

Juniper Networks

Corporate Citizenship
and Sustainability Report

2017 - 2018

Table of Contents

Letter from the CEO.....	3	People and Communities	25
Company Profile and Vision.....	4	Our Employees	26
ESG Management.....	6	Employee Engagement	26
Corporate Governance	10	Employee Wellness.....	27
Business Ethics/Anti-Corruption	11	Diversity and Inclusion	30
Corporate Ethics	11	Our Partners in the Value Chain	31
Compliance.....	12	Responsible Materials Sourcing	31
Product Responsibility	12	Labor Practices and Human Rights	32
Customer Satisfaction.....	12	Our Communities.....	33
Data Protection and Privacy.....	13	Community Engagement	33
Product Safety and Compliance.....	13	Appendix	36
Supply Chain Management	13	Appendix I: Material Topics and	
Supply Chain Resilience.....	13	Material Aspects	37
Supply Chain Security	14	Appendix II: GRI Content Index	39
Environmental Sustainability.....	15	Appendix III: Memberships	
Operational Footprint	16	and Associations	43
Energy Management	16		
Greenhouse Gas (GHG) Emissions	18		
Water and Wastewater			
Management.....	21		
Product Sustainability	21		
Sustainable Design	21		
Lifecycle Management	22		

About this Report

This document, Juniper Networks® fifth full Corporate Citizenship and Sustainability (CCS) Report, is a summary of the company's environmental, social, and economic impacts and performance. The scope of this report includes the company's business operations and facilities (owned or maintained) during the reporting period, Jan. 1, 2017 through Dec. 31, 2018. Included are links to useful information and publicly available resources related to our financial, corporate governance, social, and environmental policies and performance. Beginning with this report, Juniper Networks intends to report on an annual cycle, with the next report covering 2019 performance.

This Report has been prepared in accordance with the GRI Standards: Core option. It has not been externally assured.

Report Availability and Contact

This Report is available in its entirety on our website: <https://www.juniper.net/sustainability>. We welcome your questions, comments and feedback, which can be sent to corp-citizenship-sustainability@juniper.net.

Letter From the CEO

Juniper Networks exists to solve the world's most difficult networking problems. We challenge complexity with simplicity – we focus on engineering solutions to important problems. We work tirelessly alongside our customers to create a network of opportunities for the world's next generation of engineers, critical thinkers and thought leaders.

We believe in creating and fostering a diverse and inclusive workplace, a place where our colleagues are empowered to reach their full potential. We live this commitment by recruiting strategically, supporting K-12 STEM education for girls and underserved minorities and directing philanthropic grants to key partners who are helping to broaden access to computer science education around the globe. In 2018, we published our inaugural diversity update to share our data transparently and set an example for driving positive change. We acknowledge our challenges and are clear about where we plan to focus our efforts to drive improvement. We will provide updates on our strategy and progress in this annual CCS report and on our [website](#).

In order to continually improve our operational sustainability, we conduct a thorough materiality assessment every three years. This allows us to evaluate a wide set of topics that are aligned with our operations, with our industry and with organizations like the [Sustainable Accounting Standards Board](#) and the [Global Reporting Initiative](#). We engage with both internal and

external stakeholders to gather feedback that allows us to prioritize our opportunities for setting company goals, driving programs and communicating our results to our valued stakeholders.

A key priority for Juniper Networks is to become more energy efficient and to reduce the environmental impacts of the energy we use. By deploying a sophisticated monitoring and management tool, coupled with a high level of executive support, in 2018 we launched an effort to shape behavioral energy efficiency among lab equipment users. This effort has resulted in lower energy consumption by our operations for the first time since 2014. In 2018, we also completed migrating our labs – our most energy-intensive work – to a data center in Quincy, WA, where the majority of the energy supply is generated through hydroelectric power. In addition to the overall lab migration, we also leveraged this project to optimize our cooling infrastructure and retire less efficient devices, contributing to a 15% reduction in energy use and a cumulative savings of more than \$9 million since 2016.

Juniper's stakeholders, engineers and leaders work together every day to deliver innovative solutions to our customers. Our partnerships with suppliers and community organizations extend our reach into, and impact on, the world—a role that we take seriously. There are people who depend on us to play our role, to lead by example and to continually challenge ourselves



to do better – for our employees, our neighbors, and for the planet we inhabit and strive to protect for future generations. I know that we are up to these challenges as we strive to be the world's most trusted and most sustainable technology solution provider.

Rami Rahim
CEO, Juniper Networks

Company Profile and Vision

Company Profile

At Juniper, we're committed to building more than a network. We believe in constantly challenging convention as a way of realizing the full potential of employees and our customers.

In designing, developing, and selling products and services that support high-performance network technology, we empower our global customers to be more agile, secure, cost-effective, and efficient. We sell our products, which include network hardware and service offerings across routing, switching, and security, in more than 100 countries spanning the Americas, Europe, Asia Pacific, the Middle East, and Africa.

Our products and services support myriad customers who view best-in-class network technology as critical to their success. These customers include global service providers, cloud environments, enterprise companies, governments, healthcare and education institutions, and research and public sector organizations. In addition to our hardware products, we offer related services such as technical support, education and training programs, and various other professional services.

Juniper at a Glance

Founded: February 1996

NYSE: JNPR

CEO: Rami Rahim

Headquarters: Sunnyvale, California

Employees as of Dec. 31, 2018: 9,293

Offices: 117 offices in 47 countries

Net Revenue: USD \$4.65 billion (2018)

Research and Development Investment: USD \$1 billion (2018)



[Member of the FTSE4Good Index Series, 2018](#)

[CDP Legacy Responder for Climate Change, 2018](#)

[CDP Legacy Responder for Water Security, 2018](#)

["Best of Show" award, Interop Tokyo, 2018](#)

[America's Best Employers, 2018](#)

[Govies: The Government Security Awards, 2018](#)

[Best Places to Work in Tech, 2018](#)

[Channel Chiefs: The 50 Most Influential, 2018](#)

[Worldstar Packaging Award, 2018](#)

[CDP Supplier Engagement Leader, 2018](#)

[America's Most JUST Companies, 2017](#)

[Massachusetts Excellence in Commuter Options \(ECO\) Awards, 2017](#)



Our Vision

We exist to solve the world's most difficult networking problems. New technologies such as IoT, big data, and multicloud are introducing new levels of complexity to the business world. And complexity is the opposite of progress.

We bring simplicity to networking with products, solutions, and services that connect the world. Simple is our obsession. Simple is powerful. And simple always starts with engineering.

A company of innovators, we believe that creating simplicity through engineering is the highest form of innovation. From our first release, the ground-breaking Juniper Networks® M40 router, to today's end-to-end advancements in network security, automation, performance, and scale, our drive to move beyond the constraints of complexity has expanded the reach of networks everywhere. We've enabled our customers to connect to everything and empower everyone in ways that have literally changed the world.

Our Culture: The Juniper Way

We are an engineering company at heart, where solving complex problems with groundbreaking solutions comes naturally. At Juniper, we believe that the network is the single greatest vehicle for knowledge, understanding, and human advancement that the world has ever known. The task of delivering a network in the digital transformation era relies on the creativity and commitment of our people. More than a set of shared values, the Juniper Way reflects the

company's commitment to inspire every Juniper employee to do their best work—their life's work.

At Juniper, we put egos aside to solve the most pressing problems facing our company, our society, and our planet. Rather than just looking inward, we truly focus on the vision and outcomes of the organization as a whole. In doing this, we are reminded to be bold, build trust, and consistently deliver excellence – that's the Juniper Way.



THE JUNIPER WAY

Environmental, Social, and Governance Management

Corporate Citizenship and Sustainability

Juniper is committed to corporate responsibility in our own practices, and to influencing the practices of those in our worldwide supply chain. We've adopted a framework of practices that drive good corporate governance, environmental sustainability, and social responsibility, and we advocate those practices to our partners in all aspects of our business.

In 2018, we restructured our Corporate Citizenship and Sustainability (CCS) strategy and disclosure to align with our most recent materiality analysis. Our CCS strategy is organized into three main pillars, each with an individual

focus area. These focus areas define our priorities and direct our efforts to where they can have the greatest impact. These three pillars – Corporate Governance; Environmental Sustainability; and People and Communities—include those issues that are most material to our business and our stakeholders.

Governance Structure and Culture

We believe that in order to successfully address the world's most complex ESG issues, our company leadership must be informed, responsible, and accountable. Juniper's CCS initiatives and priorities are overseen, at the highest level, by our chief executive officer (CEO). Members of our Corporate Social Responsibility (CSR) executive committee report regularly to the CEO. Led by the EHSS Department, the

committee includes senior executives representing our human resources, marketing, sales, engineering, manufacturing operations, real estate and workplace services, and legal departments. In addition to overseeing Juniper's environmental management system (certified ISO 14001), the committee directs the vision and strategy of our CCS efforts, manages those issues across the organization, ensures alignment with corporate priorities, and addresses any issues related to social responsibility and sustainability throughout the company.

Our Board of Directors' Audit Committee oversees our Integrity and Compliance program. They receive updates from executive champions and work with management on CSR-related issues that have the potential to create enterprise-level risks for the company or could otherwise have a significant impact on Juniper's business activities and performance. They are also consulted when preparing regulatory disclosures, such as the conflict minerals report, human trafficking statement, and CSR initiatives highlighted in our financial and annual reports. The Audit Committee also reports to the full board on CSR-related issues as needed. Beginning in 2018, the Nominating and Governance Committee, which exercises general oversight of the board and its activities, also receives updates on the company's CSR activities.

Three Pillars of Our Corporate Citizenship and Sustainability Program

Corporate Governance	Environmental Sustainability	People and Communities
<p>Business Ethics and Anti-Corruption</p> <p>Product Responsibility</p> <ul style="list-style-type: none"> · Customer Satisfaction · Privacy and Data Security · Product Safety and Compliance <p>Supply Chain Management</p> <ul style="list-style-type: none"> · Supply Chain Resilience · Supply Chain Security 	<p>Operational Footprint</p> <ul style="list-style-type: none"> · Energy Management · Greenhouse Gas Emissions · Water and Wastewater Management <p>Product Sustainability</p> <ul style="list-style-type: none"> · Sustainable Design · Lifecycle Management 	<p>Our Employees</p> <ul style="list-style-type: none"> · Employee Engagement · Employee Wellness · Diversity and Inclusion <p>Our Partners in the Value Chain</p> <ul style="list-style-type: none"> · Responsible Materials Sourcing · Labor Practices and Human Rights <p>Our Communities</p> <ul style="list-style-type: none"> · Community Engagement

Materiality Analysis

To inform our CCS strategy and disclosure, we conduct a materiality assessment every three years to identify those issues that are most important to our internal and external stakeholders, and most salient to our business. Material topics are defined as issues that have a direct or indirect impact on our ability to create, preserve, or erode economic, environmental, and social value for the company, stakeholders, and society at large.

