment and maintenance of our systems and have entered into distribution and resale agreements to facilitate the sale of our products.

Marketing and Product Management. Our product management team is responsible for defining the product features and development plan required to maximize our success in the marketplace. Product management supports our sales efforts with product and application expertise. Our marketing team works to create demand for our products by communicating our value proposition and differentiation through direct customer interaction, public relations, attendance at tradeshows and other events, and via the Internet and other marketing channels.

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Research and Development

Continued investment in research and development is critical to our business. To this end, we have assembled a team of engineers with expertise in various fields, including systems, sub-systems and components. Our research and development efforts are currently focused in Sunnyvale, California, Allentown, Pennsylvania, Beijing, China, Bangalore, India and Kanata, Canada. We have invested significant time and financial resources into the development of our Digital Optical Network architecture, our DTN System and ATN System, including the IQ Network Operating System and Management Suite software, the PIC and our manufacturing capabilities. We will continue to expand our product offerings and capabilities in the future and plan to dedicate significant resources to these continued research and development efforts. We are continually increasing the scalability and software features of our current DTN System, and developing additional functionality and new products, including products for metro applications. We are also working to develop new generations of PICs, and we intend to enable further integration in our Digital Optical Network architecture and our DTN System through continued research and development and investments in our manufacturing capabilities.

Our research and development expenses were $118.5 million, $97.3 million and $80.6 million in 2010, 2009 and 2008, respectively.

Employees

As of December 25, 2010, we had 1,072 employees. A total of 342 of those employees were located outside of the United States. None of our U.S. employees are subject to a collective bargaining agreement. Employees in certain foreign jurisdictions may be represented by local workers councils and/or collective bargaining agreements as may be customary or required in those jurisdictions. We have not experienced any work stoppages, and we consider our employee relationships to be good.

Manufacturing

We have invested significant time and capital to develop and improve the manufacturing process that we use to produce and package our PICs. This includes significant investments in personnel, equipment and the facilities needed to manufacture and package our PICs in Sunnyvale, California and Allentown, Pennsylvania. We also have invested in automating our manufacturing process and in training and maintaining the quality of our manufacturing workforce. As a leader in the development of photonic integration, we have protected the intellectual property associated with our PIC manufacturing through a combination of trade secrets, patents and contractual provisions. We believe that as a result of the combination of the multiple disciplines that were required to develop our PICs, together with the intellectual property protections that we have established, it will be difficult for others to duplicate the technology we have developed. Our manufacturing processes have been developed over several years and are protected by a significant number of trade secrets. We believe that the trade secrets associated with the manufacturing and packaging of our PICs provide us with a significant competitive advantage.

We use both domestic and international manufacturing partners to manufacture certain components of our products. Our contract manufacturers manufacture our products based on our specifications and bill of materials. In addition, the lead times associated with certain components are lengthy and preclude rapid changes in product specifications or delivery schedules. To date, we have not experienced any significant delays or material unanticipated costs resulting from the use of these contract manufacturers; however, such a strategy involves certain risks, including the potential absence of adequate capacity, the unavailability of or interruptions in access to certain process technologies, and reduced control over delivery schedules, manufacturing yields, quality and costs. Despite outsourcing manufacturing operations for cost-effective scale and flexibility, we perform rigorous in-house quality control testing to ensure the reliability of our products.

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Shortages in components that we use in our products are possible and our ability to predict the availability of such components may be limited. Some of these components are available only from single or limited sources of supply. Our products include some components that are proprietary in nature and only available from a single source, as well as some components that are generally available from a number of suppliers. Recently, we have increased our reliance on third parties to develop and manufacture components for our products. In some cases, significant time would be required to establish relationships with alternate suppliers or providers of proprietary components. We do not have any long-term contracts with any component providers that guarantee supply of components or their manufacturing services. If we encounter difficulty continuing our relationship with a supplier, or if a supplier is unable to meet our needs, we may encounter manufacturing delays that could adversely affect our business. Our ability to timely deliver products to our customers would be materially adversely impacted if we needed to qualify replacements for any of a number of the components used in our products.

We believe that our current manufacturing facilities can accommodate an increase in capacity for PIC production sufficient for our current product offerings. In December 2010, we completed the first phase of our PIC FAB manufacturing expansion in Sunnyvale, California. We expect to continue expansion activities throughout 2011, expanding our PIC manufacturing capabilities in advance of volume shipments of our 100Gbps platform in 2012.

