How to "Steal" E-rate Funds…Legally

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WV Department of Education

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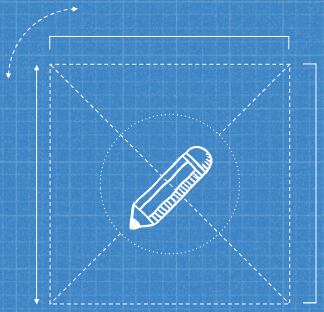
Member of State E-rate Coordinators' Alliance (SECA)

Member of State Education Directors Association (SETDA) E-rate Special Interest Group

Only state in the nation who files Internal Connections at the State Consortia level on behalf of applicants

2

"Those who plan do better than those who do not plan even though they rarely stick to their plan." ~ Winston Churchill



"It's a bad plan that admits of no modification."

~ Publilius Syrus

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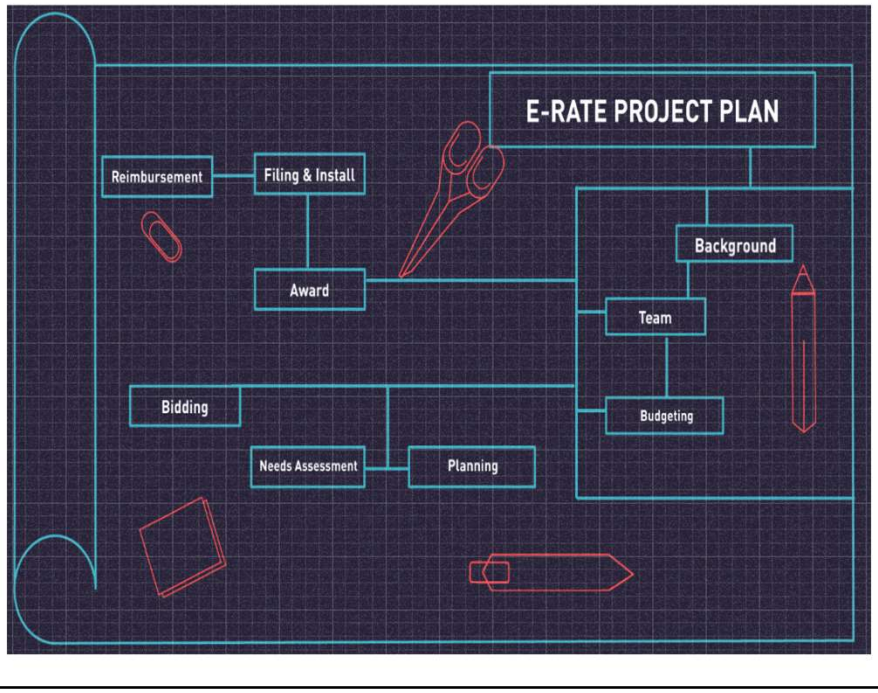


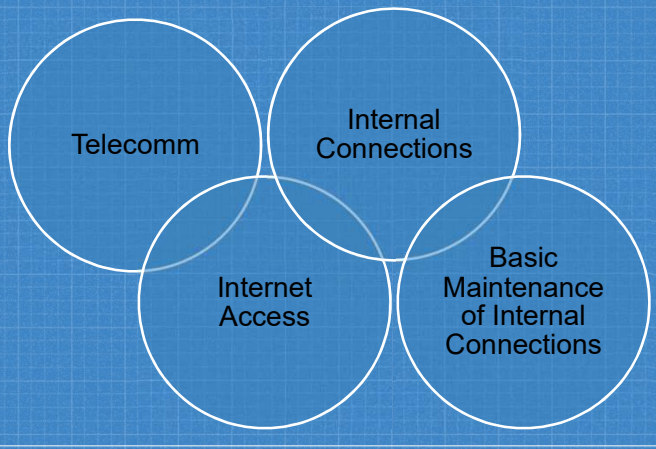
Background

E-Rate is the commonly used name for the Schools and Libraries Program of the Universal Service Fund, which is administered by the Universal Service Administrative Company under the direction of the Federal Communications Commission.

5

Funding is requested under four categories of service:

The Schools and Libraries Program supports connectivity–the conduit or pipeline for communications, using telecommunications services and/or the Internet.



6

Applying

Eligible schools, school districts and libraries may apply individually or as part of a consortium.

The entity paying the bills is the applicant.

In WV, we apply for:

- State Network backbone costs
- Statewide Internet Access
- Internal Connections (Category 2)

Districts apply for:

- Data transport circuits
- Internal connections

All Applicants must provide additional resources including:

End-user equipment (e.g., computers)

Software

Professional Development

Other elements that are necessary to utilize the connectivity (e.g., electrical)

7

E-rate Discounts

INCOME Measured by % of students eligible for the National School Lunch Program (NSLP)	Category 1 (C1)		Category 2 (C2)	
	URBAN Discount	**RURAL** Discount	**URBAN** Discount	**RURAL** Discount
Less than 1%	**20%**	**25%**	**20%**	**25%**
1%-19%	**40%**	**50%**	**40%**	**50%**
20%-34%	**50%**	**60%**	**50%**	**60%**
35%-49%	**60%**	**70%**	**60%**	**70%**
50%-74%	**80%**	**80%**	**80%**	**80%**
75%-100%	**90%**	**90%**	**85%**	**85%**

