

6 WAYS

REMOTE-PHY SPLITS THE DIFFERENCE TO MAKE A DIFFERENCE

It's clear that fiber node counts will skyrocket over the next decade as operators split nodes at an unprecedented rate to reduce service group sizes and meet bandwidth requirements. Remote-PHY (R-PHY) lets operators split integrated CCAPs into a CCAP core at the headend and multiple R-PHY circuits distributed at fiber network nodes.

Here are 6 reasons why we think R-PHY is a powerful strategy for meeting subscriber demand for more bandwidth and enhanced performance:



#1 **Reduces headend power requirements**

Hubs have become overstuffed with equipment. It takes a lot of power to keep all that highly concentrated gear cool. R-PHY lets you shift headend equipment out to network nodes, which is a great way to lower your hub's cooling load and electric bill.



#2 **Optimizes rackspace**

By moving the upstream demodulation and downstream modulation functions out to network nodes, R-PHY reduces the amount of gear consuming space at your existing hubs. By keeping MAC functions in the hub, it improves reliability and preserves a path to virtualization in the not-so-distant future.



#3 **Increases usable wavelengths on a fiber run**

R-PHY enhances performance by putting durable, low-maintenance digital optical links between the headend and the network. It delivers higher bit-rates, better spectral efficiency and more usable wavelengths per fiber.



#4 **Improves end-of-line signal quality**

By moving digital signal generation from the headend to the fiber node, R-PHY delivers superior optical signal-to-noise ratio and excellent end-of-line signal quality. It also feeds more bandwidth to the optical nodes that convert digital data, to and from analog format, used by the customer's cable modem.



#5 **Enables headend consolidation**

As headends have become more complicated, the case for consolidated processing of legacy video, on-demand programming and IP-connected content has become stronger. By carrying information in digital format over longer fiber runs from the headend to network nodes, R-PHY enables the consolidation of regional headends to cut operating costs.



#6 **Allows Service Providers to go 'fiber deeper'**

With a large base of vendors developing standards-based R-PHY products, Service Providers can push the optical-to-electrical conversion point closer to the user and move toward a Node+O configuration. Extending digital signals further into the network before converting them to and from analog format delivers higher average bandwidth per subscriber and creates a superior customer experience.

To learn more, visit
arris.com/solutions/distributed-access-architecture



ARRIS

arris.com