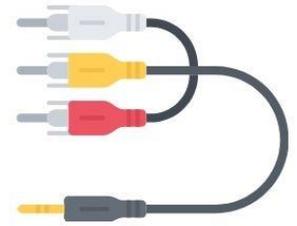


# CABLE COMPARISONS

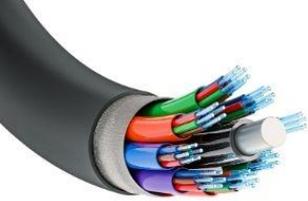
## *Which one is right for me?*



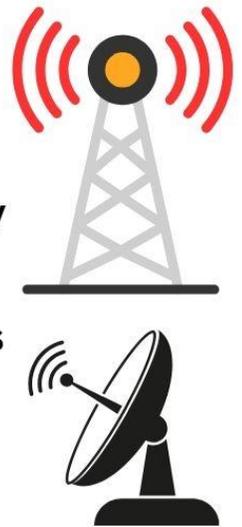
by *Bob Bilodeau, VP Technology*  
*Kay Condon, Editor*

Are you struggling to understand the difference between options available for high-speed, long distance telecommunications? You are not alone! Now that fiber optics is being introduced to Tellico Village, people are wondering what the difference is between regular cable (coaxial) and fiber optic cable. Check out the comparisons below and see what's right for YOU!

	COAXIAL COPPER WIRE	FIBER OPTIC CABLE
SPEED & BANDWIDTH	<ul style="list-style-type: none"><li>• Supports decent speeds.</li><li>• Customers share bandwidth which can lead to congestion and slower transmissions.</li></ul>	<ul style="list-style-type: none"><li>• Offers higher speeds.</li><li>• Much greater bandwidth capacity, making it ideal for high-speed internet.</li></ul>
SIGNAL QUALITY & INTERFERENCE	<ul style="list-style-type: none"><li>• Susceptible to electromagnetic interference from lightning and nearby electric devices which can degrade signal quality.</li></ul>	<ul style="list-style-type: none"><li>• Uses light pulses instead of electrical signals.</li><li>• Immune to electromagnetic interference.</li></ul>
DISTANCE & SIGNAL DEGRADATION	<ul style="list-style-type: none"><li>• Signal strength weakens over long distances, requiring amplifiers to boost transmission.</li></ul>	<ul style="list-style-type: none"><li>• Maintains signal over much longer distances without requiring amplification</li></ul>
RELIABILITY	<ul style="list-style-type: none"><li>• Affected by temperature and environment.</li></ul>	<ul style="list-style-type: none"><li>• Resistant to weathering and extreme environmental conditions</li></ul>
COST & INSTALLATION	<ul style="list-style-type: none"><li>• Cheaper and easier to install</li><li>• Cost effective for smaller networks</li></ul>	<ul style="list-style-type: none"><li>• More costly upfront due to complex installation</li><li>• Offers long-term benefits and cost-efficiency</li></ul>



# HOW DOES FIBER OPTIC COMPARE TO WIRELESS / SATELLITE?



As property owners in Tellico Village, we are fortunate to have a variety of options when selecting an internet service provider. To make an informed decision, it's crucial to understand the advantages and disadvantages of the different technologies available. History suggests that future internet applications, such as self-help chat, self-learning video, advanced search, and telemedicine, all of which leverage Artificial Intelligence, are likely to demand increased bandwidth and reduced latency.

	WIRELESS / SATELLITE	FIBER OPTIC
SPEED & BANDWIDTH	<ul style="list-style-type: none"><li>• 5G and Wi-Fi 6, 7 can be fast, but prone to congestion</li></ul>	<ul style="list-style-type: none"><li>• Can transmit data at gigabyte speeds and beyond</li></ul>
RELIABILITY & STABILITY	<ul style="list-style-type: none"><li>• Prone to interference, such as walls, nearby network signals, and weather</li></ul>	<ul style="list-style-type: none"><li>• More stable and less affected by environmental interference</li></ul>
LATENCY	<ul style="list-style-type: none"><li>• More transmission delay over longer distances and crowded networks</li></ul>	<ul style="list-style-type: none"><li>• Minimal delay in data transmissions</li><li>• Ideal for gaming and streaming</li></ul>
INSTALLATION & INFRASTRUCTURE	<ul style="list-style-type: none"><li>• Easier to install</li><li>• Requires access points or towers</li><li>• Great for mobility, especially when laying fiber is impractical</li></ul>	<ul style="list-style-type: none"><li>• Requires physical cable installation</li><li>• Can be more costly to install</li><li>• Supports higher connection speeds</li></ul>
COST & ACCESSABILITY	<ul style="list-style-type: none"><li>• Cheaper &amp; more accessible</li><li>• Diminished long-term reliability and performance</li></ul>	<ul style="list-style-type: none"><li>• More expensive upfront due to installation costs</li><li>• More effective over time due to durability and longevity</li></ul>