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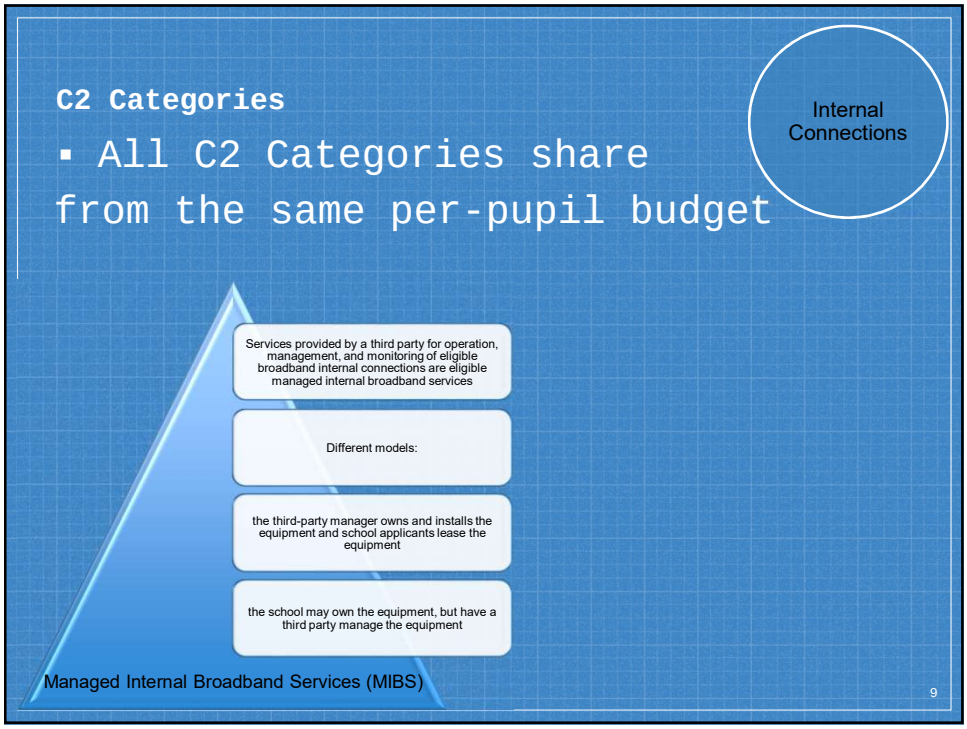
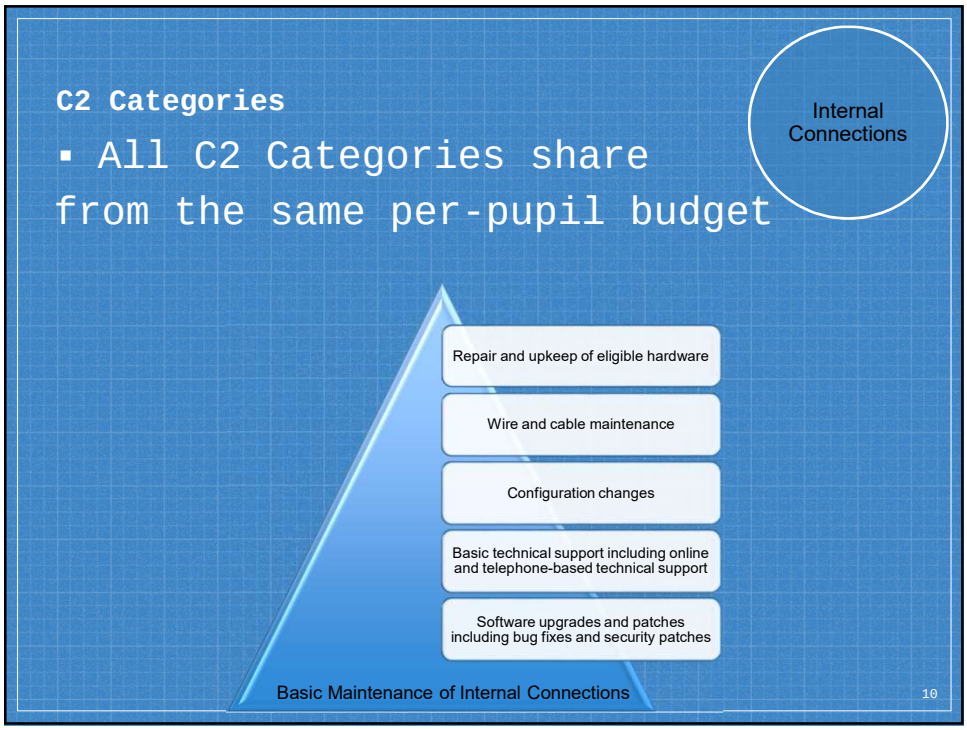
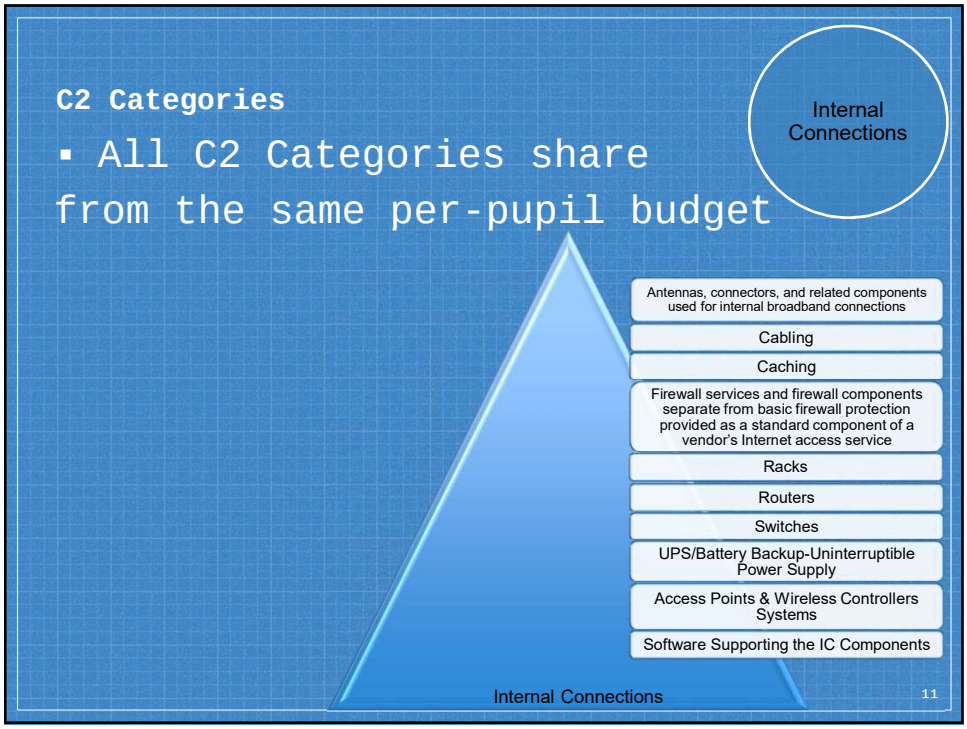
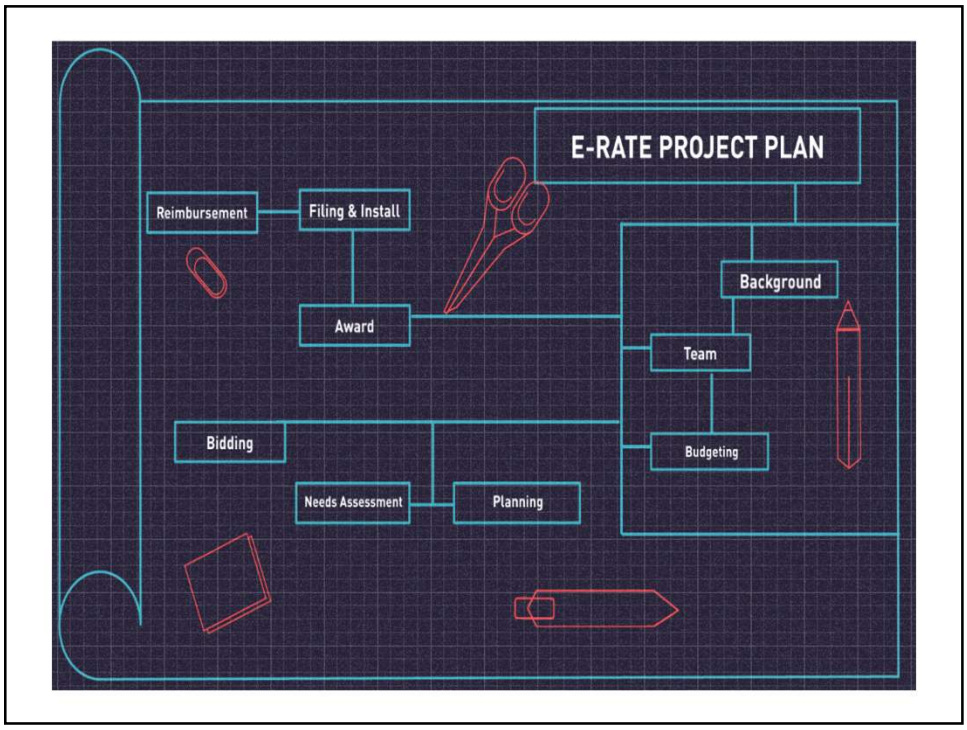

C2 Categories
▪ All C2 Categories share from the same per-pupil budget
Internal Connections
Services provided by a third party for operation, management, and monitoring of eligible broadband internal connections are eligible managed internal broadband services
Different models:
the third-party manager owns and installs the equipment and school applicants lease the equipment
the school may own the equipment, but have a third party manage the equipment
Managed Internal Broadband Services (MIBS)
9


C2 Categories
▪ All C2 Categories share from the same per-pupil budget
Internal Connections
Repair and upkeep of eligible hardware
Wire and cable maintenance
Configuration changes
Basic technical support including online and telephone-based technical support
Software upgrades and patches including bug fixes and security patches
Basic Maintenance of Internal Connections
10


C2 Categories
▪ All C2 Categories share from the same per-pupil budget
Internal Connections
Antennas, connectors, and related components used for internal broadband connections
Cabling
Caching
Firewall services and firewall components separate from basic firewall protection provided as a standard component of a vendor's Internet access service
Racks
Routers
Switches
UPS/Battery Backup-Uninterruptible Power Supply
Access Points & Wireless Controllers Systems
Software Supporting the IC Components
Internal Connections
11


E-RATE PROJECT PLAN
Reimbursement
Filing & Install
Award
Background
Team
Budgeting
Bidding
Needs Assessment
Planning

TEAM

- The team is key to a successful project
- All must work in conjunction, based on individual expertise
- It is essential the team understands the purpose and work together to design a strategy to ensure future success – and the significant role they play in shaping the plan

13

TEAM

Technology Staff
Director & Technician(s)

