Smart Schools Investment Plan - 2016-17 Version (Original) - First submission

SSIP Overview

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Institution ID

800000036180

1. Please enter the name of the person to contact regarding this submission.

Michael Bakatsias

1a. Please enter their phone number for follow up questions.

(845)236-4639

1b. Please enter their e-mail address for follow up contact.

mike.bakatsias@marlboroschools.org

2. Please indicate below whether this is the first submission, a new or supplemental submission or an amended submission of an approved Smart Schools Investment Plan.

First submission

3. All New York State public school districts are required to complete and submit a District Instructional Technology Plan survey to the New York State Education Department in compliance with Section 753 of the Education Law and per Part 100.12 of the Commissioner's Regulations. Districts that include investments in high-speed broadband or wireless connectivity and/or learning technology equipment or facilities as part of their Smart Schools Investment Plan must have a submitted and approved Instructional Technology Plan survey on file with the New York State Education Department.
By checking this box, you certify that the school district has an approved District Instructional Technology Plan survey on file with the New York State Education Department.

☑ District Educational Technology Plan Submitted to SED and Approved

4. Pursuant to the requirements of the Smart Schools Bond Act, the planning process must include consultation with parents, teachers, students, community members, other stakeholders and any nonpublic schools located in the district.
By checking the boxes below, you are certifying that you have engaged with those required stakeholders. Each box must be checked prior to submitting your Smart Schools Investment Plan.

☑ Parents
☑ Teachers
☑ Students
☑ Community members

4a. If your district contains non-public schools, have you provided a timely opportunity for consultation with these stakeholders?

☐ Yes
☐ No
☑ N/A

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5. Certify that the following required steps have taken place by checking the boxes below: Each box must be checked prior to submitting your Smart Schools Investment Plan.

- ☑ The district developed and the school board approved a preliminary Smart Schools Investment Plan.
- ☑ The preliminary plan was posted on the district website for at least 30 days. The district included an address to which any written comments on the plan should be sent.
- ☑ The school board conducted a hearing that enabled stakeholders to respond to the preliminary plan. This hearing may have occured as part of a normal Board meeting, but adequate notice of the event must have been provided through local media and the district website for at least two weeks prior to the meeting.
- ☑ The district prepared a final plan for school board approval and such plan has been approved by the school board.
- ☑ The final proposed plan that has been submitted has been posted on the district's website.

5a. Please upload the proposed Smart Schools Investment Plan (SSIP) that was posted on the district's website, along with any supporting materials. Note that this should be different than your recently submitted Educational Technology Survey. The Final SSIP, as approved by the School Board, should also be posted on the website and remain there during the course of the projects contained therein.

Proposal for SSBA_MCSD_3.pdf

5b. Enter the webpage address where the final Smart Schools Investment Plan is posted. The Plan should remain posted for the life of the included projects.

http://www.marlboroschools.org/cms/lib/NY24000063/Centricity/Domain/750/SSBA%20Pres%208_18_16.pdf

6. Please enter an estimate of the total number of students and staff that will benefit from this Smart Schools Investment Plan based on the cumulative projects submitted to date.

1,976

7. An LEA/School District may partner with one or more other LEA/School Districts to form a consortium to pool Smart Schools Bond Act funds for a project that meets all other Smart School Bond Act requirements. Each school district participating in the consortium will need to file an approved Smart Schools Investment Plan for the project and submit a signed Memorandum of Understanding that sets forth the details of the consortium including the roles of each respective district.

- ☐ The district plans to participate in a consortium to partner with other school district(s) to implement a Smart Schools project.

8. Please enter the name and 6-digit SED Code for each LEA/School District participating in the Consortium.

Partner LEA/District	SED BEDS Code
(No Response)	(No Response)

9. Please upload a signed Memorandum of Understanding with all of the participating Consortium partners.

(No Response)

10. Your district's Smart Schools Bond Act Allocation is:

$1,076,410

11. Enter the budget sub-allocations by category that you are submitting for approval at this time. If you are not budgeting SSBA funds for a category, please enter 0 (zero.) If the value entered is $0, you will not be required to complete that survey question.