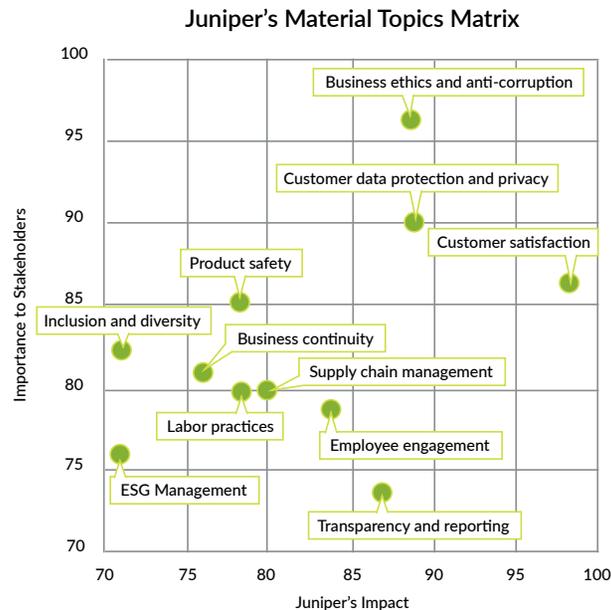
Our 2018 materiality assessment was conducted in three major steps:

- The selection of material topics, in which our team identified ESG topics and mapped them to the materiality categories outlined by the Sustainable Accounting Standards Board (SASB). This selection was informed by previous assessment results, the current Global Reporting Initiative (GRI) guidelines, and our industry's CSR landscape. The selection and survey of internal and external stakeholders, in which stakeholders were chosen to represent wide ranges of experience, ESG issues, and interest groups. Surveys were conducted in an interview-style, which allowed us to gather both qualitative and quantitative feedback on what topics or stakeholders prioritized by their relative importance or their perceived impact.
- The selection and survey of internal and external stakeholders, in which stakeholders were chosen to represent a wide scope of experience, ESG issues, and interest groups. Surveys were conducted in an interview-

style, allowing us to gather both qualitative and quantitative feedback on what topics our stakeholders prioritized based on their relative importance and/or their perceived impact.

- Documentation and analysis of the results, which are used to set company goals, drive programs, and inform our regular sustainability disclosures.

Shown below is the outcome of this process, demonstrated in a scatter graph of the topics' impact and importance. Topics that fall within the top 30% of stakeholder are considered material, and will continue to guide our CCS programs, initiatives, and disclosure, including the sections covered in this report. Details of these material topics can be found in Appendix I of this report.



Transparency and Reporting

We are committed to providing transparency in all aspects of our business, including our efforts to make a positive impact on society and the environment. To demonstrate this commitment, we intend to enhance our disclosure by publishing our Corporate Citizenship and Sustainability Report on an annual cycle, rather than the current two-year cycle. We will continue to ensure the transparency of our sustainability and CSR programs using clear, easily-accessible public disclosures. More frequent disclosure will demonstrate our commitment to good environmental, social, and governance practices, and will foster a more meaningful dialogue with our stakeholders.

Being bold—not shying away from data when it shows there is more work to be done—is the Juniper way. For this reason, we're publishing an [annual diversity update](#) to share our numbers, to think differently, and—most importantly—to set an example for driving change.

An important first step requires publicly acknowledging our current challenges and being clear about where we plan to focus our efforts to facilitate improvement. The data in our 2018 update show that Juniper has a long way to go to achieve gender balance among our employees across the globe, and most significantly in our engineering teams and in our leadership ranks.

Stakeholder Communication and Engagement

Our stakeholder engagement activities provide valuable insights and feedback, which help us assess both potential risks and opportunities. In addition to conducting regular materiality assessments, we maintain an ongoing and inclusive dialogue with our stakeholders in which we communicate our progress on important topics. The feedback from our stakeholders is used to constantly improve how we manage, refine, and respond to material issues. The table below outlines how we engage with our key stakeholders and reveals the types of topics and concerns that are raised through these forums.

Industry Groups and Associations

Juniper plays a leadership role in a variety of government and industry organizations, ensuring the safety and security of the network that supports vital sectors and resources. Through these memberships, Juniper provides key input for developing federal, state, and international policies, further affirming our role as a thought leader in the space.

A full list of the entities we belong to and/or collaborate with is available in Appendix III—Memberships and Associations.

Primary Stakeholder Groups	Channels for Engagement	Key Topics/Concerns
Customers	Customer surveys; meetings; security and corporate social responsibility audits; codes of conduct compliance	Product innovation and compliance; security; responsible and ethical sourcing; environmental, health and safety; climate change and water security
Strategic Partners	Global Partner Conference; surveys	Collaboration; partner sustainability needs
Employees	Surveys; meetings	Employee engagement; diversity and inclusion; corporate citizenship
Government	World Economic Forum; industry organizations; government affairs	Cybersecurity; regulations and standards; responsible and ethical sourcing
Communities and Nonprofits	Responsible Business Alliance (RBA); Responsible Minerals Initiative (RMI); CDP; Juniper Networks Foundation Fund; nonprofit partnerships	Global and local impacts; responsible and ethical sourcing; collaboration
Suppliers	CDP Supply Chain initiative; RBA and RMI; code of conduct and compliance audits and risk assessments; supplier business reviews; supplier forums	Supply chain transparency and compliance; responsible and ethical supply chain; security; creating shared value; collaboration
Shareholders	Annual meeting; quarterly financial results; shareholder outreach	Financial strategy and metrics; transparency; governance; diversity; climate change; water

Public Policy and Advocacy



Anything that threatens the integrity and advancement of the network is of vital importance to our business and our customers, and therefore, such threats are a focus of our public policy

and advocacy work. We work closely with governments in the areas crucial to the support and advancement of their networks, including:

- Cybersecurity, supply chain assurance, internet governance, and privacy
- Protecting the freedom of the Internet and the ability of the private sector to innovate
- The rapidly changing Internet landscape (mobility, cloud computing)
- Intellectual property
- Social and environmental sustainability
- Educating the next generation of IT leaders
- Global economy and trade
- Immigration
- Tax policy

Political Contributions

Juniper Networks does not donate corporate funds to political candidates or political parties, nor does Juniper have an employee-funded political action committee (PAC) that would make such donations.



Corporate Governance



Our Vision of Success:

We believe that in order to successfully address complex environmental, social, and governance (ESG) issues, our company leadership must be informed and accountable. At Juniper, our goal is to improve the world around us, and we believe that honesty, communication, and transparency are foundational to our success.

What We're Doing:

To ensure we are meeting the expectations of our stakeholders, we are committed to regularly assessing and reporting on our most material ESG issues. In this section, we discuss our commitment to improving transparency, upholding high ethical standards, and maintaining product compliance and customer satisfaction.

In This Section:

Business Ethics and Anti-Corruption

Product Responsibility

Customer Satisfaction

Data Protection and Privacy

Product Safety

Supply Chain Management

Supply Chain Resilience

Supply Chain Security

Corporate Governance

Business Ethics and Anti-Corruption

Corporate Ethics

Juniper is committed to conducting business in an open and honest manner – with public commitments to transparency and integrity – as evidenced by our guiding policies, disclosures, and the core values defined as [The Juniper Way](#). Our compliance objective is simple: reduce the risk of compliance issues through the implementation of intuitive operating principles and comprehensive policies and disclosures.

Juniper requires the highest standards of business and professional conduct – both internally and with those around us, including our customers, partners, and suppliers. Interactions with our stakeholders are governed by our [Worldwide Code of Business Conduct](#), a document that demonstrates the expectation that all parties will behave in a responsible, authentic, and trustworthy way, as well as comply with applicable laws and regulations. Beyond policies for our own employees, Juniper also maintains a [Business Partner Code of Conduct](#) for our business partners.

Juniper provides regular corporate ethics training to our employees. Since 2016, our Compliance team has sought to measure the impact of these trainings through the use of an

anonymous annual employee Integrity Survey. With this survey, we are able to assess critical attitude and cultural issues, including trust in senior management, observed misconduct, fear of retaliation, and perception of company integrity, providing a yardstick against which we can measure the success of our trainings year

over year as well as to isolate and address gaps in training and management. They have informed many improvements to our ethics trainings – including making trainings more interactive and mobile-friendly – and have helped us improve the accessibility of our company policies and procedures.



Compliance

Compliance with all local laws and regulations—environmental, social, or otherwise—is an integral part of our commitment to conduct our business responsibly. During the reporting period, there were no significant fines or sanctions for noncompliance with laws and regulations relating to environmental impacts or the provision and use of our products.

To ensure continued compliance, our Compliance team assesses compliance policies and procedures, mitigates related issues, and makes specific recommendations to improve the company's broader enterprise risk management ecosystem. Policy development is informed by multiple independent sources, including Amnesty International, the United Nations, the Responsible Business Alliance, and the International Labor Organization. Every year, we conduct reviews of our [Worldwide Code of Business Conduct](#) and [Business Partner Code of Conduct](#), which are informed by an annual risk assessment that identifies what has changed both inside and outside the business, and make revisions as needed. Other important information about our Corporate Governance Policies and Principles can be found on our [website](#).

In 2016, Juniper introduced a fraud and anti-corruption data analytics program that examines transactional data in large volumes in an effort to identify anomalies and exceptions that may indicate compliance issues. In 2018, we expanded this program to include gray market risk analytics, enabling our compliance team to hone their skillset,

proactively identify issues, and change behaviors at the speed of our business. The use of data analytics has also allowed us to automate trade compliance processes, leading to an increase in on-time orders. This innovation has led to a monumental shift in our operations, further establishing the compliance team as company leaders and elevating the culture of compliance at Juniper.

Product Responsibility

At Juniper, we recognize the importance of creating and delivering products and services in a responsible way. From ensuring stellar customer satisfaction to respecting and protecting the privacy and data of every individual whose life we touch; our vision is to continuously improve our products and services while maintaining the highest level of responsibility. To that end, every Juniper employee is accountable for contributing to the value of the products and services we deliver.

Customer Satisfaction

We Care About Our Customers

At Juniper, we take on the world's toughest challenges, so our customers don't have to. We design, iterate, and simplify to deliver next-generation solutions that help our customers unlock their full business potential. Whether that means bringing new, revenue-generating services to market in minutes; reducing network costs; enabling smarter, more efficient business processes; providing security and protection for the most valuable assets; or delivering a deeper and more robust end-user experience, we deliver simple, competitive solutions consistently and

reliably.

We serve customers that depend on network technology to deliver mission-critical transactions, applications, and services, including many of the world's largest service providers, the world's top telecom companies, major banks and global financial services organizations, government agencies, healthcare and educational institutions, and energy and utility companies.

Why do so many successful businesses rely on Juniper? Quite simply, because we provide the kind of performance, thought leadership, and industry-leading services that enable the world's best networks.

Juniper Customer Satisfaction Index

On an annual basis, we conduct a global customer relationship survey to provide an objective assessment and insights into where we are performing well and where we have opportunities to improve.

The Juniper Customer Satisfaction Index (JCSI) is our official measure of customer satisfaction and loyalty. It is a composite index comprised of a weighted average of three questions: overall satisfaction, likelihood to recommend, and likelihood to repurchase. We are pleased to report that the JCSI has primarily remained steady since 2016, totaling 7.88/10 in 2018.

Privacy and Data Security



We respect the privacy of individuals who provide us with personal information, including our customers, vendors, partners, and visitors to our facilities and website. Our commitment to privacy is governed by our [Privacy Policy](#), which outlines, among other topics, how personal information may be collected and used, our process for notifying individuals about the information we may collect, and how individuals may opt out.

We require employees who are most likely to have access to personal data undergo annual privacy training. New employees in sensitive areas also receive this training, as well as function-specific training as they join. We also regularly review the privacy and security controls of our suppliers as part of our vendor compliance process, ensuring they meet our standards.

Promoting Privacy and Information Security Awareness



The Privacy Compliance team and Information Security team host on-going company-wide privacy and infosec training webinars as well as targeted trainings to specific functional groups such as Marketing, Customer Support, Procurement, and HR.

Juniper is committed to the integrity, security, and assurance of our products, consistently demonstrating the ability to fix security vulnerabilities when they are found and notify customers according to our Security Incident Response Team procedures. Security incident details are also published on our [Security Incident Response Team](#) blog.

Product Safety and Compliance

As part of our approach to product design, we follow the precautionary principle and consider both the materials we use and what happens at the end of their useful life. We're committed to maintaining compliance with all federal, state, local, and foreign regulations, including the Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS); the Regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals (REACH); and the Waste Electrical and Electronic Equipment (WEEE) directive. We also remain engaged with our industry to evaluate and prioritize the elimination of other hazardous substances and inform future environmental product compliance requirements.