Expertise on the needs of the project and scope

Provides the details and estimates project costs

Reviews bids for accuracy

May be the E-rate filer

Financial Staff
CSBO

Expertise is the financial planning and procurement processes

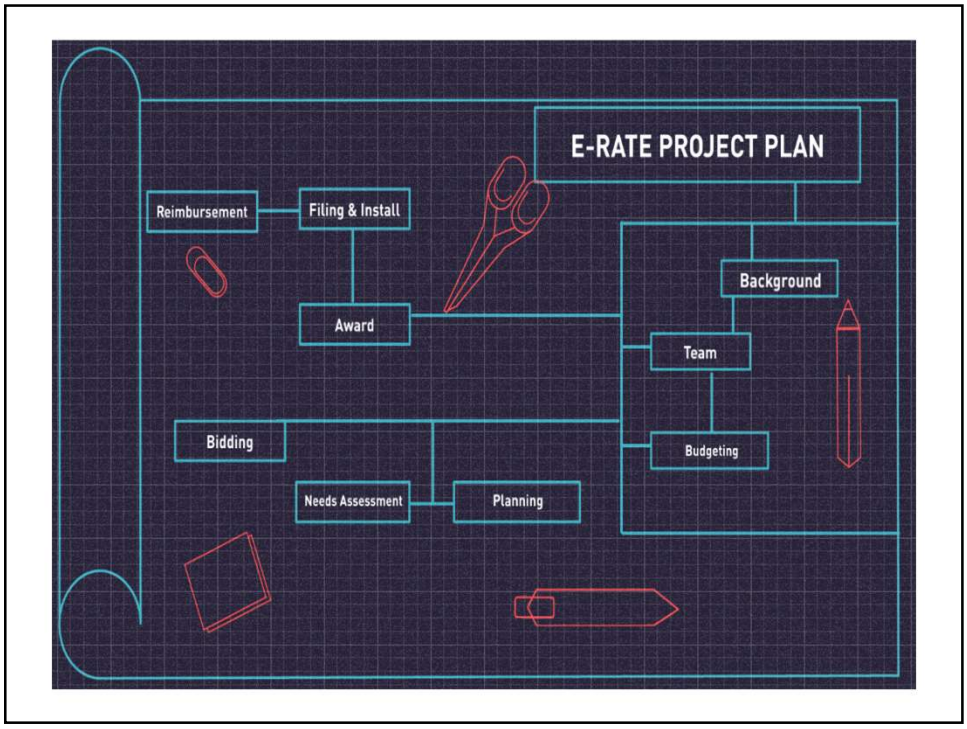
May be the E-rate filer

State E-rate Coordinator

Expertise in E-rate filing and procurement requirements, often also knowledgable in technology

May be the E-rate filer

14



USF E-rate Funding:

$2.25 billion adjusted annually for inflation

As part of modernization efforts, in 2015 the funding cap for E-rate was increased to $3.9 billion and the way in which funds were allocated was an adjusted – all in an attempt to "spread the wealth" beyond just a few large districts that had historically benefited most from the program.

16

USF E-rate Funding:

The E-Rate program funding cap for funding year 2019 is **$4,151,395,402.40**

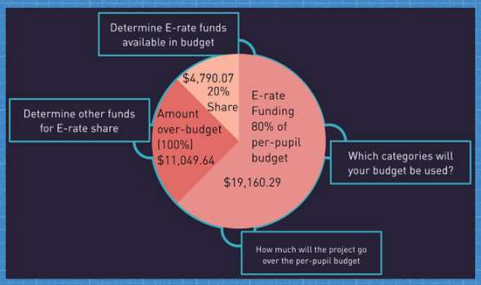
The Commission began indexing the funding cap to inflation in 2010 to ensure that E-Rate program funding keeps pace with the changing broadband and telecommunications needs of schools and libraries

17

BUDGETING

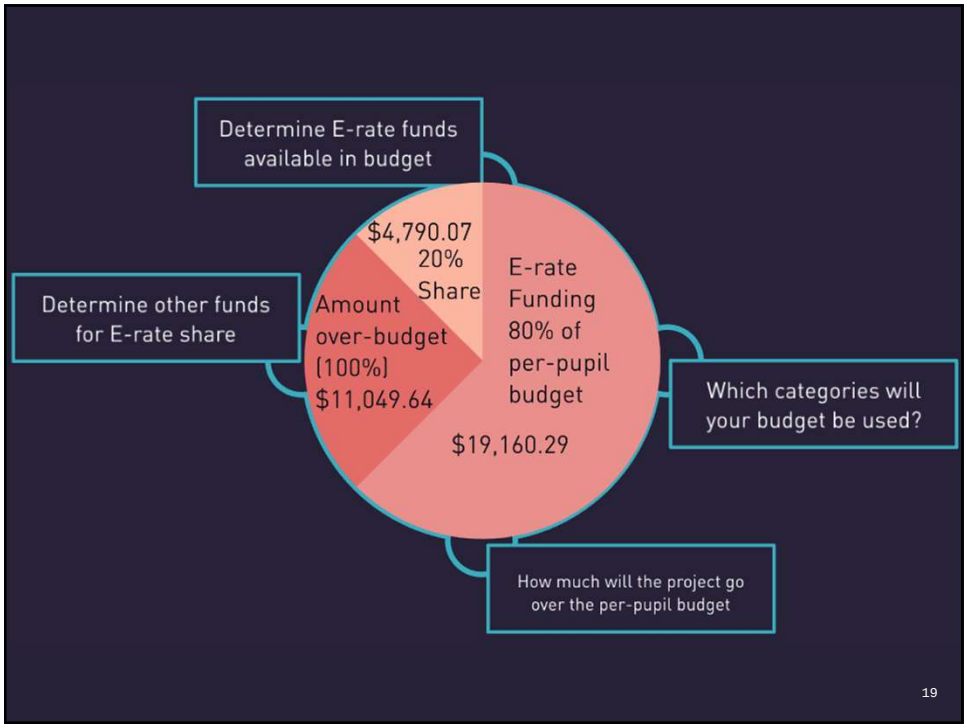
- Each year the $150 per pupil pre-discount budget is adjusted for inflation.
- Funding Year 2019's amount is:$159.669053922

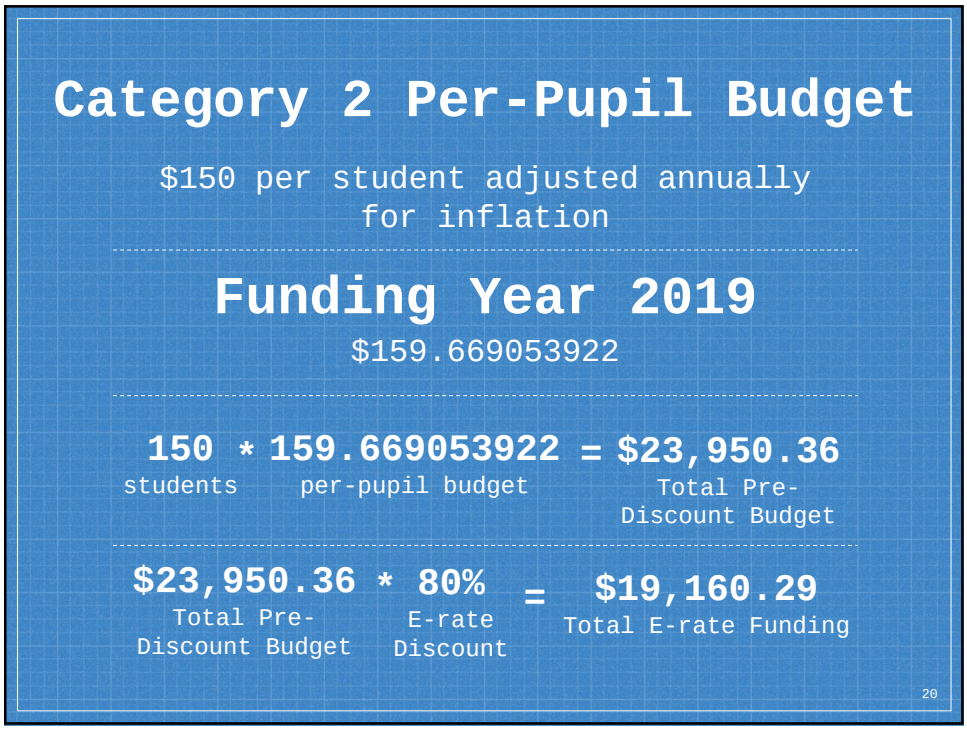
$35,000 Wireless LAN Project



A school of 150 students would have a pre-discount budget of $23,950.36

18

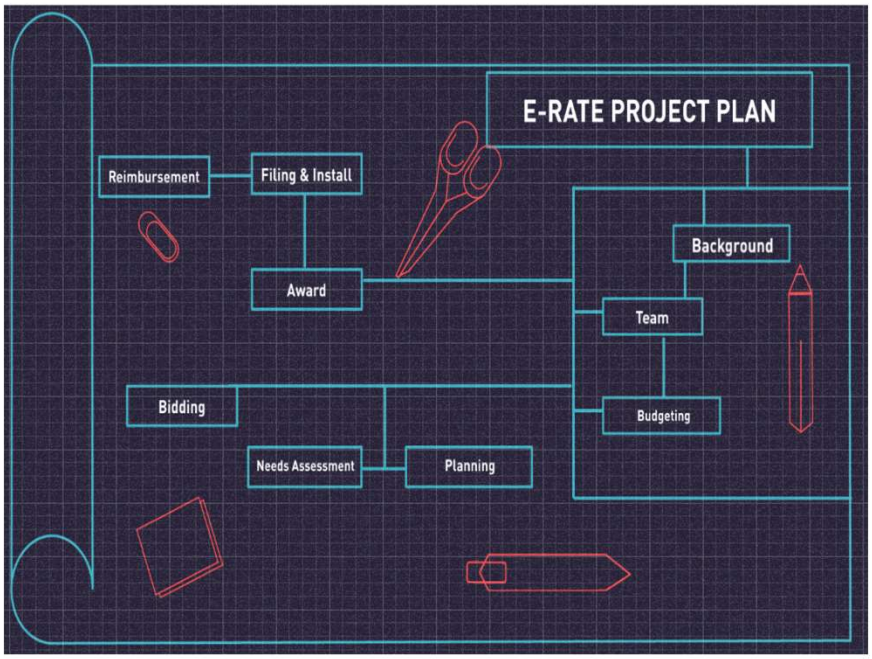

Determine E-rate funds available in budget
Determine other funds for E-rate share
Which categories will your budget be used?
How much will the project go over the per-pupil budget
$4,790.07
20% Share
Amount over-budget (100%) $11,049.64
E-rate Funding 80% of per-pupil budget
$19,160.29
19