Backlog

As of December 25, 2010, our backlog was $35.5 million. These orders are subject to future events that could cause the amount or timing of the related revenue to change, and, in certain cases, may be cancelled without penalty. We do not believe that backlog should be viewed as an indicator of future performance. A backlogged order may not result in revenue in a particular period, and the actual revenue may not be equal to our backlog amounts. Our presentation of backlog may not be comparable with that of other companies in our industry.

Competition

The optical communications network equipment market is highly competitive. Competition in this market is based on any one or a combination of the following factors:

- price and other commercial terms;
- functionality;
- existing business and customer relationships;
- the ability of products and services to meet customers immediate and future network requirements;
- installation capability;
- services;
- scalability; and
- manufacturing capability.

Competition in the optical networking market is dominated by a small number of very large, multi-national companies. Many of our competitors have substantially greater name recognition and technical, financial, and marketing resources, and greater manufacturing capacity, as well as better established relationships with the incumbent carriers, than we do. Many of our competitors have more resources to develop or acquire, and

more experience in developing or acquiring, new products and

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technologies and in creating market awareness for these products and technologies. In addition, many of our competitors have the financial resources to offer competitive products at below market pricing levels that could prevent us from competing effectively. Further, many of our competitors have built long-standing relationships with some of our prospective customers and have the ability to provide financing to customers and could, therefore, have an inherent advantage in selling products to those customers. Strong growth of bandwidth demand is driving the need for higher fiber capacity systems. Some of our competitors offer 40Gbps and 100Gbps systems to customers today allowing them to increase the capacity of their fiber. Infinera plans to introduce a 100Gbps PIC-based system in 2012. This system will incorporate our 500Gbps PICs and our 5 Terabit OTN switch and will combine competitive fiber capacity with the unique features of the Digital Optical Network. In order to respond to customer needs in the interim, we will introduce a non-PIC based 40Gbps solution that will increase the fiber capacity of the DTN System from 1.6 Tb/s to 6.4 Tb/s. We expect to introduce this system in mid-2011 and believe that it will represent the highest fiber capacity 40Gbps system in the market at that time.

Our competitors include current wavelength division multiplexing suppliers, such as Alcatel-Lucent, Ciena Corporation, Cisco Systems, Ericsson, Fujitsu Limited, Huawei Technologies Co. Ltd., NEC Corporation, Nokia-Siemens Networks, Tellabs and ZTE Corporation. These companies have historically set the competitive benchmarks for price and functionality. There are also smaller companies, including startups, that have announced plans or developed products that would compete for long-haul and metro optical transport business. We also face additional competition in certain market segments from companies which offer one or more products that compete directly or indirectly with our products. In addition, we may compete with other companies as we expand into new markets or as other companies develop products that are competitive with us.

Intellectual Property

Our success as a company depends upon our ability to protect our core technology and intellectual property. To accomplish this, we rely on a combination of intellectual property rights, including patents, trade secrets, copyrights and trademarks, as well as customary contractual protections.

We rely primarily on trade secret protection for our PIC and PIC manufacturing processes, including design, fabrication and testing of our PICs. However, there can be no assurances that trade secrets will be sufficient to provide us with a competitive advantage or that others have not or will not reverse engineer our designs or discover, develop or disclose the same or similar designs and manufacturing processes.

As of December 25, 2010, we held 143 U.S. patents and three international patents expiring between 2021 and 2028, and held 162 U.S. and 26 foreign pending patent applications. We do not know whether any of our pending patent applications will result in the issuance of patents or whether the examination process will require us to narrow our claims.

We may not receive competitive advantages from the rights granted under our patents and other intellectual property. Any patents granted to us may be contested, circumvented or invalidated over the course of our business, and we may not be able to prevent third parties from infringing these patents. Therefore, the exact effect of the protection of these patents cannot be predicted with certainty.

