



# Maximizing Category 2 E-Rate Funding

Lorrie Germann, State E-Rate Coordinator  
MCNE, CCNA, IT Project+, Security+, Network+, A+



## WHAT IS CATEGORY 2 E-Rate FUNDING?

- Category 2 is the funding mechanism under the E-Rate program designed to fund networking equipment and infrastructure **within** a school or library building.
- All eligible requests that have followed the proper bidding rules will be funded, regardless of the E-Rate discount, up to a building's 5-year cap.

# HOW MANY YEARS WILL CATEGORY 2 FUNDING BE AVAILABLE?

The answer is...we're unsure

- The FCC rules say that the C2 budgets are for 5-years, based on the first year that any school in the district was committed C2 funding.
- However, there is also language indicating that C2 funding is only available through FY 2019, after which it will sunset unless the FCC takes action.
- That's why I strongly encourage all schools to consider their internal connections needs, and utilize their Category 2 E-Rate budgets in Funding Year 2019, if the program in it's current form is not extended.

# IMPORTANT COMPONENTS TO APPLYING FOR C2 FUNDING

There are four important components to applying for C2 funding:

1. **TIMELINE** – Understanding the Category 2 purchasing timeline
2. **ELIGIBILITY** – Knowing what equipment and services are eligible
3. **C2 BUDGETS** – Calculating your 5-year C2 E-Rate funding caps for each building
4. **BIDDING** – Understanding the procurement/bidding options and requirements

## C2 PURCHASING/INSTALLATION TIMELINE

- Category 2 equipment related to Funding Year 2019 may be purchased/installed between April 1, 2019 – September 30, 2020.
- If you would like to make C2 purchases on or after April 1 but before you receive your E-Rate funding commitment letter, you may do so, but understand that you will be required to pay 100% of the cost and then seek reimbursement from USAC.
- Category 2 services, such as MIBS and basic maintenance, are considered *recurring* services and are only eligible for the 12 months of the actual funding year which is between July 1, 2019 – June 30, 2020.

# WHAT IS ELIGIBLE FOR C2 FUNDING?

## Category Two Service Types

- Internal Connections
- Basic Maintenance of Internal Connections
- Managed Internal Broadband Services

# WHAT IS ELIGIBLE FOR C2 FUNDING?

## Eligible Internal Connections

- Access points
- Cabling
- Caching
- Firewalls
- Switches
- Routers
- Racks
- UPS
- Wireless LAN Controllers
- Improvements, upgrades and software necessary to support eligible broadband internal connections components
- Functionalities listed here that can be virtualized in the cloud, and equipment that combines eligible functionalities are also eligible.

**NOTE: No voice or video equipment is eligible for Category 2 E-Rate funding.**

# WHAT IS ELIGIBLE FOR C2 FUNDING?

## Managed Internal Broadband Services (e.g., Managed Wi-Fi)

- Services provided by a third party
  - Operation
  - Management
  - And/or monitoring of eligible broadband internal connection components
- The third party may manage the school's equipment or provide the equipment as part of a lease.



# WHAT IS ELIGIBLE FOR C2 FUNDING?

## Managed Internal Broadband Services (e.g., Managed Wi-Fi)

- Eligibility Limitations
  - Supports only the equipment functions listed as eligible as broadband internal connections components.
  - Upfront charges as part of the contract are eligible.
    - Any ineligible internal connections components (e.g. tablets) must be cost-allocated out.

# WHAT IS ELIGIBLE FOR C2 FUNDING?

## Basic Maintenance of Internal Connections

- Support for basic maintenance of eligible internal connections such as:
  - Repair and upkeep of hardware
  - Wire and cable maintenance
  - Basic tech support
  - Configuration changes
- Support for BMIC is limited to actual work performed under the contract.

# WHAT IS ELIGIBLE FOR C2 FUNDING?

## Miscellaneous

- Eligible Charges
  - Taxes, surcharges and other similar reasonable charges
  - Lease fees to rent or lease eligible components
  - Shipping charges
  - Training
  - Installation and configuration
    - Installation may be provided by a third party

## C2 BUDGETS

- All schools are eligible to receive C2 funding up to a maximum 5-year pre-discount amount.
- C2 budgets are calculated for each individual school.
  - The budget for one entity cannot be shared with other entities within the district.
- The school can :
  - Spend the budget over a five-year period,
  - Use the entire budget in one funding year,
  - Allocate over five different funding years,
  - Spend the budget on one, two, or all three of the C2 service types.

# C2 BUDGETS

- The C2 budget is re-calculated every year.
  - More students in a school results in a budget increase.
  - Fewer students in a school results in a budget decrease.
    - ◇ If the C2 budget decreases below funding already spent for the five-year period, the school does not have to reimburse USAC for the discount on the difference between the budget and the pre-discount amount.
    - ◇ If a student attends more than one school (e.g., if the student from one school attends a vocational school in the afternoons), both schools should count that student for the purpose of calculating their respective budgets.