Category 2 Per-Pupil Budget
$150 per student adjusted annually for inflation
Funding Year 2019
$159.669053922
150 * 159.669053922 = $23,950.36
students
per-pupil budget
Total Pre-Discount Budget
$23,950.36 * 80% = $19,160.29
Total Pre-Discount Budget
E-rate Discount
Total E-rate Funding
20

BUDGET

- Review state or national technology contracts to estimate pricing
  - May not necessary be eligible to use for purchase in your state/locality
- Examples:
  - AEPA
  - GSA
  - National IPA
  - NCPA
  - NJPA-Sourcewell

21



Four Keys to Successful Strategic Planning

1. Buy-in of all team members to the planning process and alignment of expectations of the outcome
   - You need the full attention and support of everyone involved
   - The time budgeted for strategic planning must be understood to be top priority by everyone participating

23

Four Keys to Successful Strategic Planning

2. Plan the necessary time and keep each planning meeting short and concise
   - Each meeting topic should be short and simple
   - Don’t make too broad an agenda or cram too many topics into a single meeting
   - Several short, concise, focused planning meetings are much better than an all-day marathon

24

Four Keys to Successful Strategic Planning

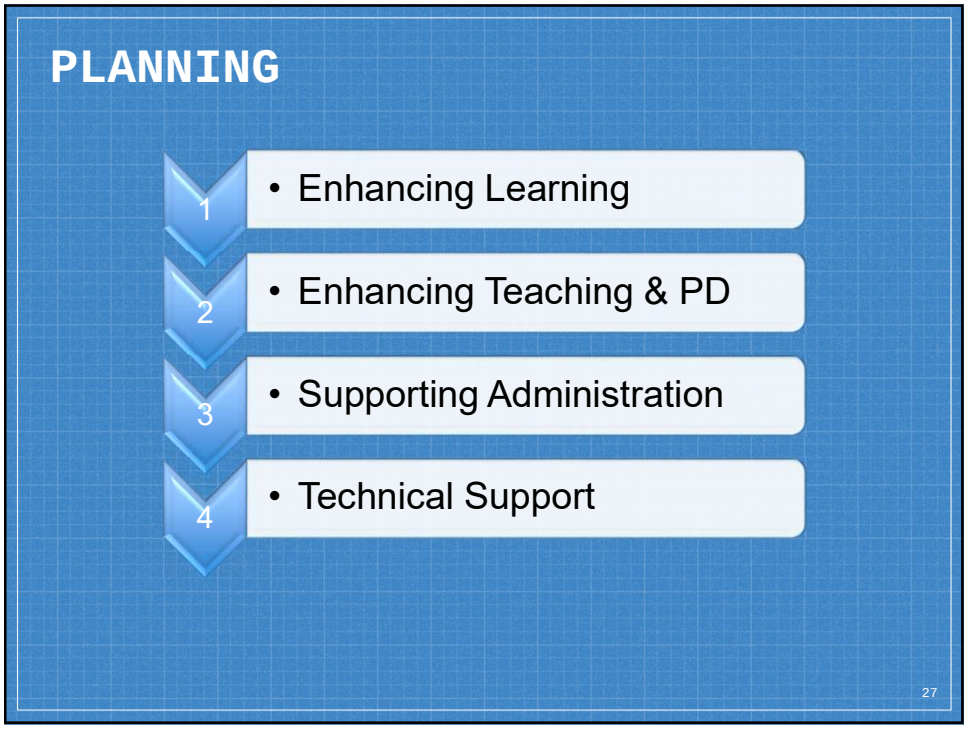
3. Have a detailed agenda, with a clear goal
   - Every planning meeting needs one
   - Should be circulated prior to the meeting along with any reports or other materials that need to be reviewed
   - Should include time allocated for each item to be discussed
   - Should also include a goal or statement of purpose for the meeting, including how the meeting fits into the planning process so attendees know what the outcome needs to be

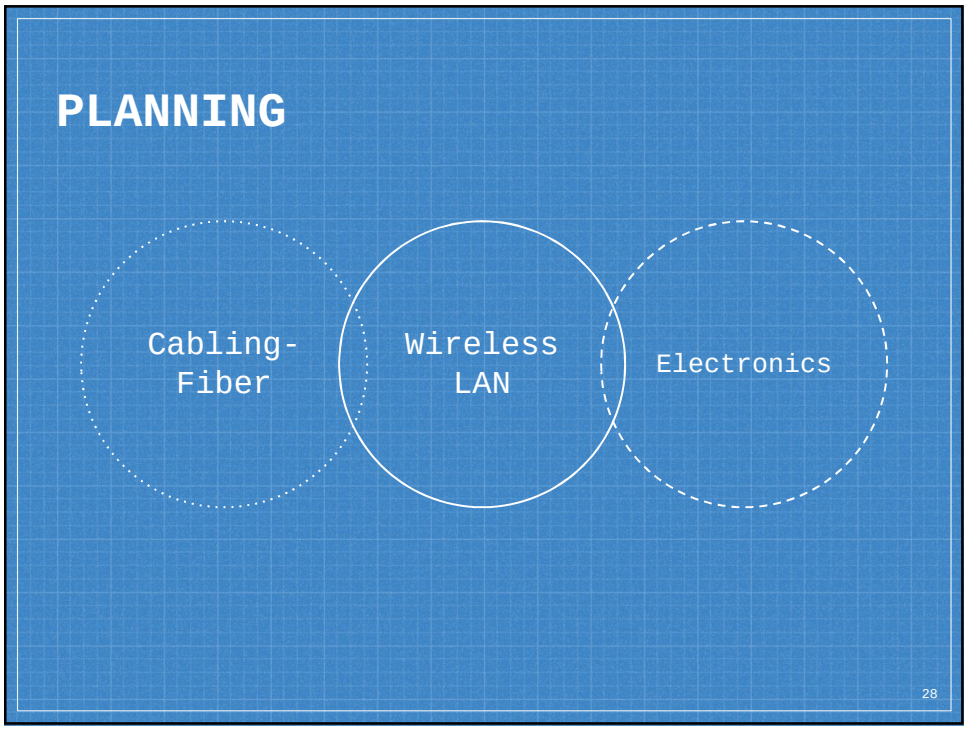
25

Four Keys to Successful Strategic Planning

4. Assign key roles to keep each meeting on track
   - The following three roles are vital for keeping things on track:
     - Chair- responsible for leading the meeting and keeping the group focused on the agenda items
     - Timekeeper-every meeting begin on time and end on time
     - Scribe- takes meeting minutes circulates to all participants. Minutes should include:
       - Detailed action items
       - Who is responsible
       - Delivery date

26


PLANNING
1
• Enhancing Learning
2
• Enhancing Teaching & PD
3
• Supporting Administration
4
• Technical Support
27

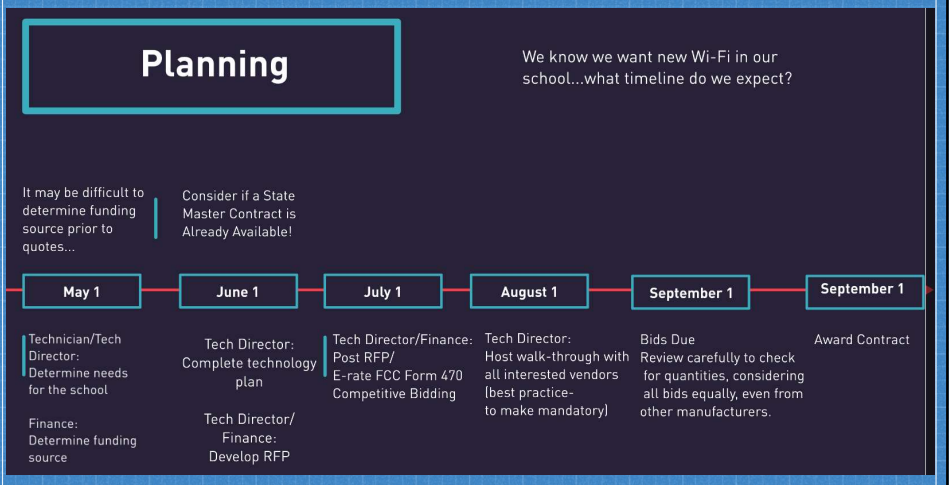

PLANNING
Cabling-
Fiber
Wireless
LAN
Electronics
28

PLANNING-Other Considerations

- Do you want to stick with current manufacturer platform?
- Consider a cheaper, solid competitor?
- How many devices are existing?
  - Hardwired
  - Wireless
- What is the future plan for devices?
  - 1:1
  - Increasing ratio student:device