We believe that the frequency of assertions of patent infringement is increasing as patent holders, including entities that are not in our industry and who purchase patents as an investment or to monetize such rights by obtaining royalties, use such actions as a competitive tactic as well as a source of additional revenue. We have been sued by Cheetah Omni LLC (Cheetah) for alleged

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infringement of their patents. See the section set forth in Part I, Item 3. Legal Proceedings for additional information regarding this lawsuit. Any claim of infringement from a third party, even those without merit, could cause us to incur substantial costs defending against such claims, and could distract our management from running our business. Furthermore, a party making such a claim, if successful, could secure a judgment that requires us to pay substantial damages. A judgment could also include an injunction or other court order that could prevent us from selling our products. In addition, we might be required to seek a license for the use of such intellectual property, which may not be available on commercially reasonable terms or at all. Alternatively, we may be required to develop non-infringing technology, which would require significant effort and expense and may ultimately not be successful.

In addition to trade secret and patent protections, we generally control access to and the use of our proprietary software and other confidential information. This protection is accomplished through a combination of internal and external controls, including contractual protections with employees, contractors, customers, and partners, and through a combination of U.S. and international copyright laws. We incorporate a number of third party software programs into our DTN System and ATN System pursuant to license agreements.

We license some of our software pursuant to agreements that impose restrictions on our customers ability to use such software, such as prohibiting reverse engineering and limiting the use of copies. We also seek to avoid disclosure of our intellectual property by relying on non-disclosure and assignment of intellectual property agreements with our employees and consultants that acknowledge our exclusive ownership of all intellectual property developed by the individual during the course of his or her work with us. The agreements also require that each person maintain the confidentiality of all proprietary information disclosed to them. Other parties may not comply with the terms of their agreements with us, and we may not be able to enforce our rights adequately against these parties. We also rely on contractual rights to establish and protect our proprietary rights in our DTN System and ATN System.

We incorporate open source software into our products. Although we monitor our use of open source closely, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our products. In such event, we could be required to seek licenses from third parties in order to continue offering our products, to re-engineer our products or to discontinue the sale of our products in the event re-engineering cannot be accomplished on a timely basis, any of which could adversely affect our business, operating results and financial condition.

Environmental Matters

Our business and operations are subject to environmental laws in various jurisdictions around the world including the Waste Electrical and Electronic Equipment and Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment regulations adopted by the European Union. We seek to operate our business in compliance with such laws. We are currently subject to laws relating to the materials and content of our products and certain requirements relating to product take back and recycling. Environmental regulation is increasing, particularly outside of the United States, and we expect that our international operations will be subject to additional environmental compliance requirements, which may expose us to additional costs. To date, our compliance costs relating to environmental regulations have not resulted in a material adverse effect on our business, results of operations or financial condition.

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Business Segment Data and Our Foreign Operations

We operate in the single industry segment of optical networking systems. Information concerning revenues, results of operations and revenues by geographic area is set forth in Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations and in Note 15, Segment Information, of Notes to Consolidated Financial Statements, both of which are incorporated herein by reference. Information concerning identifiable assets is also set forth in Note 15, Segment Information, of Notes to Consolidated Financial Statements. Information on risks attendant to our foreign operations is set forth below in Item 1A. Risk Factors.

Executive Officers and Directors

Our executive officers and directors, and their ages and positions as of December 25, 2010, are set forth below:

Name	Age	Position
Thomas J. Fallon	49	President, Chief Executive Officer and Director
David F. Welch, Ph.D.	50	Co-founder, Executive Vice President, Chief Strategy Officer and Director
Ita M. Brennan	43	Chief Financial Officer
Ronald D. Martin	62	Vice President, Worldwide Sales
Michael O. McCarthy III	45	Chief Legal and Administrative Officer
Kambiz Y. Hooshmand [(1)(2)(3)]	49	Chairman of the Board
Kenneth A. Goldman [(3)(4)]	61	Director
Philip Koen [(3)(4)]	58	Director
Dan Maydan, Ph.D. [(1)(2)]	75	Director
Paul Milbury [(2)(4)]	62	Director
Carl Redfield [(1)(2)]	63	Director

(1) Member of Nominating and Governance Committee
(2) Member of Compensation Committee
(3) Member of Acquisition Committee
(4) Member of Audit Committee

Thomas J. Fallon has served as our President and Chief Executive Officer since January 2010 and as a member of our board of directors since July 2009. Mr. Fallon served as our Chief Operating Officer from October 2006 to December 2009 and as our Vice President of Engineering and Operations from April 2004 to September 2006. From August 2003 to March 2004, Mr. Fallon was Vice President, Corporate Quality and Development Operations of Cisco Systems, Inc., a networking and telecommunications company. From May 2001 to August 2003, Mr. Fallon served as Cisco s General Manager of the Optical Transport Business Unit. Mr. Fallon is currently a member of the Engineering Advisory Board of the University of Texas at Austin. Mr. Fallon holds a B.S.M.E. and M.B.A. from the University of Texas at Austin.

