



Illinois Century Network

ICN Enabled High Speed Broadband to K12

Essam El-Beik
Illinois Dept. of Central Management Services
essam.el-beik@illinois.gov
214 792 9866

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Table of Contents

- Introduction
- New E-rate rules
- Special Construction and Indefeasible Right of Use - Definition
- Traditional Approach
- New Approach
- ICN Plan
- School To Do's





Introduction

- This presentation explains the new FCC rules relating to construction of network and highlights how ICN will respond to school and library E-rate requests for high speed broadband where a fiber build is required.
- The presentation clarifies key terms used such as “Special Construction” and “Indefeasible Right of Use” (IRU)
- The presentation shows how taking advantage of the new E-rate rules provides a more cost effective method of delivering high speed broadband. Cost effective for both the school or library and E-rate.



New E-rate Rules

- To enable a more cost effective approach, new rules were introduced in December 2014, for funding year 2016, relating to Special Construction
 - FCC has suspended the amortization requirement for large construction projects (over \$500,000). Schools can request funding for 100% of the construction cost for large projects in year 1
 - FCC allows the school to pay their match portion in installments, over up to 4 years, if requested in the E-rate form 470 and accepted by the service provider
 - FCC will match (with an additional 10% discount) a state contribution to the school match for a construction project
 - A school at an 80% E-rate discount level, with a state contribution of 10% and an additional FCC match of 10% will pay no money for the construction
 - E-rate subsidy is available for a school or library to construct their own network or purchase dark fiber including the associated electronics, operations and maintenance.



New E-rate Rules

- The new E-rate rules discourage paying a service provider high monthly fees for 5, 7 or 10 years for lit service that includes a fiber construction. Instead, the FCC will pay for construction up front, with the school or library being allowed to pay their required match up front or in installments over 4 years (if accepted by the service provider).

- Note that the new rules relating to Special Construction apply when:
 - The service provider constructs network and provides lit service to the school or library
 - The service provider constructs network and sells dark fiber to the school or library
 - The school or library constructs the network



Special Construction - Definition

- New E-rate rules were introduced giving distinct benefit to Special Construction charges. These rules do not apply to upfront charges that are not Special Construction. Thus, it is important to understand the charges that can be considered Special Construction
- Special Construction charges relate to the actual construction of network, including the engineering, design, project management and physical construction
- Dark fiber Indefeasible Rights of Use (IRU), where there has been no new construction, are not eligible for the Special Construction benefits – however are valid category 1 charges. Hence, the FCC is promoting actual build of network



Fiber Indefeasible Right of Use

- When you purchase fiber that has not been “lit” with electronics, you are purchasing fiber strands laid in the ground or deployed on poles. You are purchasing dark fiber.
- There are two typical approaches to purchase dark fiber. Via a lease of a specified term, where you pay monthly. This is a dark fiber lease. Or where you pay a one time upfront charge for a long term right to use – this is typically via Indefeasible Right of Use (IRU). Indefeasible means “irrevocable”. Since you have paid up front, you do not want your right to use to be taken away – for example, if the seller of the dark fiber goes bankrupt. Hence, IRU is a stronger form of ownership than lease.



Fiber Indefeasible Right of Use

- Tax implications between dark fiber lease (expense) and IRU (capital)
- Ensure the language in the IRU agreement explicitly expresses your intent



Traditional Approach

- A service provider responding to an E-rate request for lit service that required a fiber build traditionally charged high monthly fees for the contract term. The build would be paid for within 2 – 3 years. The benefit to the school or library in this scenario is zero upfront charges. On contract renewal monthly fees would often not be lowered.
- This approach has been, by far, the most common method of building fiber connections to schools
- FCC has recognized there is a more cost effective approach.



New Approach

- Rather than have high monthly fees and zero upfront costs the FCC encourages lower monthly fees and upfront “Special Construction” costs
- The FCC will subsidize the Special Construction up to the applicant discount rate and will allow the applicant to pay the remaining portion over 4 years – hence, no upfront costs for the applicant
- If the school or library wishes to pay Special Construction charges in installments, this must be indicated on the form 470.
 - The service provider is not obligated to offer this
 - The applicant may use service provider willingness to offer installment payments as evaluation criteria



New Approach

- If the school or library wishes to cover construction via this approach, the school or library should indicate this on their form 470. Otherwise, the service provider may follow the traditional approach (especially if the installment payment plan option is not checked)
- For example, the school or library requests lit service as in prior years. This year, the school or library could also state in the narrative section *“if the provision of the lit service requires a construction, please provide a one time special construction charge versus amortizing the construction, and please indicate willingness to allow installment payments for the school or library required match”*



New Approach

- Note that Special Construction here is associated with a service provider lit service response. Special construction can also be used when the school or library builds their own fiber network or a service provider builds fiber, then sells a dark fiber IRU to the school or library



ICN Plan

- ICN will be actively looking for and responding to E-rate form 470's requiring fiber builds, to deliver high speed broadband
- ICN will take advantage of the new E-rate rules, and will allow the school to pay their match over 4 years
 - **The school is required to request in the E-rate form 470 that they want to pay their portion over 4 years. The service provider is not obligated to meet the school request**
 - **ICN will allow the school to pay over 4 years, with no finance charges**
- ICN pricing reduced significantly from July 1st 2015
- To the published pricing add \$250/month for maintenance of fiber connection and 1G capacity customer premise equipment, \$400/month for 10G capacity
- Thus, a 100Mb/s connection is $\$600 + \$250 = \$850$ /month for a direct fiber connection with 1Gb/s customer premise equipment installed at customer site



School To Do's

- Get a heads up from service providers in your area (including ICN) of the cost to provide high speed broadband via fiber
- Inform the service providers (including ICN) of your intent to issue an E-rate form 470 with the requirement for high speed broadband
- Let them know you're expecting a proposal that includes upfront special construction and let them know you will be requesting payment of the school match portion over 4 years
- If you use an E-rate consultant, ensure they are aware of the new rules and inform them of your intent
- Be aware of all your options – self construction, dark fiber purchase and lit service.
 - ICN will not be responding to self construction requests
 - ICN will sell dark fiber. Please alert us in advance of your desire to purchase ICN dark fiber



School To Do's

- If you use a commercial service provider, ensure you understand your renewal rights at contract expiration
- Protect yourself for the long term, i.e. after the initial contract has expired (5 – 20+ years)



School Owned Networks

- If you have already purchased your fiber network or have already self constructed in prior years – you can still request E-rate support for operations and maintenance and the electronics. These components have to be competitively bid per standard E-rate rules.
- Please see page 5 of the Funding Year 2016 Eligible Services List at the following link
http://www.usac.org/_res/documents/sl/pdf/ESL_archive/EligibleServicesList-2016.pdf

“Applicants that currently own a self-provisioned broadband network or lease dark fiber may apply for Category One support for new modulating electronics and other equipment necessary to make the broadband service functional as well as for maintenance and operating costs of those existing networks.”