29

TIMELINES



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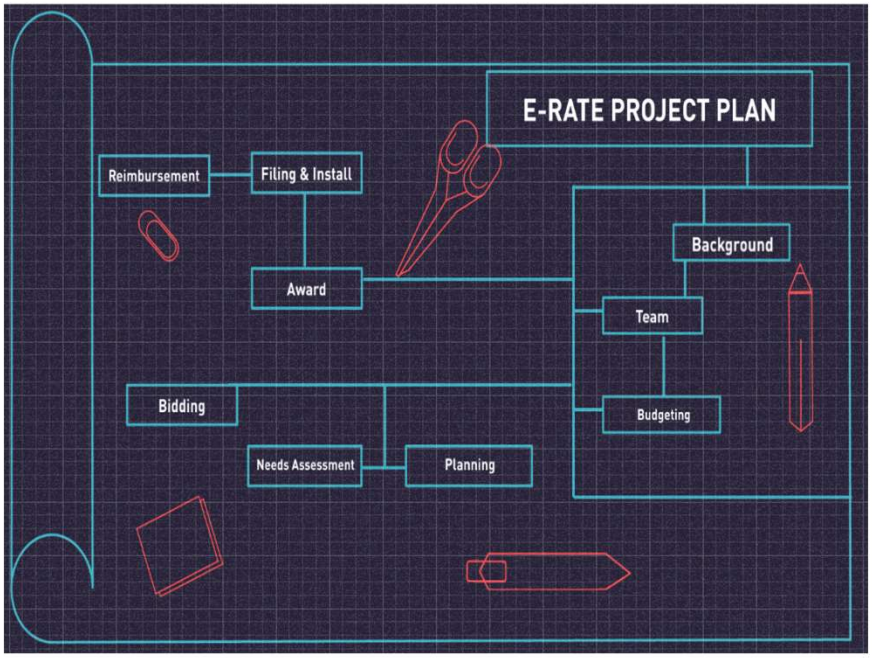

NEEDS ASSESSMENT

Cabling

May or may not require

Do not want empty drops 3-5 years from now…avoid "rip and replace"

Consider future of technology devices, 1:1 implementations

Ensure Wireless Access points in WLAN have upgraded drops to support—Category 6? 6A or 8?

Are fiber backbones 1Gig or 10Gig?

Single Mode (8.25um) should be replaced by 50um multi-mode. 6 strand, 12 strand or hybrid Single/multi-mode

Electronics

Are the electronics greater than 5 years old?

What is End of Life/End of Sale date for the current network electronics?

Fiber backbone will determine needs—do not need Mgig or 10Gig switches on a 1Gig backbone

Most networks will be fine with one 10gig switch in each closet, then the rest in the stack to be 1Gig

Can switches support power needs of the Access Points?

Wireless LAN

Do you need a new controller?

School-based? District-wide?

Virtual? Cloud-based? Hardware-based?

Diversity to avoid single point of failure *(duplicate services not E-rate eligible)*

Licensing if augmenting existing District-WLAN

Future implementations 1:1—coverage considerations

32

NEEDS ASSESSMENT-Other Considerations

- UPS-Uninterruptible Power Supply
  - Consider power needs/standards
  - Consider space-shoebox
  - Network management capabilities?
    - Remote access
    - NOT E-rate eligible
- Enclosed Cabinets/Racks
  - Consider security (E-rate requirement)
    - Open to students
    - Behind locked door or restricted access (office)
  - Consider Environment
    - Dusty custodial closet
    - Ventilation
  - Ensure grounding
  - Consider space-smaller, swinging

33

NEEDS ASSESSMENT-Other Considerations

- Access Point Considerations
  - 802.11ac
    - Current benchmark standard, operating in 5Ghz frequency space
    - Supports data rates up to 3.46Gbps
  - 802.11n
    - 2.4GHz frequency
    - Provides support for older client devices with 802.11b/g/n radios
- Streams
  - The more bandwidth or the faster the devices' speed on the network the better the performance for everyone overall who is connected to the same access point.
  - 1 straw versus 3 straws in your drink. 3 straws in a drink will allow you to consume your beverage 3x faster than someone with only 1 straw in their drink
  - Need to look at the devices on your network and if the majority can take advantage of the extra send/receive (TX/RX) stream

34

NEEDS ASSESSMENT-Other Considerations

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35

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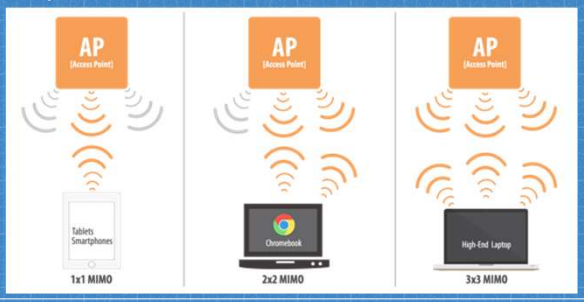

36

Typical Device Profile Breakdown

- 1x1 MIMO
  - Single antenna and radio can communicate via one streams of transmit/receive
    - Mobile phones
    - iPads, Android & Windows tablets
- 2x2 MIMO
  - Dual antennas and radios can communicate via two streams of transmit/receive
    - Chromebooks, standard notebooks & laptops
- 3x3 MIMO
  - Three antennas and radios can communicate via three streams of transmit/receive
    - High end laptops (e.g. MacBook Air/Business Class Units from Dell, Lenovo & HP)

37

Typical Device Profile Breakdown

- The bad news is that most laptops and tablets only come with 2×2 MIMO technology, and most smart phones have to settle for 1×1 MIMO
  - A smart phone can only achieve a maximum of 433 Mbit/s.
- Consider the future for the next 3-5 years and device types anticipated both for purchase and device technology advances
- If the majority of the device types are going to be 1x1 or 2x2 devices it doesn’t make sense to spend the extra money to provide an optimal experience for a very small percentage of devices
  - 20% devices capable of 3x3 MIMO
  - 30 % devices capable of 2x2 MIMO
  - 50% devices capable of 1x1 MIMO

38

PLANNING-Other Considerations

- Access Point Considerations
- Streams
  - 4x4
    - Useful for high-performance applications designed to provide Wi-Fi to a large number of clients (e.g. gym, auditorium, etc.)
    - Much more expensive
    - Need a more powerful PoE power supply
    - Need an Ethernet connection of over 1 Gbps to reach full potential, an additional cost
  - Multi-user, Multiple Input, Multiple Output (MU-MIMO) is different
    - Typically Wave 2 APs
    - The first mobile phone will connect to the first antenna and the second to the access point's second antenna
    - Overall data rate will be doubled, as will the maximum number of clients that connect to the access point

39

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40

PLANNING-Other Considerations

- Access Point Considerations
- 3×3 and 4×4 MIMO only make sense if they support MU-MIMO to boost user capacity
- Devices also have to support MU-MIMO technology
  - Unfortunately, this is not always the case, even with newer smart phones, but it is only a matter of time…

41

PLANNING-Other Considerations

- Access Point Considerations
  - Wave 1
    - 11ac is supported by Wave 1 products using 20, 40 and 80-MHz channels all in the 5-GHz bandwidth
    - Data rates for wave 1 products are capable of supporting up to 1.3 Gbps with 3 streams
    - Performance speeds of Wave 1 can reach:
      - 750Mbps for a single 3 stream client
      - 250Mbps for something like a smartphone that is single stream
      - However, with Wi-Fi being shared, speed and performance is directly related to the number of people sharing a network and what it can support

42

PLANNING-Other Considerations

- Access Point Considerations
  - Wave 2
    - Theoretically using 160-MHz bandwidth means more users can be supported with better performance
    - Pperating at 160-MHz requires a clear channel and may mean that most AP's continue to use both 80-MHz and 40-MHz
    - 3×3 MIMO access point, or even better, a 4×4 MIMO one, is only advisable for Wave 2 models
  - Coverage
    - The distance between deployed access points can impact location performance
  - Security-Covers (Gym, cafeteria, accessible)

43

PLANNING-Other Considerations

- Access Point Considerations
  - Placement is important
  - Distributed mainly throughout interior spaces
  - avoid placing access point antennas directly against large objects such as steel columns or being blocked at close range by large objects
  - Security is a concern—high to avoid access by children

