

### **3 Digital Trends For Your Business In 2020**

We are entering an era of unprecedented digital transformation. Understanding the key digital trends influencing your sector can help to transform your marketing strategy and business performance in 2020. In the datacom and telecom sectors, I expect three key market technology trends to dominate the next twelve-plus months.

### **Deployment of 5G**

The roll-out of 5G is set to begin in 2020 and is perhaps one of the most disruptive of the digital era, with the potential to transform the way we live, work and communicate.

Fueled by consumer and business demand, 5G deployment will play a major role in supporting the development of smart homes and cities, cloud-based applications and 3D video.



For instance:

- Enhanced mobile bandwidth: <u>5G will transmit data up to 100 times faster than current 4G</u> <u>networks</u>. In theory, a two-hour movie could be downloaded in just 3.6 seconds.
- Low latency: The key benefit here is the faster response, which allows almost instant communication. We expect a number of new applications in sectors including healthcare (wearables and telemedicine for example) – and automotive (autonomous vehicles). Low latency will also unlock the vast potential of AR and VR rapid response times.
- 5G is expected to be the fastest mobile communication technology rolled out on a global scale. Ericsson predicts 2.6 billion subscriptions to 5G by the end of 2025, covering up to 65% of the world's population and generating 45% of the global total mobile data traffic.
- IDC's <u>Worldwide Mobile Phone Forecast, 2019-2023</u> also predicts a wave of upgrades and growth in smartphone markets as a result of the deployment of 5G.



The deployment of 5G will also accelerate the adoption of the (IoT) Internet of Things. Research from Juniper suggests that the IoT is still in a "nascent stage" but expects the number of connected devices to almost triple to 38 billion units in 2020.

# **Growth of Hyperscale Data Centers**

The growth of hyperscale data centers is driven by increasing demand in several areas, such as online content. A brief snapshot of statistics provides more insight into that demand:

- Mobile video consumption is rising by 100% annually.
- By 2022, online videos are expected to make up over 82% of all consumer internet traffic.
- YouTube is the second most popular website after Google. Visitors watch more than 1 billion hours of video on the site every day.
- As of January 5, 2020, there were <u>close to 4.44 billion global internet users compared to 3.42</u> <u>billion users at the end of 2016</u>.

In addition, <u>ecommerce sales are expected to exceed \$4.2 trillion USD in 2020 and more than \$6.5</u> <u>trillion by 2023</u>. 5G will transform the consumer experience of online shopping.

Data centers are buildings that support the network infrastructure of a business and allow IT operations and equipment to be centralized. Security and reliability are high priorities for these centers. Hyperscale data centers are owned and operated by the company they support and are essential for big data and cloud storage.

<u>Hyperscale operators accounted for one third of spending on data center hardware and software in</u> <u>the first three quarters of 2019</u>. Furthermore, according to Cisco's 2018 Global Cloud Index Forecast, they are <u>projected to increase in number to 628 centers by 2021</u> (versus 338 centers at the end of 2016), representing 53% of all installed data center servers.

The switch from wired to fiber optic connectivity between data centers and racks is stressing optical transceiver capability and increasing the heat generated by high speeds and big-data volumes.

## The rise of 400G Solutions

As hyperscale data centers shift to faster and more scalable network architectures, demand for higher bandwidth and more rapid connectivity is increasing. A migration to cloud storage and adoption, coupled with rising integration of AI, machine learning and deep learning is contributing to that demand.

400G solutions offer a fourfold increase in maximum data transfer speeds, enabling more throughput of data. They also enable enhanced higher capacity data transfers to accommodate high definition (4k) video streaming, virtual reality content, AI and video games, as well as supporting the expansion of 5G networks.



Embracing modern technologies to access the data and invaluable insights necessary to optimize the digital enterprise is vital for business performance and long-term success.



As we begin a new decade and a new era, embracing these three key trends empowers businesses to create an agile response to market demand and the disruption that accompanies digital transformation.

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