David F. Welch, Ph.D. co-founded our company and has served as our Executive Vice President, Chief Strategy Officer since January 2004 and as a member of our board of directors since October 2010. From May 2004 to January 2007, he served as our Chief Development Officer/Chief Technology Officer. From May 2001 to November 2006, Dr. Welch also served as a member of our board of directors. From February 2001 to April 2001, Dr. Welch served as Chief Technology Officer of the Transmission Division of JDS Uniphase Corporation, an optical component company. From January 1985 to February 2001, Dr. Welch served in various executive roles, including Chief Technology

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Officer and Vice President of Corporate Development of SDL, an optical component company. Dr. Welch is the Founder and President of Students First, a non-profit organization focused on education reform. Dr. Welch holds a B.S. in Electrical Engineering from the University of Delaware and a Ph.D. in Electrical Engineering from Cornell University.

Ita M. Brennan has served as our Chief Financial Officer since July 2010. Prior to becoming CFO, Ms. Brennan served as our Vice President of Finance and Corporate Controller since July 2006. From September 1997 to July 2006, Ms. Brennan held various roles at Maxtor Corporation, an information storage solutions company, including Vice President of Finance for Maxtor s worldwide operations. Ms. Brennan is a chartered accountant and public accounting alumna of Deloitte and Touche, having worked at the firm in Ireland and the U.S.

Ronald D. Martin has served as our Vice President of Worldwide Sales since August 2009. From November 2007 to June 2009, Mr. Martin served as Chief Marketing and Strategy Officer and president of ADVA Optical Networking s North American subsidiary, an optical networking company. From May 2001 to November 2007, Mr. Martin served as Vice President and General Manager of the optical business unit of Cisco Systems, a networking and telecommunications company. From May 1987 to May 2001, Mr. Martin served as Chief Operating Officer at Fujitsu Network Communications, a networking and telecommunications company. Mr. Martin holds an A.A. from Iowa Lakes College.

Michael O. McCarthy III has served as our Chief Legal and Administrative Officer since March 2010. From January 2008 to March 2010, Mr. McCarthy served as our Chief Legal Officer. From May 2003 to January 2008, Mr. McCarthy served as our Vice President and General Counsel. Prior to joining our Company, Mr. McCarthy served in various executive roles, including Senior Vice President of Worldwide Sales and Support and Senior Vice President and General Counsel of Ciena Corporation, a communications equipment company. Mr. McCarthy holds a B.A. in Mathematical-Economics from Colgate University and a J.D. from Vanderbilt University s School of Law.

Kambiz Y. Hooshmand has been a member of our board of directors since December 2009 and has served as Chairman of our board of directors since October 2010. From March 2005 to May 2009, Mr. Hooshmand served as President and CEO of Applied Micro Circuits Corporation, a communications solutions company. From February 2000 to March 2005, Mr. Hooshmand served as Vice President and Division General Manager of Cisco Systems. From June 1997 to February 2000, Mr. Hooshmand served as Cisco s Vice President of Engineering. From January 1992 to June 1997, Mr. Hooshmand served as Director of Engineering of StrataCom, a networking solutions company. Mr. Hooshmand holds a B.S. in Electrical Engineering & Computer Science from California State University, Chico and an M.S. in Engineering from Stanford University.

Kenneth A. Goldman has been a member of our board of directors since February 2005. Mr. Goldman has been the Senior Vice President, Finance and Administration, and Chief Financial Officer of Fortinet Inc., a provider of unified threat management solutions, since September 2007. From November 2006 to August 2007, Mr. Goldman served as Executive Vice President and Chief Financial Officer of Dexterra, Inc. From August 2000 until March 2006, Mr. Goldman served as Senior Vice President, Finance and Administration, and Chief Financial Officer of Siebel Systems, Inc., a supplier of customer software solutions and services. From December 1999 to December 2003, Mr. Goldman served as an advisory council member of the Financial Accounting Standards Board Advisory Council. Mr. Goldman serves on the board of directors of NXP Semiconductor, a mixed signal and standards product semiconductor company and BigBand Networks, Inc., a provider of broadband multimedia infrastructure. Mr. Goldman is currently on the board of trustees of Cornell University and was formerly a member of the Treasury Advisory Committee on the Auditing Profession, a public committee that made recommendations in September 2008 to encourage a more sustainable auditing profession. Mr. Goldman holds a B.S. in Electrical Engineering from Cornell University and an M.B.A. from the Harvard Business School.