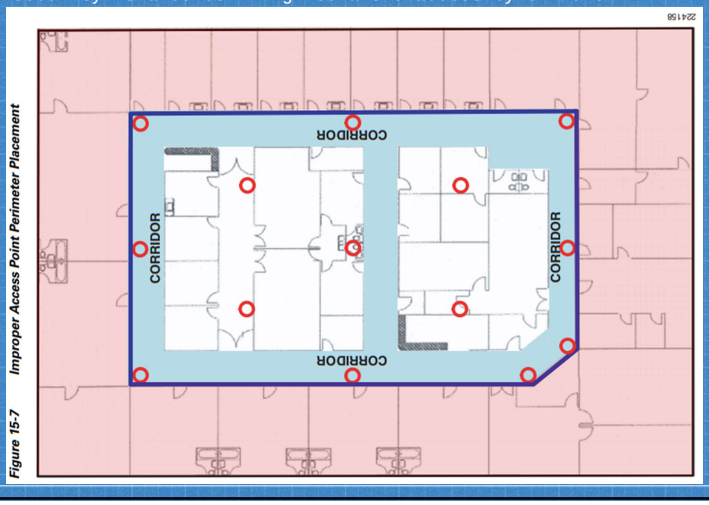

Figure 15-7 Improper Access Point Perimeter Placement

44

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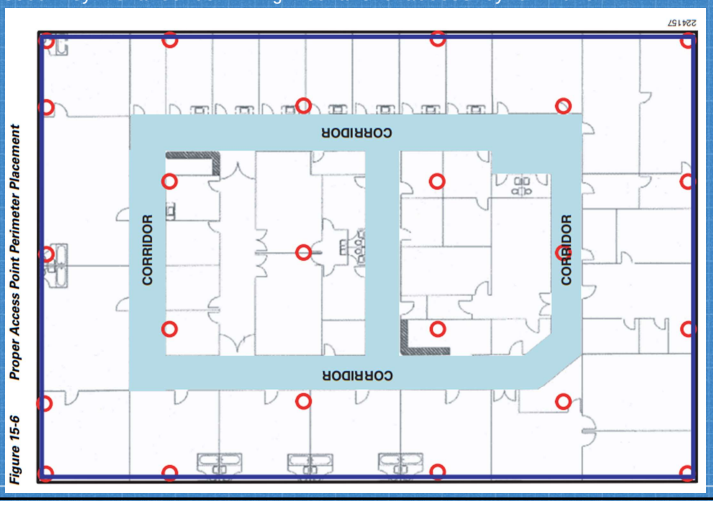

Figure 15-6 Proper Access Point Perimeter Placement

45

PLANNING-Other Considerations

- Access Point Considerations
  - Objects that interfere with your Wi-Fi Signal:
    - Electronics
      - TVs, baby monitors, refrigerators, game console controllers, and wireless speakers
    - Energy Efficient Windows
      - windows may include low-emissivity (low-E) coatings,very thin transparent metal
    - Fish Tanks
      - Wireless signals can struggle to pass through water, so fish tanks, especially larger ones, present a significant obstacle
      - The tank is likely absorbing a great deal of the Wi-Fi signal
      - Move your router as far from the tank as possible
    - Metallic Objects/Surfaces (e.g. steel, mirrors)
    - Thick walls
      - Troublesome materials include concrete, metal, brick, stone, ceramic, and mirrors
    - Walls containing insulation material, water pipes, and air ducts
    - Wireless security cameras

46

PLANNING-Other Considerations

- **Switch Considerations**
  - Layer 2
    - For typical applications Layer 2 switches sufficient for all closets/distribution frames
  - Layer 3
    - A full Layer 3 switch should only be needed where you are replacing the existing router or terminating an ISP (Internet Service Provider) connection Typically in core network-Data Centers, large campus network environments
    - Handle very large traffic loads
    - 10Gig uplinks
    - Offload work from main router—in some cases, replace
    - Offer high bandwidth links between switches
    - Can be used to apply Quality of Service (QoS) – Helpful in VoIP *(but E-rate does not fund equipment serving video or VoIP)*
    - Increased power & security
    - Denial of Service (DoS) attack prevention
    - ARP inspection - rejects invalid and malicious ARP packets

47

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    - ARP inspection - rejects invalid and malicious ARP packets

48

PLANNING-Other Considerations

- Switch Considerations
  - Power-over-Ethernet (PoE)
  - A technology for local area networks that allows the electrical current necessary for the operation of each device to be carried by the data cables rather than by power cords
  - Original standard for PoE was 802.3af which allocated up to 15.4 watts per port for remote devices
  - Was initially was utilized for Voice over IP telephones, wireless access points and security cameras
    - *E-rate will only fund network electronics that support the Wireless Access Points—cost-allocations must be made to remove funding for switches or ports that serve IP phones and cameras*
  - It has since grown to powering devices such as RF Proximity sensors, pan/tilt/zoom controls for cameras, Laptops, thin client workstations and even LED lighting—none eligible for E-rate support

49

PLANNING-Other Considerations

- Switch Considerations
  - Power-over-Ethernet (PoE)
    - Standards

Access Point	Wattage	Standard
802.3af	15.4W	PoE (requires 2 ports)
802.3at	30.0W	PoE+ (requires 2 ports)
802.3bt Type 3	60.0W	PoE++ (requires 4 ports)
802.3bt Type 4	100W	High Power PoE (requires 4 ports)

  - Power Supplies
    - 1100

Switch Type	Port Power
24 Port Switch	24 ports @ 30W 24 ports @ 15.4W
48 Port Switch	28 ports @ 30W 48 ports @ 15.4W

    - 715

Switch Type	Port Power
24 Port Switch	16 ports @ 30W 24 ports @ 15.4W
48 Port Switch	16 ports @ 30W 24 ports @ 15.4W

50

PLANNING-Other Considerations

- Switch Considerations
  - Power Supplies
  - It is cost effective to have PoE capabilities in every switch in a closet stack (715-750watt PSU)
  - 1-2 switches in the stack for the closet: you may want to increase the power supply in at least one switch to 1100 watts or more to provide enough power for PoE ports for current use
  - 3+ switches: you should have enough total power in your switches with a 715-750 watt power supply based on equally spreading out the active devices requiring power between switches

51

PLANNING-Other Considerations

- Modules/Transceivers

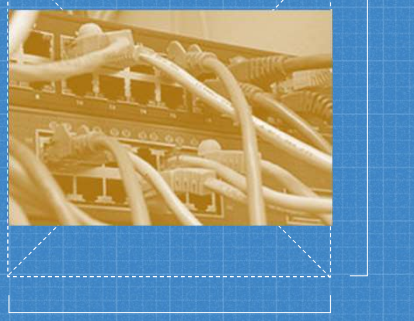
  Switch will dictate which is required
  - GBIC (Gigabit Interface Converter)
    - Slowly becoming more of a legacy in the fiber optic technology and is being replaced by SFP
    - Some older devices cannot be updated to support SFP
  - "SFP" stands for "Small Form-factor Pluggable"
    - SFP ports will work up to 1Gbps
    - Small size of SFP (almost half the volume of GBIC) allows having more interfaces on a line card or a switch.
  - SFP+ (an expansion of the SFP standard)
    - SFP+ will support up to 10Gbps

52

All of these components should be identified in your bid request to ensure appropriate results

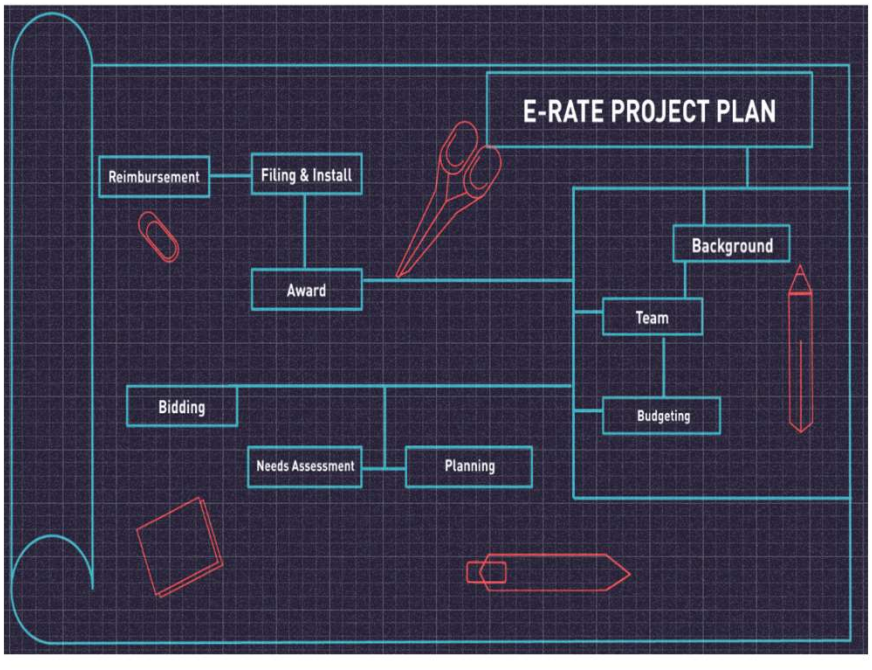
If you only ask for a switch, that may be all you are quoted…

As many specifics as possible will avoid over or under-building of networks



COST SAVINGS!