Supply Chain Management



Juniper's sourcing and supply chains are outsourced to a worldwide network, the key elements of which are comprised of contract manufacturers (CMs), original design manufacturers (ODMs), component suppliers, warehousing and logistic firms,

and recruiting firms. Our CMs and ODMs in all locations are responsible for all phases of manufacturing, from prototypes to full production, and they assist with activities such as material procurement as well.

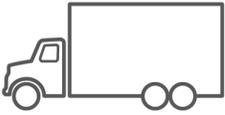
Our customers expect responsible sourcing practices and transparency throughout the entire value chain, communicating these priorities through audits based on principles of the [Joint Audit Cooperation \(JAC\)](#), an association of thirteen telecom operators with the common goal of raising social, environmental, and ethical standards across the ICT supply chain and the RBA Code of Conduct.

Supply Chain Resilience

Juniper's supply chain program is evolving quickly as we work with industry partners, customers, and governments to identify new and emerging risks, and collaborate on best practices to mitigate those risks globally.

In 2018, Juniper implemented a risk analyst network within our Bangalore facility—an internal team that receives and reviews notifications from our monitoring system about events ranging from natural disasters and labor strikes to political upheaval and power outages. The team can assess the situation, communicate in real time with Juniper's operations team, and conduct follow-ups to determine if a supplier is impacted. The ability of Juniper and our suppliers to respond quickly to adverse events has greatly improved both our customers' experience and our resilience in the midst of increasing global instability.

Supply Chain Security



Our strategy regarding supply chain security focuses on brand integrity by taking a life-cycle approach. This requires

life-cycle threat modeling that identifies and proactively addresses potential vulnerabilities, from product development through production, to shipping and warehousing, counterfeit prevention, and the introduction of both intentional and unintentional vulnerabilities in our products. By breaking the product lifecycle into smaller and more transparent pieces, each can be analyzed for potential weaknesses and addressed accordingly.

Because we rely on contract and original design manufacturers from around the world, our supply chain integrity program is instrumental to ensuring the integrity of our products and the protection of our partners and customers. Our component traceability systems improve component integrity, prevent the introduction of counterfeit or gray market components, and allow us to conduct failure analysis on products or processes when quality problems arise. These same processes and tools also support Juniper's sustainability and social responsibility objectives.

We work with the United States and other governments around the world to meet and exceed security standards and ward off attempts by adversaries to influence the integrity of our products. We have incorporated Customs-Trade Partnership Against Terrorism (C-TPAT) and

Supplier Excellence Framework

Our Supplier Excellence Framework is designed to set clear expectations for the nine metrics we use to monitor and manage our suppliers: quality; account support; service; delivery lead time; compliance, sustainability, and risk; measurable execution; competitiveness; speed and agility; and innovation. The goal is to create productive, long-term relationships that align with



Authorized Economic Operator (AEO) standards and security requirements to support the U.S. Government's and European Union's efforts to improve the security of private companies' supply chains and cargo movement. These efforts also enhance national security by protecting import supply chains into the U.S. and European countries.

our vision, values, and business objectives. The nine categories give suppliers direction and incentive about ways to improve their processes in order to grow their business with Juniper.

Business Continuity Maturity Matrix

Juniper ranks and tracks supplier performance along a continuum toward world class. In the area of business continuity, Juniper measures suppliers in four areas:

- Management commitment to a business continuity program (BCP)
- BCP readiness in production, key personnel, and test equipment
- Selection and readiness of alternative locations
- BCP structure, documentation, and training

Environmental Sustainability



Our Vision of Success:

Juniper's vision is to maintain our culture of environmental stewardship, starting by making our facilities less resource intensive, more cost efficient, and, ultimately, more sustainable for the long term. We also recognize that our greatest opportunity for positive environmental impact comes through our products; that's why designing for sustainability at every stage of a product's lifecycle is important to us. By innovating networking solutions that enable the world to become more connected, we make it more sustainable.

What We're Doing:

In this section, we'll talk about a variety of initiatives we have implemented to reduce our energy consumption, resource use, and carbon footprint, as well as how we are considering new opportunities to reduce our products' impact on the environment by improving efficiencies at every stage of the life cycle.

In This Section:

Operational Footprint

Energy Management

Greenhouse Gas Emissions

Water and Wastewater Management

Product Sustainability

Sustainable Design

Lifecycle Management

Environmental Sustainability

Operational Footprint

In order to make our facilities less resource intensive, more cost efficient, and ultimately more sustainable, we are constantly optimizing our sustainability mindset and practices, looking for new ways to collaborate with business partners and industry experts on cutting-edge solutions that address these goals.

We apply this sustainability mindset to our operations in order to identify opportunities that help us reduce our energy usage, greenhouse gas (GHG) emissions, waste to landfill, and water usage. To ensure that we are advancing our sustainability performance, we use data management systems that allow us to accurately and efficiently collect data in key impact areas. We also participate in the [CDP](#) annual reporting process, making our energy usage, GHG emissions, and water usage data publicly available.

Energy Management



Because they account for 85% of our global energy usage, we've taken our greatest strides in energy efficiency by

optimizing the R&D and Go to Market (GTM) lab environments housed within our operating facilities worldwide. We started by consolidating lab operations in Sunnyvale into a more efficient

location, and then proceeded to improve on this by relocating labs to a newly opened data center in Quincy, Washington (Geo-DC), where the majority of the energy supply is generated through hydroelectric power. In 2018, we completed this migration, and were able to close two operating buildings based in Sunnyvale. These closed buildings utilized older and less efficient cooling infrastructure compared to our new data center. Finally, in the process of migrating to our new data center, we also took reexamined the devices that were being deployed in our labs – this resulted in our decision to consolidate and retire less efficient devices, reducing energy use an additional 15%.

In a similar effort to mitigate the effects of energy consumption in our Bangalore labs, we continue to operate in the India Excellence Center (IEC), which features a high-efficiency mechanical and electrical infrastructure.

Around the world, we've also been working to reduce energy consumption by using increasingly more sophisticated monitoring and management. For instance, our Automated Management Tool (AMT) has shown great promise for saving considerable energy in our labs. While the tool initially allowed lab users to override its recommendations, diminishing the results compared to potential savings, an aggressive education program, backed by a high level of

executive support, was launched to reshape behavioral energy efficiency among lab equipment users. Over a period of six to eight months, we gathered and mapped usage data for more than 20,000 pieces of equipment and used this information to create new policies. The results speak for themselves: after implementing the new policies in August 2018, energy consumption dropped for the first time since 2014. By coupling technology and infrastructure solutions with policy and behavior-related tools, we are making important progress toward reducing energy consumption.

Buildings Designed for Energy Efficiency



Our focus on building design for sustainability has guided our decisions around the world. From our 635,000 square foot corporate campus in Sunnyvale, California to our Bangalore IEC campus in

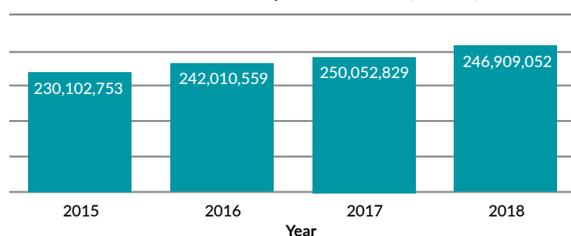
India, we have integrated [LEED](#) principles of energy efficient systems and environmentally-preferred materials, achieving both Platinum and Gold LEED certifications. Our newest building in Sunnyvale is also LEED certified and operates without a chiller, using outdoor air most of the year to achieve significant gains in energy efficiency.

Juniper’s building operations, from lighting controls to cooling systems in the labs, are designed and managed to operate efficiently and effectively.

Juniper’s Overall Energy Footprint

In order to report our total electricity consumption, we focus on facilities with R&D labs, server labs, and customer support labs. Since our measurements have shown that locations with labs account for 80%-90% of total aggregate global energy consumption, we do not include Juniper leased and owned spaces without labs in our energy footprint calculations.

Total Electricity Consumed (MWh)



*Does not include diesel or natural gas consumption from our Sunnyvale site

Alternative Power Sources

Juniper has implemented several strategic initiatives to reduce the company’s overall environmental impact due to energy consumption, including the use of renewable and low-carbon energy sources.

Hydropower

In May 2015, Juniper’s board of directors approved a proposal to build a 1,500-rack data center-style lab in a secure, low-cost location to consolidate labs from across the U.S. The Geo-DC



facility, opened in the second quarter of 2016, houses IT and engineering infrastructure, labs operated by Global Lab Operations, our Customer Support Services Ultra Lab, and other go-to-market rack labs.

Quincy, Washington, the location of the new facility, was chosen for several reasons. Most importantly, 78% of the electricity is generated by hydropower. The Geo-DC was awarded the [U.S. Environmental Protection Agency’s 2017 Energy Star certification](#) with a score of 100 points, the highest possible score.

Phase I of the Geo-DC project was executed successfully in 2016; Phases II and III were completed in 2018. The migration to Geo-DC has resulted in a cumulative energy savings of more than \$9 million since 2016.

Solar and Fuel Cells

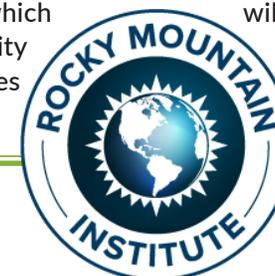
Our Sunnyvale campus deploys a variety of renewable and low carbon energy options. To reduce demand on the grid, we invested in onsite photovoltaic and fuel cell systems that allowed the Sunnyvale campus to generate 521 MWh of energy in 2018 and 497 MWh of energy in 2017,

which represented approximately 11% and 9% our Sunnyvale campus’s total electricity consumption respectively. A small 30 kW co-generation system heats water for showers and the cafeteria.

In Bangalore, we executed a power purchase agreement with two suppliers of solar power. Under this program, we have increased Bangalore’s total solar energy consumption from 45% to 75% as of 2018. Using renewable energy instead of conventional power will greatly reduce greenhouse gas emissions. Our 10-year agreement for this solar energy will last through 2026. Since Bangalore is responsible for our single largest energy demand at an average load of 9.5 MW, these environmental and financial benefits have significant scale.

Membership with Rocky Mountain Institute

In 2018, Juniper became a member of the [Rocky Mountain Institute](#) to more closely monitor and evaluate risks in the renewable energy market, both in the U.S. and globally. As an energy leader in Silicon Valley, it is important for us to be fully engaged and aware of changes in the energy market. Our partnership increases the trend of global corporate buyers in the renewable energy market, which will improve the accessibility of renewables in years to come.



Greenhouse Gas Emissions

Juniper has invested in the infrastructure and systems required to inventory and measure our carbon footprint on a global basis. Our goals are twofold: to credibly account for our carbon emissions, and to significantly reduce the carbon footprint of not only our own operations, but those of our customers as well. Although it's an exceedingly complex, multi-year process, we're measuring the energy efficiency of each of our products, as well as the carbon emissions inherent in their production, delivery, and implementation. We continually look for ways to reduce our overall footprint and energy consumption while meeting the growing demands on the new network.

Juniper has worked with the [CDP](#) which advises businesses on how to improve sustainability practices through the collection of self-reported data on climate change, water, and forest risk, for more than a decade, and we have been reporting to them since 2004. In that time, CDP has helped us identify better ways to measure and manage our GHG footprint and improve energy efficiency. For comprehensive reports on Juniper's climate change and GHG management program, please refer to [the CDP disclosures](#). We recognize that opportunities to reduce carbon emissions exist in our own facilities and operations, in those of our suppliers, and through the design of the products we sell.