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Philip Koen has been a member of our board of directors since February 2010. Mr. Koen has been the Chief Executive Officer of Montero Partners, an advisory services company, since February 2010. From March 2006 to January 2010, Mr. Koen served as Chief Executive Officer and Director of SAVVIS, Inc., an IT infrastructure services company. From July 1999 until March 2006, Mr. Koen was employed by Equinix, Inc., a provider of network neutral data centers and Internet exchange services, as President and Chief Operating Officer and as Chief Financial Officer. Mr. Koen is currently on the board of trustees of Webster University. Mr. Koen holds a B.A. in Economics from Claremont McKenna College and an M.B.A. from the University of Virginia.

Dan Maydan, Ph.D. has been a member of our board of directors since September 2001. From December 1993 to April 2003, Dr. Maydan served as President of Applied Materials Inc., a semiconductor equipment manufacturing company, and was appointed President Emeritus of Applied Materials in April 2003. Dr. Maydan was a member of the board of directors of Applied Materials Inc. from June 1992 until March 2006. Dr. Maydan serves on the board of directors of Electronics for Imaging, Inc., a digital imaging and print management solutions company. Dr. Maydan is currently on the board of trustees of The Palo Alto Medical Foundation. Dr. Maydan holds a B.S. and M.S. in Electrical Engineering from the Israel Institute of Technology and a Ph.D. in Physics from Edinburgh University of Scotland.

Paul Milbury has been a member of our board of directors since July 2010. Mr. Milbury served as Vice President of Operations and Chief Financial Officer of Starent Networks Corp., a provider of mobile network solutions, from January 2007 until its acquisition by Cisco Systems in 2009. From December 2009 to July 2010 he played a key role in integrating Starent Networks into Cisco Systems to create the Mobile Internet Technology Group. From December 2000 to March 2007, Mr. Milbury served as Vice President and Chief Financial Officer of Avid Technology, Inc., a digital media creation, management, and distribution solutions company. From January 2000 to December 2000, Mr. Milbury served as Chief Financial Officer of iBelong.com, a developer of customized Internet portals. Mr. Milbury holds a B.B.A. in Business and Economics and an M.B.A. from the University of Massachusetts, Amherst.

Carl Redfield has been a member of our board of directors since August 2006. From September 2004 to his retirement in May 2008, Mr. Redfield served as Senior Vice President, New England executive sponsor, of Cisco Systems, Inc. From February 1997 through September 2004, Mr. Redfield served as Cisco s Senior Vice President, Manufacturing and Logistics. Mr. Redfield holds a B.S. in Materials Engineering from Rensselaer Polytechnic Institute and has completed post-graduate studies at the Harvard Business School.

Our board of directors is currently composed of eight members. Messrs. Goldman, Hooshmand, Koen, Milbury and Redfield and Dr. Maydan qualify as independent directors in accordance with the listing requirements of NASDAQ Global Select Market (NASDAQ). The NASDAQ definition of independence includes a series of objective tests, such as that the director is not, and has not been for at least three years, one of our employees and that neither the director, nor any of his family members, has engaged in various types of business dealings with us. In addition, as further required by the NASDAQ rules, our board of directors has made a subjective determination as to each independent director that no relationships exist that, in the opinion of our board of directors, would interfere with his exercise of independent judgment in carrying out the responsibilities of a director. In making these determinations, our directors reviewed and discussed information provided by the directors and us with regard to each director s business and personal activities as they may relate to us and our management.

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Available Information

Our website address is *http://www.infinera.com*. Information contained on our website is not incorporated by reference into this Form 10-K unless expressly noted. We file reports with the Securities and Exchange Commission (SEC), which we make available on our website free of charge. These reports include Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, current reports on Form 8-K and amendments to such reports, each of which is provided on our website as soon as reasonably practicable after we electronically file such materials with or furnish them to the SEC. You can also read and copy any materials we file with the SEC at the SEC s Public Reference Room at 100 F Street, N.E., Washington, DC 20549. You can obtain additional information about the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a website (*http://www.sec.gov*) that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC, including us.

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