



October 21, 2019

## 5G Deployment Services Executive Summary

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DISH is planning to build a greenfield, standalone, and cloud-native 5G network. The timeline of this network will start with a trial of 5G wireless services in an individual market beginning in 2020, continue with a commercial launch of initial use cases and markets by the end of 2020, and a national deployment of 5G wireless services to be completed by the first half of 2023.

DISH is soliciting proposals from national, regional, and local partners to provide services for the end-to-end deployment of 5G sites from site acquisition to equipment installation. These sites will be utilized by DISH as part of its 5G wireless network in the United States and certain of its territories and possessions. Specifically, DISH is interested in understanding each service provider's deployment strategies, experience and pricing structure in the following areas:

1. Real Estate / Pre-Construction
  - a. Site acquisition services to include site identification, leasing, zoning, and permitting
  - b. Architecture and engineering services to include structural analyses, zoning drawings, construction drawings, etc.
  - c. Utility coordination to facilitate the timely delivery of electrical services and/or transport fronthaul/backhaul services and associated easements
  - d. Regulatory and compliance services associated with the construction of wireless communications facilities
2. Construction
  - a. End-to-end construction services including equipment/material procurement, pre-construction staging, quality and safety management, as well as documentation throughout

- b. Civil/electrical work to prepare sites for 5G equipment and delivery, install and connect equipment to electrical and transport utilities
- c. RF installation services to deploy 5G antennas, remote radio units, hybrid cables, etc.

Additionally, DISH has entered into a series of agreements and arrangements with the United States government, T-Mobile and Sprint that materially impact our deployment plans and will facilitate and accelerate our entry into the wireless market as a nationwide facilities-based carrier. Those arrangements are described below, and are included in the [8-K that DISH filed on July 26, 2019](#).

Among other things,

(1) Following the merger of T-Mobile and Sprint, New T-Mobile will sell to DISH certain assets associated with the Boost Mobile, Virgin Mobile and Sprint-branded prepaid mobile service businesses (the “Prepaid Business”), which will provide DISH with millions of wireless subscribers nationwide.

(2) Pursuant to a Master Network Services Agreement, DISH will gain access to New T-Mobile’s network for up to 7 years to enable DISH to provide wireless communications services to end users (including those acquired as part of the Prepaid Business) and to allow DISH to evolve such business into a free- standing, fully independent wireless network operator business.

(3) DISH has committed to the FCC that, by June 14, 2022, it will have deployed a core network and will offer 5G Broadband Service<sup>1</sup> to at least 20% of the U.S. population<sup>2</sup> using DISH’s AWS-4, Lower 700 MHz E Block and H Block licenses.

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<sup>1</sup> “5G” is defined as the 5G New Radio air interface standard as described in 3GPP Release 15, *available at <https://www.3gpp.org/release-15>*, or 3GPP Release 16 within 3 years of 3GPP final approval; “5G Broadband Service” means at least 3GPP Release 15 capable of providing Enhanced Mobile Broadband (eMBB) functionality.

<sup>2</sup> “U.S. Population” is defined as the population of the United States (including the 50 states, Puerto Rico and the U.S. territories) reported in either the 2010 U.S. Census (312,846,492) or the 2020 U.S. Census (which is expected to be reported in 2021). In its sole discretion, DISH may choose whether to utilize the

(4) DISH has committed to the FCC that, by June 14, 2023, it will deploy a nationwide 5G network using DISH's spectrum with:

(A) At least 70% of the U.S. population having access to download speeds equal to or greater than 35 Mbps, as verified by a drive test;

(B) At least 15,000 5G Sites<sup>3</sup> deployed; and

(C) At least 30 MHz of DISH's downlink 5G spectrum averaged over all DISH 5G Sites deployed nationwide.

(5) DISH has committed to the FCC that, by June 14, 2023, it will offer 5G Broadband Service to at least 70% of the U.S. population using its 600 MHz, AWS-4, Lower 700 MHz E Block and H Block licenses.

(6) DISH has committed to the FCC that, by June 14, 2025, it will offer 5G Broadband Service to at least 75% of the population in each Partial Economic Area (PEA) using its 600 MHz licenses.

If interested, please send an email with your company's information to [5GservicesRFP@dish.com](mailto:5GservicesRFP@dish.com).

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2010 or 2020 versions of the U.S. Census in calculating its compliance with its commitments, but DISH must apply the same population total and population distributions to all calculations uniformly.

<sup>3</sup> "5G Sites" is defined as macro sites on which 5G radios are deployed.