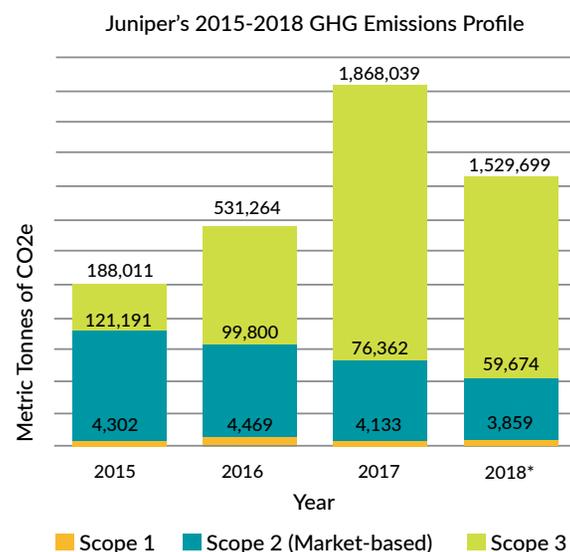
Juniper's GHG Emissions Profile

Direct (Scope 1) emissions from operations that are owned or controlled by the organization.

Energy Indirect (Scope 2) emissions result from the generation of purchased or acquired electricity, heating, cooling, and steam consumed within the organization.

Other Indirect (Scope 3) emissions are all indirect emissions (not included in Scope 2) that occur outside of the organization, including both upstream and downstream emissions.

The reported GHG emissions inventory scope includes only facilities with R&D labs, server labs, and customer support labs.



Note: Calculations performed using the World Resources Institute GHG Protocol.

*Calculations for 2018 have not been externally verified

Scope 1 and Scope 2 GHG Emissions

Our scope for measuring and reporting GHG emissions includes all of our facilities with labs, which accounts for approximately 85% of Juniper's total energy consumption. In 2016, we established an absolute target to reduce our Scope 1 and Scope 2 (market-based) GHG emissions by 5% by 2020 (against 2011 baseline of 92,864 metric tonnes of CO₂e).

We recognize that a large portion of Juniper's emissions are Scope 2: produced from electricity purchased to power our operations. The investments we have made—and continue to make—in energy efficiency, process optimization measures, and clean energy procurement are mostly aimed at reducing our Scope 2 emissions. We remain on track to meet our GHG emissions reduction goal by focusing on the Sunnyvale and Bangalore campuses, our two largest facilities based on square footage, employee headcount, and energy consumption.

For instance, the Automated Power Management Tool we implemented in our labs is estimated to save 7,500 metric tonnes of CO₂e annually, while in 2017, the onsite Bloom fuel cell system supporting the Sunnyvale headquarter campus underwent a \$1.2 million upgrade to improve the system's output, contributing to an emissions reduction of 2,700 metric tonnes of CO₂e annually. In Bangalore, we increased our solar power usage, fulfilling approximately 50% of the site's energy demand. These initiatives helped decrease total global Scope 1 and 2 emissions by 30% in 2017.

Scope 3 GHG Emissions

The biggest impact to our overall carbon footprint comes from Scope 3 emissions—activities outside of our direct operations such as business travel, employee commuting, our product distribution, and emissions resulting from our suppliers' operations.

We have made it clear to our suppliers that we expect them to measure and disclose their GHG emissions. A number of our suppliers have started doing this in recent years, making it possible for Juniper to include their emissions in our Scope 3 disclosures, specifically associated with purchased goods and services. We collect energy and emissions data from our direct material suppliers, including contract manufacturing partners, original design manufacturing partners, and component suppliers through the [CDP Supply Chain disclosure process](#). In 2018, 72% of suppliers contacted by Juniper responded to our request for climate change information, with 62% of them reporting active emissions reduction targets. The responding suppliers allocated 1,732,495 metric tonnes of CO₂e and 1,491,063 metric tonnes of CO₂e to Juniper in 2017 and 2018 respectively—a dramatic improvement over calendar year 2015, in which 51% of responding suppliers allocated 51,751 metric tonnes of CO₂e. In 2019, we our goal is to increase supplier participation in CDP and achieve an overall average supplier score of “B” on the climate change questionnaire. We expect that through better measurement and disclosure, our suppliers will identify opportunities to reduce their emissions, share collaborative opportunities, and, ultimately, manage the overall emissions

footprint across the entire value chain. These goals are integrated into the new supplier scorecard, business reviews, and the supplier vetting process to ensure that we are partnering with suppliers who share our goals and will work collaboratively to mitigate risks and secure opportunities.

CDP Carbon and Water Disclosures

For more than a decade, we have voluntarily disclosed our annual climate and water impacts through the CDP, which is a global standardized mechanism by which companies report their GHG emissions and water consumption to institutional investors and customers. Our climate change and water disclosures can be viewed [here](#).

Our supply chain activities are one of the largest contributors to our total environmental footprint. As an extension of our own measurement and reporting on GHG emissions and water usage, Juniper requests that 100% of our CMs and ODMs, and those suppliers representing at least 80% of our consolidated total direct expenditure, measure, manage, and reduce their carbon emissions and water consumption and disclose that information through the CDP Supply Chain program. We were a founding member of the CDP's Supply Chain program and have built a strong supplier engagement platform in order to drive disclosure and action on climate- and water-related risks. In 2018, we were proud to be recognized by CDP for our leadership in supplier engagement on climate change.

Juniper Recognized as Supplier Engagement Leader and Legacy Responder by CDP



In 2018, CDP, the non-profit global environmental disclosure platform, recognized Juniper on its third Supplier Engagement Rating leader board. The leader board comprises those companies from around the world that have been specifically recognized for their efforts and actions to manage carbon emissions and address climate-related issues across their supply chains in the past CDP reporting year.

CDP also honored Juniper for reporting our climate change and water security data for more than 10 years and five years, respectively, demonstrating our longtime commitment to environmental stewardship and transparency.

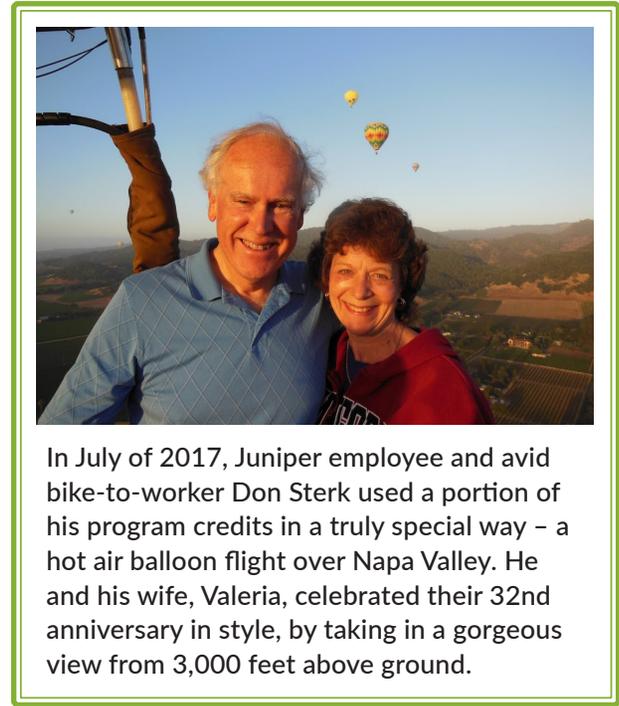
Employee Commuting

In 2016, for the first time, we established a Scope 3 emissions target focused on employee commute, a 20% reduction target by 2025, based on our 2015 baseline (22,247 metric tonnes of CO2e). We are on pace to meet our GHG emissions reduction goal by focusing on eliminating single-passenger auto trips.

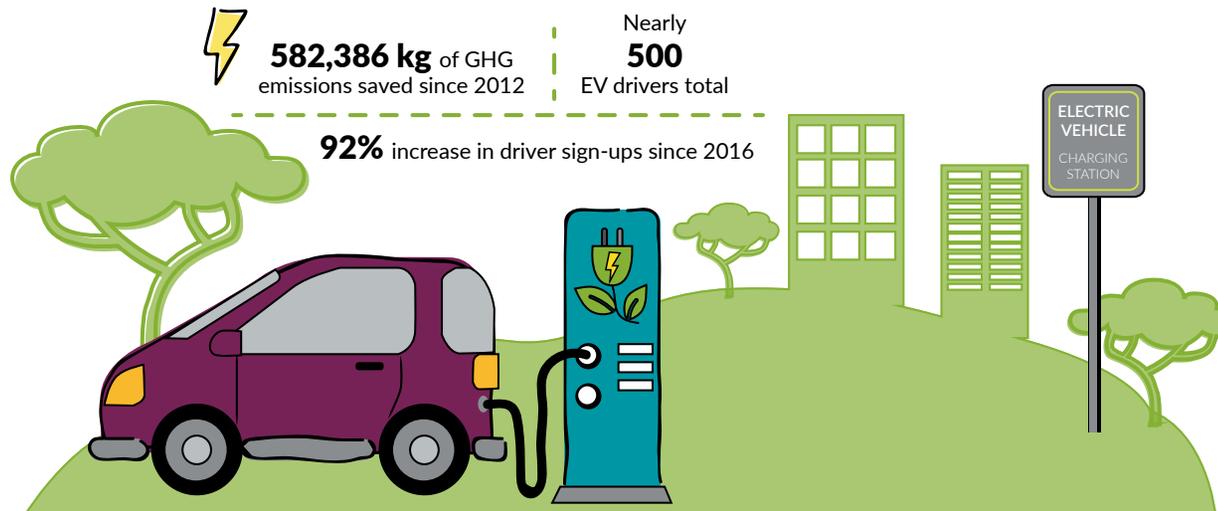
Each year, Juniper surveys employees on their commuting methods and, through the Juniper Networks Employee Transportation Program, encourages them to use alternative methods of transit to work. To achieve our goal of reducing the number of single-passenger auto trips and their associated Scope 3 emissions, Juniper provides resources and incentives for employees

to participate in alternative transport methods. These efforts—such as our Bike to Work program and the expansion of electric vehicle (EV) charging stations—have succeeded in getting many employees to adopt more environmentally friendly modes of transport.

Our Bike to Work program is a particularly noteworthy success. In 2018, we expanded our incentives for the program by offering employees an increased dollar amount and more flexibility with the monetary rewards they receive for biking to work. We also provide non-monetary incentives, including secured bicycle storage lockers and emergency bicycle repair support, and recently expanded our online merchandise options to include more cycling apparel and



Electric Vehicle Use at Juniper



gear. These efforts have driven greater employee participation over the past two years, resulting in a 17% increase in enrollments over the 2015-2016 disclosure cycle.

Juniper also provides non-monetary incentives for those who drive to work in sustainable energy vehicles, including preferred parking spaces for carpools and electric vehicles, mobile fueling and rideshare services, and onsite EV charging stations.

Water and Wastewater Management



We believe in protecting the earth's most valuable resource, and we are committed to practicing responsible water

consumption and stewardship. Juniper's comprehensive [Environmental, Health, Safety, and Security Policy](#) outlines our goals for resource use and conservation. Our operational goal is to use water as efficiently as possible and to use reclaimed water wherever possible. To demonstrate this commitment and help achieve our goal, we have also adopted the [RBA Code of Conduct](#), which outlines standards for water use, discharge, and conservation.

We practice responsible water and wastewater management at all of our facilities. Our LEED-certified buildings in Sunnyvale are equipped with low-flow fixtures. Our investments in water-efficient fixtures in restrooms have resulted in a 30% reduction in water usage compared to typical office buildings. Water used for our toilets, urinals, and landscaping is all reclaimed—former wastewater from a separate local renewable supply that does not deplete the area's limited potable water supply.

