



October 1, 2018

**VIA ELECTRONIC FILING**

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, DC 20554

**Re: *Applications of T-Mobile US, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations, WT Docket No. 18-197***

Dear Ms. Dortch:

Cisco Systems, Inc., the world's largest networking company, files this letter in support of the above-reference applications of T-Mobile US, Inc. and Sprint Corporation. As a networking leader, Cisco thrives when all aspects of the ecosystem – core network, edge and applications – invest and grow through innovation. Cisco is deeply committed to innovation and investment. We have long provided the wireless industry with hardware and services that simplify deployment and accelerate convergence. Cisco has invested for decades in developing cutting edge networking technologies, including over \$6 billion in research and development during 2018. We aim to change the world through digitizing and improving all aspects of our society. In the proposed merger of T-Mobile and Sprint, we see the chance to create more investment and more network value for both American businesses and American consumers.

T-Mobile and Sprint have committed to investing nearly \$40 billion to deploy next-generation wireless broadband technology following the merger of the two companies.<sup>1</sup> The New T-Mobile's ambitious deployment plans depend on employing some of the most advanced networking technology and services on a network that combines the strong spectrum and network assets of the companies.<sup>2</sup> The integration of the companies' resources – or more precisely, the migration of these systems to a more advanced, more nimble unified platform – will demand a digital network architecture that transcends the purpose-built, hardware-based networks of the past.

Maintaining layers of costly and complex networking equipment can impede wireless broadband deployment just as much as insufficient spectrum resources or excessively limited purchasing power. Having a clear vision and a plan to build an intelligent core network is more important—and more challenging—than ever. The New T-Mobile will rely on an advanced, all-IP core network with interfaces to multiple systems. Unlike base stations and handsets, the public will not see this advanced new evolved packet core (EPC) architecture. But consumers will experience it through higher throughput, lower latency, enhanced service control and provisioning, and more efficient use of network resources.

T-Mobile has long been at the forefront of EPC network innovation. Recently, for example, T-Mobile announced its deployment of a nationwide virtual packet core using Cisco's distributed software-defined network (SDN)

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<sup>1</sup> Public Interest Statement at 15.

<sup>2</sup> *Id.* at 29-30.



architecture.<sup>3</sup> This new virtualized and cloud-based architecture will allow T-Mobile to launch new services with automated deployments faster and more efficiently than ever before. The new SDN will also position the post-merger company for more rapid deployment of 5G services.

Through its partnership with Cisco to deploy what is already the world's largest virtual EPC network, T-Mobile has also laid the foundation for a disciplined, pragmatic approach to realizing merger synergies and new revenue opportunities following the combination with Sprint. Cisco's Ultra Virtual Packet Core – and the ongoing policy support Cisco's extensive software engineering team will provide – is sophisticated and agile enough not only to allow for the rapid deployment of new services, but also for the speedy integration of existing systems.

Cisco works with many different carriers around the world to deploy virtual EPC functionalities. Virtual EPCs allow carriers to customize networks to meet unique customer requirements. Virtual EPCs also help carriers reduce their reliance on specialized hardware that can frustrate scale efficiencies and constrain real-time responses. Realizing the power of disaggregated network functions through much more extensive deployment and use of virtual EPC represents an important, if easily overlooked, element of the merger-specific synergies that the merger of T-Mobile and Sprint can realize.

The combination of T-Mobile and Sprint offers a powerful opportunity for rapid technical innovation. Cisco strongly supports the merger for its potential to speed service delivery, scale network resources, and promote a new ecosystem for economic growth and development that extends far beyond handsets and base stations.

Sincerely,

/s/

Jeffrey A. Campbell  
Vice President, Government Affairs  
Cisco Systems, Inc.

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<sup>3</sup> T-Mobile Launches World's Largest Virtual Packet Core with Cisco in Preparation for 5G, Press Release, *Cisco Newsroom*, (rel., Sept. 12, 2018), <http://newsroom.cisco.com/press-release-content?type=webcontent&articleId=1943598>.