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National Stock Exchange of India Limited

Exchange Plaza, C-1 Block G
Bandra Kurla Complex, Bandra (E),
Mumbai-400051

BSE Limited

Phiroze Jeejeebhoy Towers
Dalal Street,
Mumbai-400001

Ref: Bharti Airtel Limited (BHARTIARTL/532454)

Sub: Press Release

Dear Sir/ Madam,

We are enclosing herewith a press release titled “Airtel and Ciena to Build One of the World’s Largest Photonic Control Plane Networks for delivering Ultra-fast Data over 4G, 5G and FTTH” being issued by Bharti Airtel Limited.

Kindly take the same on records.

Thanking you,

Sincerely Yours

For Bharti Airtel Limited

Rohit Krishan Puri
Dy. Company Secretary & Compliance Officer



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(a Bharti Enterprise)

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Airtel and Ciena to Build One of the World's Largest Photonic Control Plane Networks for delivering Ultra-fast Data over 4G, 5G and FTTH

Network to span 130,000 kms and connect 4000+ towns across India

New Delhi, February 25, 2019: Bharti Airtel, India's leading telecommunications services provider, is deploying Ciena's (NYSE: CIEN) coherent optical and intelligent software platforms to build one of the World's Largest Photonic Control Plane networks in India.

Airtel's new backbone network will serve the exploding demand for high speed data services. It will also enable super-fast broadband experiences over 4G/5G/FTTH architectures, making the most efficient use of available fiber resources. The deployment is part of Project Leap – Airtel's network transformation program and will also enable a network that can quickly respond to simultaneous faults by re-computing and re-routing traffic based on available network resources.

Airtel's new backbone architecture creates a solid foundation that can cut across technology generations to seamlessly work with data rates of 400Gbps and higher to create a future proof scalable network. In addition, the architecture offers lower latency and software-controlled connectivity for Cloud infrastructure, faster transformation to virtualized platforms, and 5G readiness - essential to a world of connected devices and things.

Randeep Sekhon, CTO – Bharti Airtel said: "Airtel has always pioneered the introduction of cutting-edge network technologies to serve its customers. We are pleased to work with Ciena to build one of world's largest optical spine and leaf networks, which is also a big step towards 5G readiness by leveraging our huge fiber assets. This will not only scale our network for massive capacity but also protect traffic and enhance service delivery to all our customers. It will also help Airtel further strengthen its position as a key enabler of digital experiences in an increasingly connected world."

Photonics combined with advanced software intelligence enables a smart and agile network that allows for simplified provisioning of end-to-end network wavelengths, speed and capability to handle multiple fiber failures thereby providing users uninterrupted ultra-high capacity service. The network will also support bandwidth on demand, optical VPNs, latency based routing and dynamic data center interconnects, which will provide a unique value proposition for Airtel's retail and enterprise customers.

Ryan Perera, Vice President and General Manager, Ciena India said: "Airtel has an established reputation for embracing innovative technology to enrich the lives of its subscribers. The combination of Ciena's coherent optical, advanced software and control plane capabilities gives Bharti a scalable and robust infrastructure that can dynamically adapt to keep up with ever-changing user demands."

Airtel has been known for embracing cutting edge technology early on to have the first mover's advantage and leading innovation in India. The architecture is inspired from the technology that helped data centers deliver scalability to match the ever-growing demand by users. In



modern data centers, an alternative to the core/aggregation/access layer network topology has emerged known as leaf-spine, which is now extended to fiber optic-based backbone networks to enable lowest electrical touch points leveraging optical bypass capabilities for carrying large dataflows at the lowest cost per bit.

Airtel's innovative architecture leverages Ciena's [6500](#) Packet Optical platform powered by [WaveLogic Ai](#) coherent optics to provide a highly scalable, programmable infrastructure. Software control of Bharti's network operations is greatly automated with Ciena's [Blue Planet® Manage, Control and Plan](#) domain controller, which expedites alarm and fault management, service provisioning, node backup and restoration. Additionally, with Ciena's [Liquid Spectrum](#) analytics capability, the network can monitor, predict and address connectivity and capacity challenges as they occur.

About Airtel

Bharti Airtel Limited is a leading global telecommunications company with operations in 18 countries across Asia and Africa. Headquartered in New Delhi, India, the company ranks amongst the top 3 mobile service providers globally in terms of subscribers. In India, the company's product offerings include 2G, 3G and 4G wireless services, mobile commerce, fixed line services, high speed home broadband, DTH, enterprise services including national & international long distance services to carriers. In the rest of the geographies, it offers 2G, 3G, 4G wireless services and mobile commerce. Bharti Airtel had over 403 million customers across its operations at the end of Dec 2018. To know more please visit, www.airtel.com

About Ciena

Ciena (NYSE: CIEN) is a networking systems, services and software company. We provide solutions that help our clients create the Adaptive Network® in response to the constantly changing demands of their users. By delivering best-in-class networking technology through high-touch consultative relationships, we build the world's most agile networks with automation, openness and scale. For updates on Ciena, follow us on Twitter [@Ciena](#), [LinkedIn](#), the [Ciena Insights blog](#), or visit www.ciena.com.

Note to Ciena Investors

You are encouraged to review the [Investors section](#) of our website, where we routinely post press releases, SEC filings, recent news, financial results, and other announcements. From time to time we exclusively post material information to this website along with other disclosure channels that we use. This press release contains certain forward-looking statements that are based on our current expectations, forecasts, information and assumptions. These statements involve inherent risks and uncertainties. Actual results or outcomes may differ materially from those stated or implied, because of risks and uncertainties, including those detailed in our most recent annual and quarterly reports filed with the SEC. Forward-looking statements include statements regarding our expectations, beliefs, intentions or strategies and can be identified by words such as "anticipate," "believe," "could," "estimate," "expect," "intend," "may," "should," "will," and "would" or similar words. Ciena assumes no obligation to update the information included in this press release, whether as a result of new information, future events or otherwise.