Additionally, we have partnered with Waterfluence, a local landscape efficiency consultant, to measure water usage for buildings in our Sunnyvale headquarters. Waterfluence provides us with information about our water consumption, which helps our landscaping vendor be as water-efficient as possible. Our landscaping was

specifically designed to maximize water efficiency; approximately 55% of the plants on campus are drought-tolerant species, while drip irrigation systems feed nearly all areas except the turf, which is supplied by an efficient rotor-style irrigation wherever possible.

Juniper's water efficiency and conservation practices were critical to achieving LEED Platinum and Gold certifications for our Sunnyvale campus. These practices also qualified us for the [Bay Area Green Business certification](#). Independent third-party certifications, like LEED, ISO 14001, and Bay Area Green Business, confirm our commitment to conservation and responsible corporate citizenship to interested stakeholders, including customers, employees, investors, and regulators.

We gather data annually from our major facilities (those with more than 100 employees) in China, India, Singapore, Japan, The Netherlands, and the U.S., where the primary potable water uses are for canteen and breakroom operations and cooling systems. Due to continuous improvements in the collection and tracking of water data for our in-scope facilities, we are able to provide a more comprehensive profile of water withdrawal, discharge, and consumption. Additionally, in 2017, we expanded facilities in certain locations within the operational boundary.

	2016	2017	2018
Water Use (in megaliters)	790	850	797

For comprehensive reports on Juniper's water management program, please refer to the [CDP](#) disclosures.

Product Sustainability

At Juniper, we design, develop, and sell routing, switching, and security products and services for high-performance networks. We view the sustainability of our product offering in two primary ways: that our products be designed with sustainability in mind, and that we consider the entire lifecycle of our products. Our sustainable design priorities include materials innovation, recyclability, and energy efficiency. Our lifecycle management approach considers aspects like logistics and flexibility of use and re-use.

Sustainable Design

Eco-Design Program

Our product designers and suppliers identify, prioritize, and recommend environmental improvements through a company-wide eco-design program based on our new product introduction (NPI) process. The eco-design guidelines are derived from evolving customer expectations and regulatory requirements and influenced by the expertise of our employees and suppliers. Furthermore, life-cycle assessment (LCA) is used to quantify the environmental impacts of a product across the entire life cycle, from design to end-of-life (EOL) disposal.

The priorities of the Juniper Networks eco-design initiative include:

Materials Innovation: Reducing the amount of material used in our products and developing materials that have less environmental impact and/or more value at their end of life.

Recyclability: Designing products that are easier to upgrade, reuse, and/or recycle.

Energy Efficiency: Reducing the energy needed to manufacture and/or use our products.

Designing for: Materials Innovation



Whenever possible, we take the opportunity to specify materials in our products that have less of an impact on the environment. For example, by telling our suppliers that we prefer to use recycled copper and aluminum

content, we are empowering their procurement decisions which create demand for less intensive mining and production activities upstream in the value chain.

We're also leading efforts to reduce the impact of the packaging materials we use to safely transport our products. By designing more effective packaging, we reduce waste related to damaged equipment. By prioritizing lighter, recycled/recyclable, and degradable packaging materials, we're also continually focused on reducing our impact on logistics and shipping.

Designing for: Recyclability

While the preferred method of reducing the environmental impact of products is to extend their useful lives (discussed below in Lifecycle Management), we recognize the importance of making Juniper products easier to recycle when they can no longer be deployed.

Juniper's modular product design makes dismantling and repair easier, and our parts are labeled to encourage recycling. Our regional

Global Return Centers (for product repair) limit travel cost and time, logistic miles, and emissions. For components and products that can no longer be used, we partner with an industry leader in responsible electronics recycling. Our partner promotes reuse, encourages reduction of waste, and recycles non-reusable materials, keeping data security top-of-mind throughout. With this approach, the materials in our products can efficiently reenter the commodity loop for our business, or into another value chain.

Designing for: Energy Efficiency

The Information Communication Technology (ICT) sector accounts for approximately 2% of all GHG emissions, mostly due to energy-intensive data centers. By increasing energy efficiency in our sector and enabling efficiencies in other industries, the Global e-Sustainability Initiative (GeSI) has identified the potential for the ICT sector to drive a 20% reduction in global GHG emissions by 2030, which would hold emissions at 2015 levels.

As the platform for ICT-enabled solutions, the networks that Juniper builds are a means for enabling growth and innovation while also serving as a source of crucial energy efficiencies. It's the reason energy efficiency is central to our design and development approach.

As a member of the Energy Consumption Rating Initiative, Juniper has played an active role in developing specifications for rating energy consumption in network and telecom devices. Juniper is also an active member of the Alliance for Telecommunications Industry Solutions STEP Committee, which created a methodology for

measuring and reporting wireless base-station standards.

Every Juniper product is measured in throughput per watt, and we've managed to reduce the watts per bandwidth with each product iteration. Additionally, Juniper products are independently tested by a third party for compliance with the following energy-efficiency standards:

AT&T ATT-TP-76200, Issue 20, June 2016

ECR Draft 3.0.1, December 2010

EPA Energy Star

ETSI ES 203 136 v1.1.1, May 2013

Verizon VZ.TPR.9205, Issue 6, March 2016

Energy consumption specifications are made available on product technical sheets, another tool which both helps customers focus on their energy goals and helps Juniper stay in front of energy efficiency and product labeling standards.

Lifecycle Management

Juniper's approach to designing, producing, and deploying products is focused on the breadth of the lifecycle to minimize waste and inefficiencies at each step of the process. We design our products for longevity, flexibility, and interoperability. Juniper products are also highly scalable to meet demands in an environment of rapid change and growth, which means we can adapt to our customers' changing needs without requiring equipment replacement. We focus on lowering total cost of ownership by improving product energy efficiency, reducing operational expenses, and offering cloud-based solutions that allow our customers to

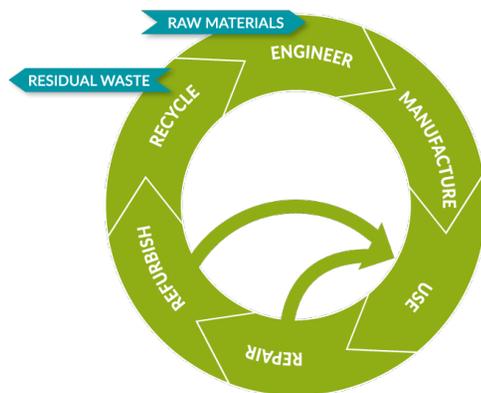
access applications and services without buying and managing on-premises infrastructure. We also offer leasing models that contribute to a shared economy.

Many of Juniper's routing, switching, and security solutions are built to work with other vendor systems, to be scalable in order to meet the growing demand of terabytes per second of system throughput, and to be deployed in a variety of different network designs and fabrics. This aspect of our design process creates the flexibility required to extend product longevity and reduce the need to replace equipment.

Warranties and support extend the useful life of a product and ensure that it runs efficiently.

When product demand shifts, we make sure those products can still be put to good use. The Juniper Certified Pre-Owned Program allows our customers to extend the life of their existing Juniper architecture by offering end-of-life hardware products with manufacturer support and warranty.

Juniper's Circular Economy Model



Circular Economy for Environmental Sustainability

By removing complexity and focusing on the critical processes at every stage of our products' life cycle, we can innovate and rethink our ways of interacting with Juniper customers and partners. Doing so helps us generate value for our stakeholders and for the environment.

Our circular economy model includes six stages, described below:

Engineer: We design products with sustainability in mind, so they are more environmentally responsible, more reliable, and longer lived.

Manufacture: We carefully select suppliers and business partners who share our values and commitment to environmental sustainability.

Use: Our products are built for flexibility, interoperability, and scalability, ensuring long-time customer value.

Repair: Our modular design makes our products easy to dismantle and repair.

Refurbish: The Juniper Certified Pre-Owned Program lets our customers extend the life of their existing Juniper architecture.

Recycle: Juniper designs products to be easily dismantled, and our parts are labeled to encourage recycling. For components and products that can no longer be used, Juniper partners with an industry leader in responsible electronics recycling.

Details of our circular economy model are available on our [website](#).

Product Packaging

Juniper is committed to playing a global leadership role in green packaging, and through collaboration and innovation in supplier partnerships, we've achieved breakthroughs in our sustainable packaging protocols. We know that leaders never stop striving to improve performance and push the limits. Our Packaging Engineering team has been working for years to advance our thinking about packaging efficiencies, driving even greater innovations in the size, weight, and material of packaging solutions.

For example, we've been using 100% recycled polyethylene Reflex cushions on many of our products for more than 10 years and encourage the increased use of these cushions in our shipments. In the last decade, Juniper has used more than 1.5 million pounds of recycled polyethylene (PE) in our packaging, an amount that is growing exponentially every year. In 2018, Juniper was recognized by the World Packaging Organisation for our innovative use of these Reflex cushions and was awarded the Worldstar Packaging Award.



Juniper is also the first-ever company to use packaging cushions made from 100% recycled ocean-bound plastic. We pride ourselves in being a pioneer in using innovative materials that prevent plastic from entering our oceans, beaches, rivers, and waterways.

In 2018, we implemented two new innovative packaging techniques with the aim of reducing the use of traditional foam materials. These innovations include suspension-style packaging and inflatables, which are currently under evaluation for continued use and expansion.

Through our leadership in this space, we have shown that it is possible, effective, and economical to reduce the size and weight of packaging while retaining the same performance, and we choose the most sustainable materials whenever possible. We're looking to the future with materials like 100% recycled boxes and folding cartons, strawboard, 65%-100% recycled PE foam, and other green packaging materials to replace traditional cushioning and structural options.

Driving Innovation for Environmental Sustainability: Business Partnerships for Positive Change

At Juniper, we recognize the power of partnership and the importance of building trust. We know that without those two elements, our company cannot succeed at finding innovative solutions to business, social, or environmental challenges. For more than 10 years, Juniper and Reflex Packaging have worked together to push the envelope of innovation for sustainable packaging. We're incredibly proud of the work our team has done to develop new materials and packaging styles, divert plastic from our oceans and waterways, and more than triple our use of recycled polyethylene since 2016.

We know that the collaboration, trust, and engagement we have with Reflex has enabled Juniper to be a pioneer of sustainable packaging, and the first company to use 100% ocean-bound plastic cushions.

In 2018, Juniper highlighted this successful partnership with Reflex at our annual Supplier Summit, recognizing them as the Top Sustainability Supplier for their innovative packaging work.



“We are committed to being a global leader in green packaging, including the use of unique materials such as ocean-bound plastic. When it came to a decision about what percentage of ocean-bound plastic to use in our cushions, cost was not really our first consideration. In fact, compared to cushions made with the recycled plastic we normally use, the cost increase was very modest and neutral compared to virgin plastic materials. It was a small price to pay when we considered the additional environmental benefit.”

- Brad Hannula, Juniper Packaging Engineering Manager

People and Communities



Our Vision of Success:

From our direct employees to each worker throughout our value chain, we invest in our people. Our vision is to create an inclusive, authentic community that inspires collaboration, integrity, and innovation. By cultivating a culture of integrity in our supply chain, our partners become extensions of our efforts to meet big, bold challenges that make a meaningful difference.

What We're Doing:

We are committed to ensuring that each employee be treated with integrity and respect. In this section, we discuss what we're doing to build a more inclusive and diverse community, how we invest in our employees, and how we ensure ethical supply chain management.

In This Section:

Our Employees

- Employee Engagement

- Employee Wellness

- Diversity and Inclusion

Our Partners in the Value Chain

- Responsible Materials Sourcing

- Labor Practices and Human Rights

Our Communities

- Community Engagement

People and Communities

Our Employees

At Juniper, we believe in the power of the network to connect lives in previously impossible ways—it's what we mean when we talk about building more than a network. Our vision is to create an inclusive, authentic community in which our employees are inspired to collaborate and innovate, and it's our priority to treat each employee with integrity and respect. Every day, we strive to create a world-class employee experience—one that offers opportunity for personal and professional growth, enables work-life balance, and aligns closely with the core values embodied in The Juniper Way. That's our vision, and that's our culture.