53



BIDDING

- E-rate requires applicants follow all federal, E-rate, state and local laws and policies
- Must post a Form 470 and wait 28 days before considering bids and awarding
- RFP depends on state/local laws/policies and depth of project
  - Highly recommended for Category 2 projects!
- Start early, leave time for issues and possible rebids!

55

BIDDING

- Best Practice to request vendors provide scope of work and quote
- Helpful to require vendor provides a USAC Form 471 bulk upload spreadsheet for Category 2—eliminates time spent on inputting every line item
  - Perfect in large projects!
  - Ensures accuracy
- Limit mandatories to aide in vendor response accuracy—alleviates disqualifications
  - Recommendation to utilize a mandatory of being in a set Gartner Quadrants to ensure that the equipment is from a quality manufacturer and has proven to be solid
  - Avoid utilizing too narrow and thus establishing too limiting a scope—difficult to prove cost-effectiveness

56

BIDDING

- Require that vendor only communicate with technology director for establishing installations and require sign off that work was completed (separate from system acceptance)
- Best practice to require that vendor allows a period of time for system acceptance once the system is running without issue prior to invoicing (e.g. 30 days)
- Recommended to require vendor to provide during installation and following:
  - CAD map of final project equipment location
  - E-rate Asset Inventory showing location and serial numbers of all serialized equipment (some may be difficult to obtain after install)
  - Packing slips
  - Test results for all fiber & cabling that identifies the room number and drop location for each room
  - IP addresses for any equipment
  - Logins for equipment (e.g. controller)
  - Rack Information Forms
  - Installer certifications of testing and completion dates

57

BIDDING

- The state may post a Form 470 to establish a State Master Contract on behalf of Applicants
  - Saves applicants time and headaches of bidding
  - Will require mini-bids if more than one manufacturer is available and/or more than one vendor (multiple-award)
- Applicants can also post a 470 and use the state contract as a bid
  - If a state contract exists, ***should*** be considering that as a bid, per USAC guidance

58

BIDDING

- Walkthroughs are ***highly recommended***
  - Best practice is to make mandatory
- Provide a map of the school, including classroom numbers, identifying distribution closets
- Include room in posting timeline for vendors to make travel arrangements by increasing days between posting and walkthrough and days between walkthrough and deadline for bids

59

BIDDING

- Ensure that contract dates will cover the fiscal year (7/1-6/30) and include contingencies for late funding, project delays or correction requests via requesting options for signed, voluntary renewals (1-2 years total)
- E-rate deadline to install non-recurring equipment is 9/30
  - Some may have requirements not to exceed fiscal year for contracts
- Include funding-out clauses with written notice to protect from contractual requirements without funding commitments

60

BIDDING

- Best practice—state whether you want to pay in full up front and get reimbursed by USAC (you file the paperwork) or wait until funding and have the vendor discount (can make mandatory or give points for offering it)
- Include "Most Favored Nation" and Lowest Corresponding price requirement language to ensure vendors treat all similarly situated entities the same
- Equivalent bid responses **must** be considered equally under E-rate rules

61

BIDDING

- Include language that ensures that if a vendor provides discounted billing and misses the ***strict*** invoicing deadlines that they cannot come back on the applicant
- Evaluation is where you can build in weighting for your essential needs
- Have evaluation matrix completed before posting bids & include in the RFP/470 release

62

BID EVALUATION EXAMPLE

Criteria	Possible Points	Vendor/ Manufacturer A	Vendor/ Manufacturer B	Vendor/ Manufacturer C
Cost of Solution Eligible Goods and Services*	40*			
Ability to manage LAN network (Examples: Intrusion prevention, Interference detection & avoidance, Load Balancing, Coverage hole detection and correction, Authentication, Interoperability with existing equipment)	30			
Cost to Train or Certify School Staff on new or existing Manufacturer's Equipment	20			
Previous Manufacturer Experience with the District	10			
Total	100			

63

BIDDING

- Having an RFP also allows a process for Q&A through an addendum document—ideally set deadline for Q&A in RFP—leaving enough time for vendors to adjust bid responses
- Don’t answer vendor questions via email or phone
- Ask them to provide all questions in written form
- Compile and submit all questions and answers in EPC

64

BIDDING

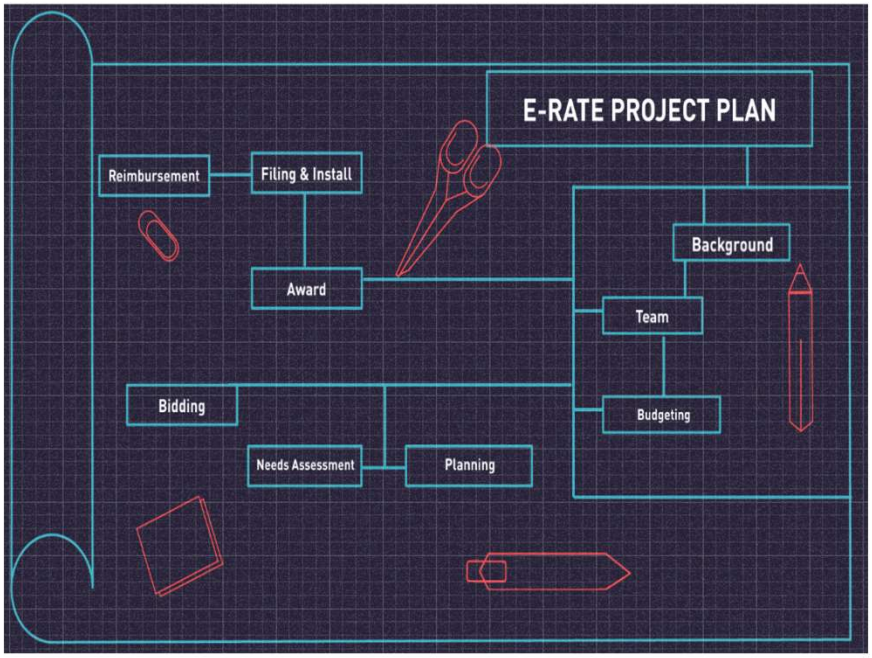
- Cardinal Changes
  Any significant changes that are outside the scope of your original project or service requests
  - Service providers that are not interested in bidding on the services contained in the original scope of your project or services may be interested in bidding on your changed scope, and vice versa
  - If your changes can fit into the description of your existing FCC Form 470 – and you attached at least one RFP document to your original form – you can add one or more RFP documents to provide information about the change(s) you want to make
    - *You will have to start a new 28-day waiting period and count the days yourself*

65

BIDDING

- Cardinal Changes
- *USAC encourages you to post a new FCC Form 470 if you are making changes to avoid any confusion*
  - *You can attach a document noting the cancellation to the RFP Bid Documents of that form and refer potential bidders to your new FCC Form 470*
- For certain changes, you MUST post a new FCC Form 470. Here are some examples:
  - You certified your 470 without attaching any RFP documents, but have now issued an RFP document and need to attach it
  - You did not post services for a service type, and now realize that you need to post for services in that service type (e.g. basic maintenance of internal connections)
  - Your state or locate competitive bidding rules and regulations require you to post a new form

66



EVALUATION

- Review all bids to ensure that the requested quantity (be sure to adjust for any Q&A)
- Make sure that components necessary to make the network solution complete were all included:
  - Wireless-Licenses, patch cables, plastic covers, correctly quoted the streams (2x2, 3x3, 4x4)
  - Switches-Licenses, modules, power supplies, power cords
  - Cabling-patch cables
- Reach out for bid clarifications, if necessary:
  - If Access Point stream isn't correct, why?
    - Could be that manufacturer doesn't offer that combination (e.g., they may not offer a Wave 2, 3x3)
    - If quantities or power supplies do not match the request

