

Durango Mountain Utilities Internet Plans

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Preface

Before I just jump in and start going over the internet plans for Durango Mountain Utilities (DMU), it is important that everyone understands that due to the nature of the mountain landscape there are two different internet systems that DMU utilizes.

The first is the Ruckus system which is a system of **Wireless Access Points (WAPs)** that are placed throughout the resort. These are deployed on the Beach and Plaza as well as in the Lodge, Kendall, Village Center, Peregrine Point, Angel Haus, and soon Eolus. On the Ruckus system we have several wireless networks that are utilized for different purposes and run at different speeds. You can find more details about these here: <https://durangomountainutilities.com/frequently-asked-questions>.

For places where the Ruckus system can't reach or is impractical, we have a **cable modem system**. Each cable modem is set up in an individual unit and managed individually.

As you will see below, DMU has several initiatives to upgrade and expand the internet. Unfortunately, while we had hoped to have some of this completed before our summer opening, like other businesses and individuals have seen recently, getting components and vendors to complete the work has been an ongoing challenge. That said, right now it does look like most, if not all, of our current projects should be completed before our winter opening.

Summary

Current DMU Projects

1. Cable Internet/TV infrastructure upgrade
2. CMTS (Cable Modem Termination system) Upgrade
3. Modem Upgrade
4. Beach Plaza Wireless Access Point (WAP) Upgrade
5. Eolus transition to Ruckus system
6. Additional Wireless Bridges to feed faster internet to Powderhouse and Dante's
7. Additional WAP's in Powderhouse & Dante's
8. Core Switch upgrade

Projects for Next Year

1. Ruckus WAP upgrades for Lodge, Kendall, and Village Center
2. Potential fiber cabling to some buildings
3. Potential other building transition to Ruckus system

Long Term Projections

1. Fiber to the top of lift one
2. Fiber across the top of the mountain (Dante's, Top of Lift 3, 5, 8)
3. More fiber!!!

Details

- **Cable Internet/TV infrastructure upgrade** – This is the biggest DMU project currently underway. This project entails an upgrade to all the amplifiers/ line extenders, taps and some of the cabling that supports our TV and cable modem services. It also includes the addition of all the new areas under construction like the new condos in Tacoma Village. This is one of those projects we had hoped to complete prior to the summer opening. Unfortunately, we were unable to get the equipment delivered in time. At present, about 90% of the equipment has arrived, with the remaining equipment projected to arrive near the end of August or early September. We estimate the actual installation and recalibration of the system will take about two weeks. During this time there will be intermittent disruption to our service. Once complete, this will set the stage for the next two projects on the list.
- **CMTS (Cable Modem Termination system) Upgrade** – This is the system that supports and manages the cable modem throughout the resort. Once complete, this will give us double the number of channels (frequencies used to transmit data up and down to the modem). Currently, our base modem offering is 30Mbps download and 10Mbps upload (30/10) speeds; we plan to change that to 50/20 at no additional charge.
- **Modem Upgrade** – To fully take advantage of the CMTS upgrade many of the units will have to upgrade to a higher end modem. DMU will continue to support existing modems that are currently in use, but you may not be able to take advantage of the higher speeds or improvements in Wi-Fi technology depending upon the current model of modem you have. To simplify management of the modems DMU has decided to standardize on a single modem model going forward, the Arris DG9450. We will be selling these for around \$200 (price TBD soon). It is unlikely you will be able to find this modem at a better price, but if you do you can purchase it and just notify us of its MAC address so we can provision it and authorize it on our system.
- **Beach Plaza Wireless Access Point (WAP) Upgrade** – At the end of the 2021/22 ski season we had 5 WAP's that provided service to the Beach and Plaza. Today we have 10 new WAP's that have a higher capacity for concurrent connections and support the latest Wi-Fi technologies. We will be adding an additional eight before the beginning of the 2022/2023 ski season.
- **Eolus transition to Ruckus system** – DMU had hoped to have this project completed before the summer season began but unfortunately, we have been unable to acquire the WAP's to install to complete this project. This will include an additional 20 WAP's added to our Ruckus system. Currently, they are projected to be delivered sometime in October but, sadly, even this date is not guaranteed. The good news is that the supporting infrastructure should be completed by the end of August so the final installation of the WAP's will only take about a single day to complete.
- **Additional Wireless Bridges to feed faster internet to Powderhouse and Dante's** – This fall DMU will be installing two additional pairs of Wireless bridges to provide additional bandwidth to both Dante's and Powderhouse on the mountain. We already have all the equipment we need so this will be completed well in advance of winter opening.
- **Additional WAP's in Powderhouse & Dante's** – To make the best use of the additional bandwidth at Dante's and the Powderhouse additional WAP's will be installed.
- **Core Switch upgrade** – This upgrade will not have any noticeable immediate impact on DMU's internet service, but it will set us up for future growth; primarily by providing us with a jumping off point to extend fiber all over the resort.

- **Ruckus WAP upgrades for Lodge, Kendall, and Village Center** – Though we have not seen any issues with our existing WAP's in these buildings, during the spring shoulder season we will be replacing all the existing WAP's in these building with WAP's that have a higher capacity and support the latest Wi-Fi standards.
- **Future Fiber Growth** – While not much is written in stone, this is the future direction DMU will be taking to continue to increase Internet coverage and speeds throughout the resort. One thing that is in the early planning stages is getting fiber to the top of the mountain via lift one. Once that is complete the next stage is to extend this across the top side of the mountain all the way to the backside and lift eight. We are also in some preliminary discussions with some of the HOA's about bringing fiber to the individual condo buildings and perhaps extending the Ruckus Wi-Fi system.

Conclusion

DMU recognizes that the internet is a service, that for many people is not just a luxury, but a necessity. This year DMU has invested to significantly upgrade the internet experience for the entire resort and are currently on track to complete all our planned upgrades well before the winter opening. Early next year we will complete the upgrade to all the lodging units that are supported by the Ruckus system. Over the next two to five years DMU plans to allocate additional resources to upgrade and expand our internet services throughout the resort.