Employee Engagement

Professional Development



At Juniper, professional development means more than just performance metrics and measurable career progression. This belief is reflected in the way we enable our employees to be authentic and thrive. Rather than relying on traditional written reviews and ratings, we apply an intuitive and holistic approach to professional development through a platform we call Talent Matters.

Talent Matters fosters an open and interactive culture between employees and their management teams, where individual needs are recognized and met, and company goals are supported. To facilitate meaningful interactions, managers are encouraged to schedule a semi-annual "Conversation Day" with their direct reports and use the Talent Matters Framework to talk about the connection between the individual's work and the company's vision and values. These "Conversation Days" identify opportunities for the company to better support employees and

set goals for professional growth. They have been instrumental in fostering a culture of openness, collaboration, and purpose within our company. They have been so successful that, in 2019, we will explore increasing their frequency to a quarterly basis.

Training and Development

The personal and professional growth of our employees is a priority for us, and one that is reflected in our training and development programs. Our goal is to connect with our leaders

Dimensions of the Talent Matters Framework:

In the eight years since we launched the Talent Matters platform back in 2010, a growing number of employees have advanced their competencies within the four dimensions of our talent framework:

"Career" - The degree to which a colleague's professional interests are aligned with Juniper's vision and to which they are highly motivated by the purpose of his or her work.

"Capabilities" - The degree to which each colleague has, applies, and grows the capabilities required for success in his or her role and to scale for the future.

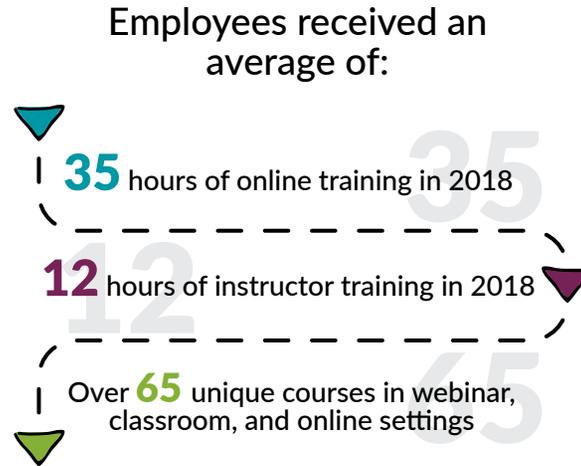
"Connections" - The degree to which each colleague creates and fosters collaborative, productive, and energy-generating relationships modeling our value system—the Juniper Way.

"Contributions" - The degree to which each colleague makes progress against goals relative to expectations, enabling Juniper to "Win in the Marketplace."

and colleagues around the globe to offer quality programs in all locations, departments, and positions. In the last two years, Juniper has worked hard to ensure our training and development programs align with the interests and culture of our employees. After receiving and taking into account valuable feedback from our employees, we developed more courses focused on building personal capabilities as well as skill development. In 2018, we consolidated our training platforms to a single content provider, allowing us to critically review our learning portfolio and provide the most effective programs possible.

Employee training is one way in which we drive our mission to create a diverse and inclusive environment where employees are able to thrive as their most authentic selves. We work consistently with our training partners to ensure our course offerings promote respect and awareness, such as Communicating Across Cultures, Unconscious Bias, and Emotional Intelligence. Each year, Juniper employees also receive job-specific trainings on topics including human rights, environmental performance, compliance with the Juniper Worldwide Code of Business Conduct, and other compliance and industry-specific subjects.

Additionally, to encourage the lifelong learning of our employees, Juniper provides tuition assistance and funding for leadership courses.



Employee Wellness

Global Health, Safety, and Security



Juniper delivers the greatest net impact for all by operating as a responsible corporate citizen, striving for excellence in global environmental, health, safety, and security management.

Juniper's [Environmental, Health, Safety, and Security Policy](#) articulates our commitment to maintaining healthy, safe, and secure working conditions—a workplace where our employees are treated with respect and dignity—and ensuring that our products and operations are environmentally responsible.

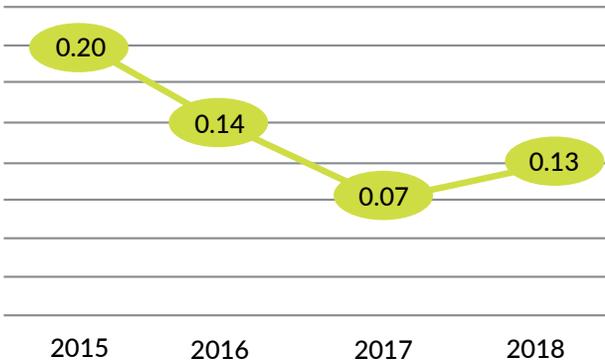
We use a comprehensive global environmental, health, safety, and security management system as the framework to reduce and eliminate potential hazards, risks, and negative impacts to our employees, communities, and the environment. It is developed and implemented in conformance with the OHSAS 18001 and ISO 14001 standards. Our Sunnyvale facility maintains a certified [ISO 14001](#) system, and the Amsterdam facility is ISO 14001 and [OHSAS 18001](#) certified. Additionally, we comply with all local rules and regulations, including the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) requirements.

The Corporate Environmental, Health, Safety, and Security Department (EHSS) is responsible for the delivery, management, and monitoring of the performance of our EHSS management system. Juniper has formal safety committees

in all locations with a headcount of over 50 and in locations required by law, representing nearly 80% of our office-based workforce. In addition, the EHSS Department is authorized to conduct corporate environmental, health, safety, and security investigations on behalf of our management and report investigative findings and recommendations to management personnel.

An important metric we use to track performance on workplace safety is our Total Global Recordable Incident Rate. There has not been a fatality or a significant fine for noncompliance with laws and regulations relating to health and safety. All injuries and incidents, including near-misses, are investigated and corrected to prevent recurrence.

Total Global Recordable Incident Rate (number of recordable incidents per 100 employees)*



*Numbers rounded to two decimal places

Employee Benefits and Work-Life Balance

Juniper is committed to providing competitive, employee-friendly benefits, with the goal of promoting holistic wellness. In an effort to give our employees the ability to work and thrive in ways that enable them to perform their best, we have developed a Flexible Work Policy. We care most about the groundbreaking work our employees do—not necessarily where they do it. This program allows Juniper to find and retain the best talent regardless of where they live or their current life situations. We do not limit ourselves to individuals who must relocate or work in a physical Juniper office; instead, we strive to grow a talented team that can focus on delivering the next generation of networking connectivity.

In addition to offering a competitive benefits package designed to meet employee needs, we seek to understand what our employees' value and are passionate about. We have conducted annual surveys to help us assess and prioritize topics that are most critical to our employees. These surveys have led to improvements in our total rewards package, including 16-week paid parental leave and access to the same level of benefits for both full- and part-time employees. We will continue to seek our employees' feedback to continue the evolution of our total rewards package. In 2018, we developed "people imperatives" for our future employee surveys that will hold our leadership accountable for prioritizing employee satisfaction and drive for better data to foster continuous improvement.

Employee Experience and Workplace Environment

We think of our company as a community, and we strive to create an environment where our employees feel inspired to solve the world's most complex problems.

We strive to provide an experience that connects our individual employees to a larger societal purpose. We work to achieve this vision through community spacemaking and designing our offices with collaboration and innovation in mind.

From our office space to our fitness centers, our book fairs to our game rooms, our campuses are designed to foster community, communication, and collaboration, so that all of our employees around the globe feel inspired to find the new best solution.



University Talent Program

Each year, Juniper welcomes approximately 250 interns globally into our University Talent Program, through which we bring together the most inventive minds from around the world to help find the next generation of talent. From Day One, our interns roll up their sleeves and immerse themselves in projects that help solve customer problems, change the way people live, and make the world a better place. We offer mentorship from highly experienced people who inspire and challenge our interns, enabling them to learn from some of the brightest minds in the networking industry, while making sure they have fun and feel supported every step of the way. That's our culture. That's [life at Juniper](#).



Internet Day at Juniper: A Day of Technology, Education, and Community

Internet Day is an event designed and facilitated by Juniper interns that aims to support the mission of the Juniper Networks Foundation Fund to lift up and empower underrepresented K-12 students through STEM education and immersion. In the summer of 2018, we welcomed 3rd, 4th, and 5th grade students from East Palo Alto onto our Sunnyvale campus to learn about the internet in an exploratory and interactive environment. Our interns taught the students the principles of coding through a series of creative dance moves and helped them learn about internet safety with a rap-lyric play to show them that creativity and engineering can happen anywhere.



*“From my first day at Juniper, I could tell that my team not only valued my work but **valued me as a person**. I am thankful for the experience to have felt part of a community and family during a short summer experience.”*

– Sabrina Korman, Sustainability Intern, 2018

Diversity and Inclusion

We're on a mission to create change and build a more inclusive and diverse community.

As a company committed to innovation and representing our diversity in a myriad of ways—including race, ethnicity, age, background, perspectives, tenure, work style and sexual orientation—diversity is a competitive asset that we want to amplify at Juniper, because we believe our differences will drive our success. The true potential of the network can only be realized by connecting people of all backgrounds, life experiences, and approaches to problem solving.

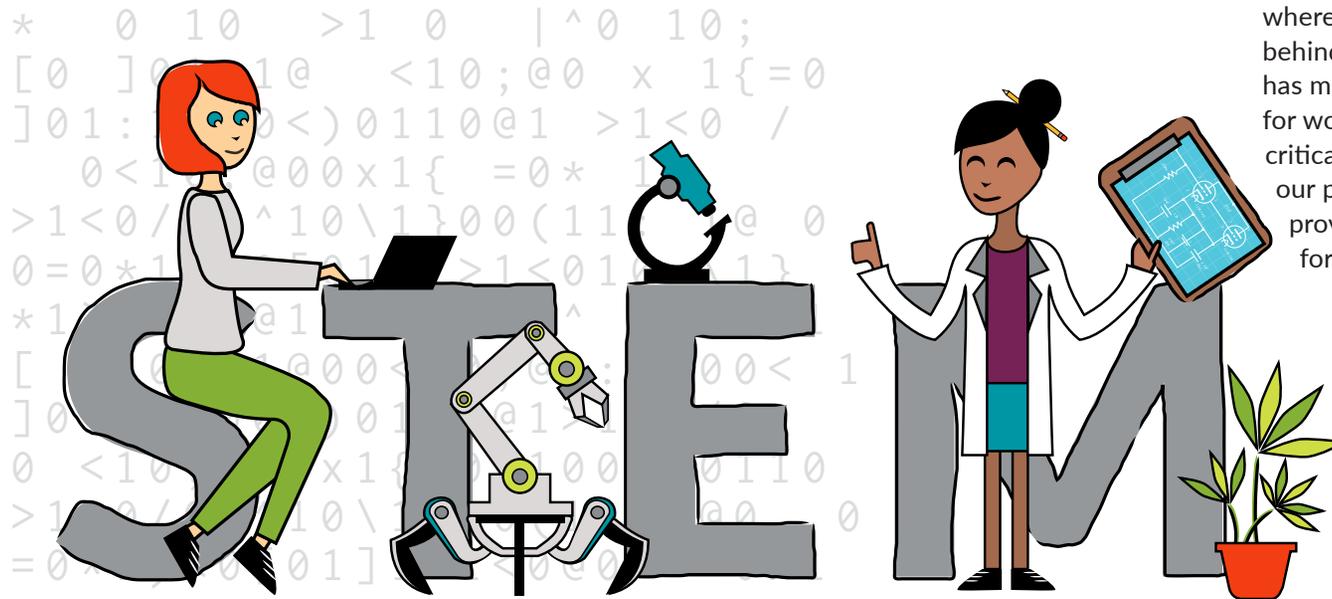
Creating a highly diverse and inclusive workplace, where everyone is empowered to do their best work, starts with transparency and accountability.