68

BID EVALUATION EXAMPLE

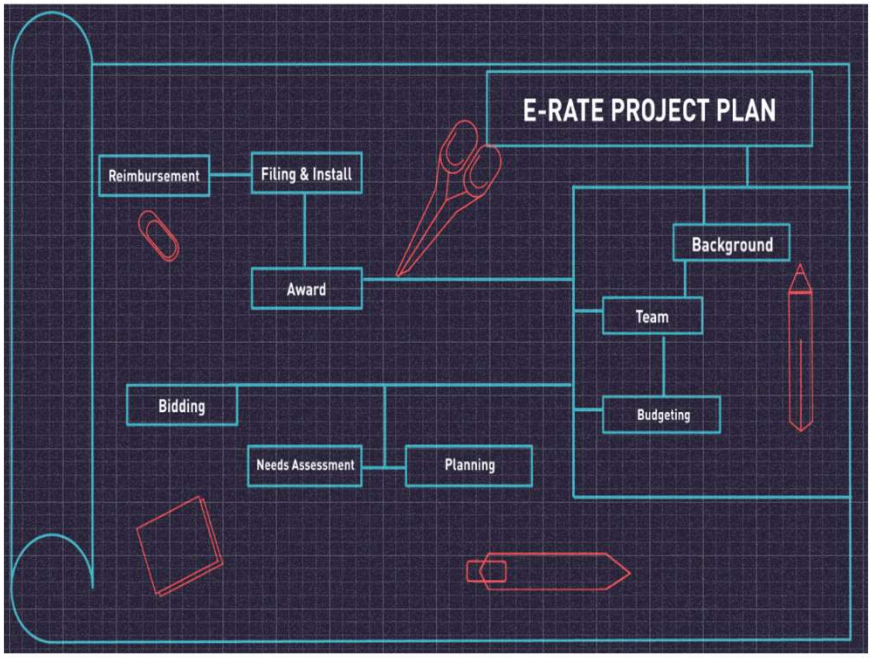
Criteria	Possible Points	Vendor/ Manufacturer A	Vendor/ Manufacturer B	Vendor/ Manufacturer C
Cost of Solution Eligible Goods and Services*	40*	40	35	30
Ability to manage LAN network (Examples: Intrusion prevention, Interference detection & avoidance, Load Balancing, Coverage hole detection and correction, Authentication, Interoperability with existing equipment)	30	30	0	15
Cost to Train or Certify School Staff on new or existing Manufacturer's Equipment	20	20	0	10
Previous Manufacturer Experience with the District	10	10	0	10
Total	100	100	35	65

69

AWARD

- Document any vendors/bids that are disqualified and provide adequate explanations and details why they were disqualified
- Keep a list of all members of the evaluation committee and documentation of the evaluation
  - E-rate rules require document retention for 10 years from the last date of service
- Notify all bidding vendors of the winning vendor
- Follow up with bidding vendor to proceed with contract process
- Obtain E-rate bulk upload spreadsheets required in RFP

70



Tips for Filing E-rate

- Start early!
- Utilize bulk uploads to expedite application process
- Ensure that Recipients of Service are the only ones on the request
  - Under audit, the equipment must be located in that school referenced in the application
  - Application must align with inventory
- Easiest to do one funding request per school

72

Tips for Filing E-rate

- May want to utilized a shared approach when looking at licenses for access points on a District- Centralized Controller
  - Qty 100 Licenses Required
  - Reduced cost in bulk purchases
  - Most likely won't be able to be split evenly for each school using one FRN
  - Can always put licenses on a separate funding request

73

Tips for Filing E-rate

- Budget must be considered for shared items (e.g. centralized district-wide controller, licenses)
  - Best practice, if there are not clear quantities for who will use the controller, is to not take E-rate on it—hard to determine budget amounts and cost-allocations—and they can change over time
  - If all quantities are known can cost-allocate ineligible use (i.e. NIF APs)
  - Allocation of budget/cost-allocation is most favorable at AP level, if possible

74

Tips for Filing E-rate

- Anything unused in that year isn't E-rate eligible (e.g. spare licenses)
- Spare parts are not eligible
- Drops and switch ports for phones & security cameras are not eligible
  - Best practice have a separate switch for those items and cost allocate a portion of the port used to stack switches

75

Cost-allocation-Effectiveness Example

- Cost allocations must based on tangible criteria that provide a realistic result
- Options for Cost-allocations:
  - Per AP Licenses for Qty 200 @ $4,000 each
    - Determine unit cost
    - $4,000/100=$40 each
    - Determine unused license count and cost allocate that off the top
    - Split budget costs per qty APs at each location
  - Cost allocation by number of locations

76

Cost-allocation Effectiveness Example Per AP VS Per Site

School	Qty	Unit Price Per AP	Cost per site
Elementary A	25	$1,000	$1,186.66
Elementary B	30	$1,200	$1,186.66
Elementary C	30	$1,200	$1,186.66
Middle School	34	$1,360	$1,186.68
High School	41	$1,640	$1,186.68
District Board Office (NOT E-rate Eligible for C2)	18	$720	COST-ALLOCATE Ineligible $1,186.66
Unused licenses (Can be used for future growth)	22	$880	COST-ALLOCATE Ineligible $880

77

Tips for Filing E-rate

- Requests must be reduced to budget maximum
- Remove line items that are zeroed out due to being over-budget
- Cost-allocate items to ensure every penny is utilized
- Split line items or find a qty 1 item to reduce to the penny

78

INSTALLATION

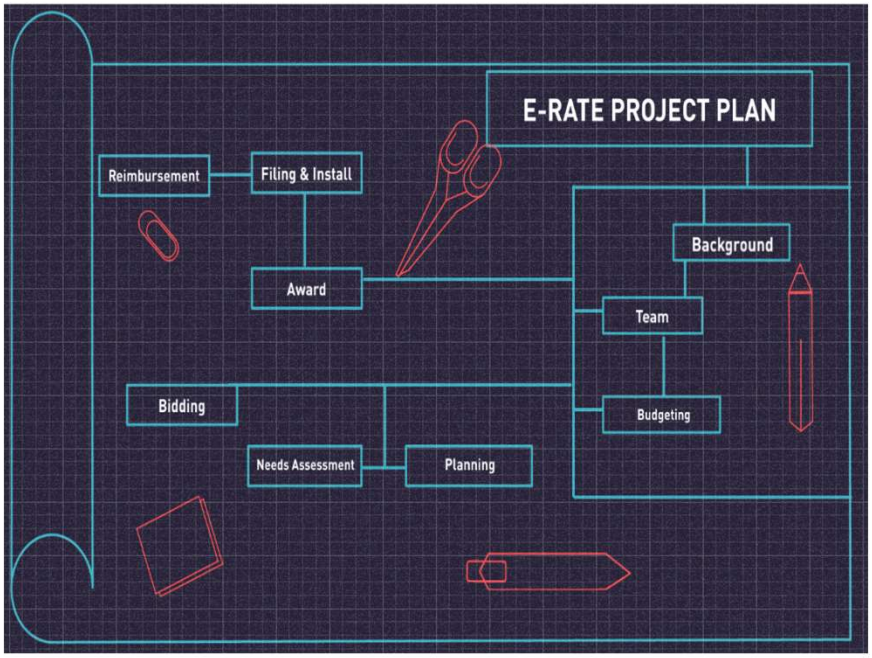
- It is important to document specific milestones and information for E-rate Document Retention Requirements
  - Purchase Order
  - Packing slips/Shipping tracking to show receipt
  - Date Installation is complete
  - E-rate Asset Inventory (All serialized equipment)
  - Cabling drop test results showing all successful testing
  - Invoicing includes:
    - Vendor's name exactly as it appears on record with USAC
    - District & School names as they appear in EPC
    - FRN number
    - Discount percentage (if discounted)
    - Line item invoicing

79

Document Retention requirements

- All ***applicants*** **and** ***service providers*** are required to retain documentation for a period of ***at least 10 years*** after the latter of the *last day of the applicable funding year* or the *service delivery deadline* for the funding request, including, but not limited to:
  - Receipt and delivery records relating to pre-bidding
  - Bidding
  - Contracts
  - Application process
  - Invoices
  - Provision of services;
  - Other matters relating to the administration of universal service

80



REIMBURSEMENT OPTIONS

- **BEAR (Billed Entity Applicant Reimbursement Form)**
  - You pay in full
  - You must have a login for the BEAR Legacy System (separate from EPC)
  - You must have an approved Form 478 (establishes account for direct deposit)
  - You file Form 472 BEAR
  - Electronic Funds Transfer (EFT) sent to you
  - Typically takes 6-8 weeks for approval
  - After approval, typically a week or less
  - Risk is on applicant!
- **SPI (Service Provider Invoice)**
  - Vendor discounts the bill to only your share (e.g. 20%)
  - Vendor files the reimbursement request (no filing for you!)
  - Vendor receives payment
  - Less documentation for applicant to maintain
  - Risk is on vendor if language to protect applicant from vendor reimbursement fault is included in contract!

82

Thank you!

ANY QUESTIONS?

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83