## C2 BUDGETS

- Pre-discount budget calculations are based on the number of students in the school, including both full-time and part-time students.
  - ◇ Total no. of students x \$156.23 =  
The pre- discount budget
    - $300 \times \$156.23 = \$46,869$
- The C2 budget multiplier is adjusted each year for inflation.

## C2 BUDGETS

- If you received C2 funding in FY 2015 - FY2018, you would subtract those pre-discount “committed” amounts from your calculated FY 2019 C2 budget to determine your remaining budget amount.
- For example, if your FY 2019 C2 budget is \$100,000, and you were approved for “pre-discount” amount of \$25,000 in FY 2015 and \$30,000 in FY 2016, the amount of your remaining C2 pre-discount budget would be \$45,000 ( $\$100,000 - \$25,000 - \$30,000$ ).

## OTHER CATEGORY 2 BUDGET INFORMATION

- Non-Instructional Facilities (NIFs) are school buildings with no classrooms (e.g., administrative buildings). NIFs do not have C2 budgets.
  - If the NIF is essential for the transport of the services to a school or library, the entities benefiting from the services must allocate the costs from their budgets.
  - If the NIF receives services for itself, those costs must be allocated out of the funding request.
- Read the [C2 Budget Tool User Guide](#) and check the [Category Two Budget Tool](#) using your school's entity numbers on the USAC Tools website to determine your budget.
  - Applicants can return unused committed funds from prior funding years using the FCC Form 500.



# DETERMINING YOUR NEEDS

Do your schools have robust Wi-Fi in every classroom?

## Best Practice/Recommendations

- Access Points -
  - 1 per classroom; more in common areas
  - 802.11ac Wave 1 recommended
- Controllers -
  - Cloud-based controllers offer flexibility
- Cabling –
  - Copper needs to be Cat5e or greater
  - New installs should be Cat6a
  - 10Gbps fiber between network closets

# DETERMINING YOUR NEEDS Cont.

- Switches -
  - 1Gbps Copper ports + 10Gbps fiber expansion
  - Support PoE+
- Routers –
  - Router ports should be able to scale with WAN bandwidth
- Firewalls –
  - Use funds to purchase if not receiving as a Category 1 service
  - Make sure hardware can scale with Internet bandwidth
- Managed Wi-Fi –
  - Do you have the staff/resources to adequately manage your Wi-Fi network?
  - Will you contract for management of district owned equipment, or include the hardware as part of the service?
  - If included in the service cost, what is the refresh rate?

# WHERE DO I START FOR WIRELESS?

- Access Points & Controllers
  - What kind of wireless system do I have now? (hardware, cloud-based, controller-less)
  - Is it meeting my needs? Do I want to change or keep? Or get managed services?
  - How many access points do I need? Will my school's construction (e.g. concrete, lathe and plaster, etc.) affect how many APs I need?
  - Will my existing controllers support an update to the next generation of Aps?
  - Because NIFs do not qualify for C2 funds, can existing hardware be utilized in those facilities?

# WHERE DO I START FOR WIRED?

- Cabling
  - What's my cabling standard?
  - How many network drops do I need in each classroom, office, common area?
  - Do I have fiber between my IDF & MDF?
- Switches
  - Are any of the switches only 10/100Mbps capable?
- Routers
  - How fast is my router port to the WAN and to the internal IDFs?
  - Is it going to be a bottle neck?

# START PLANNING NOW

- **SUMMER -**
  - Assess your needs
- **FALL -**
  - Plan and design your upgrade
  - Release E-Rate Form 470/RFP
- **Winter –**
  - Evaluate bids after 28-day waiting period
- **Spring –**
  - Select provider and apply for E-Rate funding by filing Form 471
- **Spring/Summer –**
  - Upgrade network

# OTHER C2 BUDGET CONSIDERATIONS

- Are you in a construction project?
- If so, do you plan to use your C2 funding?
- Things to consider:
  - ◇ Has the technology package gone out to bid yet?
  - ◇ If not, communicate with your team that you plan to request E-Rate funding for the eligible components.
  - ◇ You must file a Form 470, and include the RFP indicating the type components and estimated quantity.
  - ◇ E-Rate requires that you wait a minimum of 28-days before choosing a vendor, and the chosen vendor must have or request a Service Provider Identification Number (SPIN)

## ADDITIONAL RESOURCES



**Education Superhighway**, a nonprofit funded in part by the Bill and Melinda Gates foundation, provides RFP examples along with other tools I recommend when implementing a C2 project.

Go to: <https://upgrade.educationsuperhighway.org/purchase-implement/rfp-templates-guidance/>





# Contact Information

## E-Rate Support and Information

**Lorrie Germann:**

[lorrie.germann@education.ohio.gov](mailto:lorrie.germann@education.ohio.gov)

[www.ohio-k12.help/erate](http://www.ohio-k12.help/erate)

Office: 740-223-2420

Cell: 740-253-1153