Our commitment to this work starts at our board of directors and carries through to our CEO staff and beyond. We have established a new, rigorous governance model that includes important dashboard data that we track quarterly, enabling us to monitor our progress against our stated strategy.

Our Diversity and Inclusion strategy focuses on enhancing our culture of inclusion and diversifying our talent base. Our initiatives in 2018 included training courses and workshops like Communicating Across Cultures, Unconscious Bias, and Emotional Intelligence; a commitment to pay parity; and a robust communications program. To diversify our talent base, we're refining our recruiting practices and investing in cultivating our internal talent.

In 2018, we published our inaugural annual diversity update to share [our data](#) transparently, communicate our inclusion and diversity strategy, and to set an example for driving positive change. We acknowledge our challenges and are clear about where we plan to focus our efforts to drive improvement. We plan to provide updates on our inclusion and diversity strategy and our progress in our annual CCS report and on our [website](#).

We believe it's our responsibility as innovators to support programs that create a network of opportunities for the world's next generation of engineers, critical thinkers, and thought leaders. Juniper has made it an important part of our recruiting and citizenship strategy to increase representation of women and communities of color within our science-, technology-, engineering- and math-intensive (STEM) industry, where such representation has historically lagged behind other disciplines. Specifically, Juniper has made supporting K-12 STEM education for women and underserved minorities a critical component of both our diversity and our philanthropy strategies. In 2018, Juniper provided over \$110,000 dollars (USD) in grants for STEM education for young girls.



Our Partners in the Value Chain

At Juniper, we promote a culture of integrity and ethics to inspire confidence throughout our ecosystem. We develop trust with our customers, our employees, and our suppliers by being honest, respectful, and reliable in all our business dealings. Through our partnerships with our valued suppliers, we expect and promote responsible business practices throughout the value chain. This is why we have adopted and encourage suppliers to adopt critical corporate social responsibility policies that help ensure working conditions in the electronic industry supply chain are safe and workers are treated with respect and dignity.



Responsible Materials Sourcing

Responsible Sourcing

We recognize that we have both a tremendous opportunity and responsibility to encourage the adoption of more responsible and sustainable business practices among our direct and indirect suppliers. More than 90% of all suppliers are managed through a direct agreement and have been selected using sourcing strategies drafted in coordination with our engineering teams.

Our Supplier Management Program is based on several key elements, including:

Performance Evaluation: Our Supplier Excellence Framework and Business Continuity Maturity Matrix are used to evaluate suppliers. Performance is monitored through verification and audit mechanisms, and results are communicated during business reviews.

Verification and Audit: We conduct assessments and announce onsite audits of our CMs, ODMs, and critical partners to assess and evaluate their performance compared to Juniper standards.

Certification: Each supplier must certify compliance with Juniper's [Business Partner Code of Conduct](#), which addresses important corporate social responsibility standards and is informed by the RBA Code of Conduct and the [Ten Principles of the United Nations Global Compact](#).

Conflict Minerals

At Juniper Networks, we are committed to the proactive elimination of minerals from sources that could support conflict and social, health and safety, and human rights impacts from our products and the supply chain. We believe this cannot be done effectively and efficiently without industry alignment and, therefore, strongly support industry-wide, multi-stakeholder efforts to promote responsible sourcing. Conflict minerals, often referred to as 3TG, include columbite-tantalite (coltan); cassiterite; wolframite; their derivatives tantalum, tin, and tungsten; and gold. They are also defined as minerals that are specifically determined to be financing conflict in the Democratic Republic of the Congo or an adjoining country. For more than seven years, Juniper has been supporting the development of industry tools and programs that facilitate the reporting and collection of due diligence information on the source and chain of custody of 3TG through our membership and participation in the [\(RMI\)](#) and its workgroups.

Given our downstream position in the supply chain, such that we do not have any direct relationships with the smelters or refiners upstream, we rely on our first-tier suppliers to procure materials that go into Juniper routing, switching, and security hardware and to provide information about the sources of 3TG used in the components. We are committed to our continual engagement with our manufacturing partners and first-tier suppliers in order to advance their knowledge and capacity, so they can provide complete and accurate information on the origin



and chain of custody of 3TG used in the products provided to Juniper and source responsibly.

We expect our suppliers to exercise due diligence, source responsibly from certified conflict-free smelters, and support Juniper's compliance obligations, including trade compliance laws and trade restrictions from sanctioned entities and persons. More information on our conflict minerals program is available [here](#).

Labor Practices and Human Rights

Vetting and Monitoring Suppliers

It is important that our suppliers are committed to promoting fair labor practices, upholding ethical human rights standards, and making a positive impact on society. Our vetting process for all new suppliers looks at financials, compliance and risk assessments, and background checks.

We monitor Tier 1 suppliers who represent at least 80% of our direct material expenditure and 100% of our CMs and ODMs to verify their compliance with the [\(RBA\)](#) and the Juniper Business Partner codes of conduct. We also conduct C-TPAT security audits at critical supplier sites; our other tools include supplier self-assessments, risk assessments, declarations and certifications, and announced onsite audits.

Announced onsite audits at our CM, ODM, and critical component supplier facilities are crucial to the success of our supplier program. Annually, we conduct CSR, security, and loss prevention audits at 100% of our CM and ODM facilities and, based on risk assessment results and incident and performance trends, at select Tier 1 component and logistics supplier sites. This process is aligned with industry standards, including the [RBA assessment](#) and [Validated Assessment Process \(VAP\)](#). All audit findings are tracked to closure in

accordance with our corrective action process.

Juniper has starting to look beyond just Tier 1 suppliers, including Tier 2 and 3 suppliers in the audit process and extending security assessments to sub-tier suppliers. The goal is to have more assurance and oversight of our supply chain, to continually monitor and drive performance improvements on CSR and security, and to uphold contractual and RBA membership requirements. We updated our supplier scorecards in 2018 and deployed these in 2019 to continually improve and develop our internal programs.

The objectives for the scorecard enhancements are to provide more transparency into our expectations and evaluations, promote more meaningful discussions with our suppliers, and drive initiatives that will support Juniper's supply chain goals.

Juniper's Business Partner Code of Conduct and Human Rights

The Juniper [Business Partner Code of Conduct](#) is reviewed and revised annually and is woven into our contracts. It outlines our expectations for ethical business practices and compliance with laws; lays out our objections to human trafficking, involuntary servitude and child labor; and articulates our alignment with the RBA Code of Conduct on fair labor practices and human rights. We respect the legal rights of employees to join or to refrain from joining worker organizations, including trade unions. Less than 2% of our workforce is covered by collective bargaining agreements. Juniper has a zero-tolerance policy regarding child labor and forced labor. Further

information on Juniper's anti-human trafficking and modern slavery program is available in our [annual disclosure statement](#).

We adopted the RBA Code of Conduct in 2007, and in 2015, we became an RBA member. The RBA provides guidelines and resources to drive performance and compliance with critical CSR policies to ensure that working conditions in the electronic industry supply chain are safe, that workers are treated with respect and dignity, and that manufacturing processes are environmentally responsible. Juniper fully supports the vision, mission, and principles of the RBA and is committed to the industry's collaborative approach in applying leading standards and practices throughout the supply chain.

Our Communities

At Juniper, we believe that extraordinary outcomes result from inquisitive thinking and open collaboration. We remain authentic to our own culture in part by cultivating relationships with nonprofit organizations that complement our corporate values to be bold, build trust, and deliver excellence.

Community Engagement

Our philanthropic activities are an important part of what Juniper stands for as a global organization. We're dedicated to making a significant, positive impact on communities worldwide.

Juniper strives to support communities close to home, and as a global company, this means we have the opportunity to make a difference all around the world. Through our Juniper Networks



Foundation Fund, employee volunteer programs, matching gifts, and our annual Global Day of Giving, our charitable efforts align closely with our mission to connect everything and empower everyone.

Juniper Networks Foundation Fund



Since its inception more than 18 years ago, the Juniper Networks Foundation has granted over \$18 million (USD) to nonprofit organizations

that support K-12 STEM education. As an important component of our diversity commitment and strategy, we've concentrated on nonprofits that focus on empowering girls as well as underprivileged and underrepresented students. We're immensely gratified to support initiatives that make a lasting and meaningful difference in students' lives. The Juniper Foundation is proud to support the following organizations:

[Boys and Girls Clubs of Silicon Valley](#)

[City Year San Jose](#)

[Code for Fun](#)

[Eastside College Preparatory School](#)

[Family Engagement Institute](#)

[Silicon Valley Children's Fund](#)

[Techbridge Girls](#)

Our employees are the lifeblood of Juniper, and they have a strong passion for making the world better. As part of our commitment to help them make a meaningful difference, full-time employees can take up to 40 hours a year, with pay, to volunteer for a cause they believe in. We also match donations up to \$1,000 (USD) per year per full-time employee. To date, Juniper has provided over \$5 million (USD) of employee matching funds, \$300,000 of which was in 2018



alone. As an example, in 2018 our Sunnyvale employees helped pack 261 backpacks and fulfilled 175 holiday wishes through the Family Giving Tree.

The Global Day of Giving

Over the last two years, we have implemented a Global Day of Giving, in which every Juniper employee around the world has an opportunity to engage in a meaningful volunteer experience. In 2018, we partnered with Rise Against Hunger, a nonprofit dedicated to providing nutrition to the most vulnerable children in underserved countries. We are proud to report that more than 700 employees participated, packing over 217,000 meals.

Global Citizenship

As a global company whose operations extend into both developed and developing economies throughout the world, Juniper recognizes its responsibility and its immense opportunity support the regions and communities affected by natural disasters. Since 2015, we have given more than \$125,000 (USD) to support disaster relief efforts in countries including Argentina, Bosnia, Colombia, Croatia, India, Nepal, Philippines, Serbia, and the United States. In 2018, Juniper contributed \$20,000 (USD) to help bring relief to those most impacted by the extreme California wildfires.

Empowering Our Communities: India's Smart Village Initiative

In 2015, Juniper began addressing some of the world's most visible inequalities through our partnership with Orohalli, a village just 30 kilometers away from our home in Bangalore, India. Though the physical distance between Bangalore and Orohalli is small, the difference in quality of life is vast. Like approximately 70 percent of India's population, the residents of Orohalli live in poverty and without access to clean water, education, or electricity. Despite the challenges these individuals face, we believe there are opportunities to build smart villages where technology and network connectivity can promote development and a higher quality of life.

Together with local NGOs, Juniper has created a plan to address four development priorities: education, healthcare, creating occupational opportunities, and ultimately using network connectivity to tie these things together. Since 2015, we have helped build and facilitate the curriculum for six primary schools, three middle schools, and numerous preschools, as well as provided access to education for more than 300 children of varying ages. The Juniper team has also worked to address health challenges by providing vaccinations and resources on topics like nutrition, water sanitation, and waste disposal to improve health conditions and reduce disease.

The Juniper Networks CSR team in Juniper's India Excellence Center has forged an enduring connection with the Orohalli people, and our employees volunteer and visit the village regularly. In 2018, employees volunteered to host a Sports Day in Orohalli, where kids competed with other local schools in a variety of activities and sports.

The Juniper team expects that by 2020, Orohalli will be self-sustaining in terms of its economy, education, and healthcare—with promising futures for the children as connected citizens of Digital India.



Appendix



In This Section:

Appendix I: Material Topics and Material Aspects

Appendix II: Global Reporting Initiative (GRI)
Content Index

Appendix III: Memberships and Associations

Appendix

Appendix I: Material Topics and Material Aspects

Juniper CCS Material Issue	Topic Description	Report Section	GRI Category	Specific GRI Disclosure
Business Ethics and Anti-corruption	Upholds high standards for business ethics across Juniper's operations and supply chain, including addressing corruption as a risk factor and providing employee training on anti-corruption practices.	Business Ethics and Anti-Corruption	Anti-corruption	GRI 205
Customer Satisfaction	Refers to the degree to which end-users feel Juniper products meet or exceed performance expectations and emphasizes sustained product quality.	Customer Satisfaction	N/A	N/A
Customer Data Protection and Privacy	Ensures Juniper take measures to ensure the security of personal data that is collected, stored, processed, or disseminated.	Privacy and Data Security	Customer Privacy	GRI 418
Product Safety	Addresses Juniper's ability to offer manufactured products that meet customer expectations and legal requirements with respect to the health and safety of the end-user.	Product Safety and Compliance	N/A	N/A
Employee Engagement	Refers to company-provided training and programs for upgrading employee skills and ensures employees are receiving regular performance and career development reviews.	Employee Engagement	Training and Education	GRI 404
Supply Chain Management	Emphasizes a robust supply chain management system, including mechanisms such as supplier scorecards and screening, comprehensive codes of conduct, and supplier audits and monitoring.	Responsible Supply Chain	N/A	N/A

Labor Practices	Ensures company activities have no negative impacts on the labor rights of workers, including the right to form or join trade unions and to bargain collectively, ensures compliance with local labor laws throughout the supply chain. Emphasizes Juniper's efforts to remove operations and suppliers at significant risk for incidents of forced, compulsory, or child labor.	Labor Practices and Human Rights	Freedom of Association and Collective Bargaining Child Labor Forced or Compulsory Labor	GRI 407 GRI 408 GRI 409
Business Continuity	Includes planning and preparation to ensure Juniper's continued operation in case of serious incidents or disasters throughout the value chain.	Supply Chain Management	N/A	N/A
Transparency and Reporting	Emphasizes transparency in reporting Juniper's corporate citizenship and sustainability goals, progress, and programs through clear, accessible public disclosures.	Transparency and Reporting	N/A	N/A
Environmental, Social, Governance (ESG) Management	Promotes the engagement of Juniper's leadership team on material ESG topics, including decision-making, management, review, and disclosure. Ensures the consultation of stakeholders on these topics.	ESG Governance	Governance	GRI 102-29 GRI 102-31 GRI 102-32
Diversity and Inclusion	Ensures that Juniper's culture and hiring practices embrace the building of a diverse and inclusive workforce. Includes compliance with non-discriminatory laws and addresses the issues of discriminatory practices on the basis of race, gender, ethnicity, religion, sexual orientation, and other factors.	Diversity and Inclusion	Non-discrimination	GRI 406

Appendix II: Global Reporting Initiative (GRI) Content Index

GRI Indicator	General Standard Disclosure	Report Section
102-1	Name of the organization	Company Profile
102-2	Activities, brands, products, and services, including an explanation of any products or services that are banned in certain markets	Company Profile
102-3	Location of headquarters	Company Profile
102-4	Location of operations	Company Profile
102-5	Ownership and legal form	Company Profile
102-6	Markets served	Company Profile
102-7	Report the scale of the organization, including:	Company Profile
102-8	Information on employees and other workers	Company Profile and Vision Inclusion and Diversity
102-9	Supply chain	Responsible Supply Chain
102-10	Report any significant changes during the reporting period regarding the organization's size, structure, ownership, or its supply chain.	About This Report
102-11	Report how the Precautionary Approach or Principle is addressed by the organization.	Product Safety and Compliance
102-12	List externally developed economic, environmental, and social charters, principles, or other initiatives to which the organization subscribes or which it endorses.	Corporate Governance Environmental Sustainability Employee Wellness Responsible Supply Chain Responsible Materials Sourcing Our Communities

102-13	List memberships of associations (such as industry associations) and national or international advocacy organizations. This refers primarily to memberships maintained at the organizational level.	Appendix III – Memberships and Associations
102-14	Statement from senior decision-maker	Letter from the CEO
102-16	Describe the organization’s values, principles, standards, and norms of behavior such as codes of conduct and codes of ethics.	Company Profile Corporate Governance, Ethics and Compliance
102-18	Report the governance structure of the organization, including committees of the highest governance body. Identify any committees responsible for decision-making on economic, environmental, and social topics.	Corporate Governance
102-40	Provide a list of stakeholder groups engaged by the organization.	Stakeholder Engagement
102-41	Report the percentage of employees covered by collective bargaining agreements.	Labor practices and human rights
102-42	Report the basis for identification and selection of stakeholders with whom to engage.	Materiality Analysis, Stakeholder Engagement
102-43	Report the organization’s approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.	Stakeholder Engagement
102-44	Report key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting. Report the stakeholder groups that raised each of the key topics and concerns.	Materiality Analysis, Stakeholder Engagement

102-45	List all entities included in the organization's consolidated financial statements or equivalent documents. Report whether any entity included in the organization's consolidated financial statements or equivalent documents is not covered by the report.	Company Profile
102-46	Explain the process for defining the report content and the material boundaries. Explain how the organization has implemented the Reporting Principles for Defining Report Content.	About This Report, Materiality Analysis, Stakeholder Engagement
102-47	List all the material topics identified in the process for defining report content.	Corporate Citizenship, Stakeholder Engagement
102-48	Report the effect of any restatements of information provided in previous reports, and the reasons for such restatements.	No restatement of information provided in previous reports is required.
102-49	Report significant changes from previous reporting periods in the list of material topics and material topic boundaries.	There are no significant changes in the list of material topics and material topic boundaries from the previous reporting periods.
102-50	Reporting period (such as fiscal or calendar year) for information provided.	About This Report
102-51	Date of most recent previous report (if any).	About This Report
102-52	Reporting cycle (such as annual, biennial).	About This Report
102-53	Provide the contact point for questions regarding the report or its contents.	About This Report
102-54	Report the "in accordance" option the organization has chosen.	About This Report
102-55	Report the GRI Content Index for the chosen option. Index must include disclosure numbers and page numbers (or direct URLs).	Appendix II – GRI Content Index

102-56	<p>Report the organization's policy and current practice with regard to seeking external assurance for the report.</p> <p>If not included in the assurance report accompanying the sustainability report, report the scope and basis of any external assurance provided.</p> <p>Report the relationship between the organization and the assurance providers.</p> <p>Report whether the highest governance body or senior executives are involved in seeking assurance for the organization's sustainability report.</p>	<p>This report was not externally assured and there are currently no plans to seek external assurance. The report content was thoroughly reviewed by internal subject matter experts and senior management to ensure the accuracy of statements and data.</p>
--------	--	---

Appendix III: Memberships and Associations

Trade Associations and Public Advocacy Groups

Alliance for Gray Market and Counterfeit Abatement

www.agmaglobal.org/

Armed Forces & Communications Electronics Association

www.afcea.org

ASIS International (American Society for Industrial Security)

www.asisonline.org

Cellular Operators Association of India

www.coai.com

Gartner - Corporate Executive Board

www.gartner.com/

Information Technology Industry Council

www.itic.org

International Security Management Association

www.isma.com/

National Association of Environmental, Health and Safety Managers

www.naem.org/

Responsible Business Alliance

<http://www.responsiblebusiness.org/>

Responsible Minerals Initiative

<http://www.responsiblemineralsinitiative.org/>

Silicon Valley Leadership Group

www.svlg.com

United States India Business Council (USIBC)

www.usibc.com/

United States-India Strategic Partnership Forum

www.usispf.org

Standards Bodies

3rd Generation Partnership Project

www.3gpp.org/

Alliance for Telecommunications Industry Solutions (ATIS)

www.atis.org/

Broadband Forum

www.broadband-forum.org/

CDP

www.cdp.net/

Ethernet Alliance

www.ethernetalliance.org/

European Telecommunications Standards Institute

www.etsi.org/WebSite/homepage.aspx

International Telecommunication Union

www.itu.int/ITU-T/

Internet Engineering Task Force

www.ietf.org/

Internet Society (ISOC)

www.isoc.org/

Metro Ethernet Forum

<http://metroethernetforum.org/index.php>

Next Generation Mobile Networks Alliance

www.ngmn.org/

Optical Internetworking Forum

www.oiforum.com/

Open Network Forum

www.opennetworking.org/

Payment Card Industry Security Standards Council

www.pcisecuritystandards.org/

PCI-SIG

www.pcisig.com/home/

Society of Cable Telecommunications Engineers

www.scte.org/default.aspx

Storage Networking Industry Association

www.snia.org/home

Trusted Computing Group

www.trustedcomputinggroup.org/

Critical Infrastructure Protection, Incident Response, and/or Government-Industry Partnership Organizations

Communications Sector Coordinating Council

www.commscc.org/

Cybersecurity Tech Accord

<https://cybertechaccord.org/>

DHS National Coordination Center for Communications

<https://www.dhs.gov/cisa/national-coordinating-center-communications#>

Enduring Security Framework—Critical Infrastructure Protection Advisory Committee

Industry Consortium for the Advance of Security on the Internet

www.icaso.org/

Information Technology Sector Coordinating Council

www.it-scc.org

Information Technology Sector Information Sharing and Analysis Center

www.it-isac.org/

National Cybersecurity Excellence Partnership

<https://www.nccoe.nist.gov/partners>

Forward-Looking Statements

This report contains forward-looking statements regarding future events or future expected results of Juniper Networks, Inc. that involve a number of uncertainties and risks because they are based on our current expectations, estimates, forecasts, and projections about our business, economic and market outlook, the industry in which we operate and the beliefs and assumptions of our management. Words such as “expects,” “anticipates,” “targets,” “goals,” “projects,” “would,” “could,” “intends,” “plans,” “believes,” “seeks,” “estimates,” variations of such words, and similar expressions are intended to identify such forward-looking statements. These statements may include information with respect to Juniper’s future strategies; technology; competitive landscape; partners, customers and suppliers; product portfolio and pipeline; performance; and overall prospects and are forward-looking statements within the meaning of the Private Securities Litigation Reform Act. Actual results or events could differ materially from those anticipated in these forward-looking statements.

Further information on these and other factors that could affect the company’s financial results is included in the company’s report on Form 10-K, Form 10-Q, Form 8-K and other filings we make with the Securities and Exchange Commission from time to time. All statements contained in this report are made only as of the date of the report. These documents are available on the SEC Filings section of the Investor Relations section of the company’s website at: <https://investor.juniper.net/investor-relations/default.aspx>

Juniper Networks, Inc. undertakes no obligation to update the information provided in this report in the event facts or circumstances subsequently change.

Corporate and Sales Headquarters

Juniper Networks, Inc.

1133 Innovation Way

Sunnyvale, CA 94089 USA

Phone: 888.JUNIPER (888.586.4737)

or +1.408.745.2000 Fax: +1.408.745.2100

www.juniper.net

APAC and EMEA Headquarters

Juniper Networks International B.V.

Boeing Avenue 240 1119 PZ Schiphol-Rijk

Amsterdam, The Netherlands

Phone: +31.0.207.125.700

Fax: +31.0.207.125.701

Copyright 2019 Juniper Networks, Inc. All rights reserved. Juniper Networks, the Juniper Networks logo, Juniper, and Junos are registered trademarks of Juniper Networks, Inc. in the United States and other countries. All other trademarks, service marks, registered marks, or registered service marks are the property of their respective owners. Juniper Networks assumes no responsibility for any inaccuracies in this document. Juniper Networks reserves the right to change, modify, transfer, or otherwise revise this publication without notice.

3000071-005-EN Jul 2019