	Sub-Allocations
School Connectivity	549,612
Connectivity Projects for Communities	

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	Sub-Allocations
	0
Classroom Technology	340,002
Pre-Kindergarten Classrooms	0
Replace Transportable Classrooms	0
High-Tech Security Features	153,075
Totals:	**1,042,689**

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1. In order for students and faculty to receive the maximum benefit from the technology made available under the Smart Schools Bond Act, their school buildings must possess sufficient connectivity infrastructure to ensure that devices can be used during the school day. Smart Schools Investment Plans must demonstrate that:

- **sufficient infrastructure that meets the Federal Communications Commission's 100 Mbps per 1,000 students standard currently exists in the buildings where new devices will be deployed, or**
- **is a planned use of a portion of Smart Schools Bond Act funds, or**
- **is under development through another funding source.**

Smart Schools Bond Act funds used for technology infrastructure or classroom technology investments must increase the number of school buildings that meet or exceed the minimum speed standard of 100 Mbps per 1,000 students and staff within 12 months. This standard may be met on either a contracted 24/7 firm service or a "burstable" capability. If the standard is met under the burstable criteria, it must be:

1. Specifically codified in a service contract with a provider, and

2. Guaranteed to be available to all students and devices as needed, particularly during periods of high demand, such as computer-based testing (CBT) periods.

Please describe how your district already meets or is planning to meet this standard within 12 months of plan submission.

The district is currently under contract with Orange-Ulster Boces for 500mb Internet service and for a minimum of 1 gigabyte connectivity to each school building for the 2018-19 school year. This level of service exceeds the infrastructure criteria listed above in this application. Our current and future budgets identified in our technology plan support this level of connectivity through 2021.

1a. If a district believes that it will be impossible to meet this standard within 12 months, it may apply for a waiver of this requirement, as described on the Smart Schools website. The waiver must be filed and approved by SED prior to submitting this survey.

☐ By checking this box, you are certifying that the school district has an approved waiver of this requirement on file with the New York State Education Department.

2. Connectivity Speed Calculator (Required)

	Number of Students	Multiply by 100 Kbps	Divide by 1000 to Convert to Required Speed in Mb	Current Speed in Mb	Expected Speed to be Attained Within 12 Months	Expected Date When Required Speed Will be Met
Calculated Speed	1,921	192,100	192.1	500	500	currently met

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3. Describe how you intend to use Smart Schools Bond Act funds for high-speed broadband and/or wireless connectivity projects in school buildings.

Receipt of these funds will help us update our technology infrastructure, improve wireless reliability and increase the devices used by students. All of these improvements will allow us to further integrate technology by embedding the classroom curriculum into a fully digital format. By making high-speed broadband and wireless connectivity more readily available in all five school buildings located within our school district, we will be increasing student and staff access to the Internet with the intention of enhancing student learning. Teachers will be able to run classrooms in non-traditional spaces. We will also be able to offer staff members professional development opportunities that move away from the traditional face-to-face delivery of content. This would be important for our staff, because it will make professional development more readily available and will allow us to offer those opportunities in a more time-efficient and flexible way. In providing our students with their own dedicated Chromebook, they will be able to continue their learning once they leave the school building, allowing them to practice what was learned during the day, and the time to build upon the content learned in the classroom. Our district's newly formed Instructional Technology Team will consist of two Library Media Specialists, three Teaching Assistants, and an Technology Integration Specialist, all of whom will function under the direction of the district's Director for Curriculum and Instruction.

Some examples of what the team will focus on initially will include:

- Guiding research by teaching information gathering skills and strategies
- Prevent plagiarism by teaching how to ethically use and synthesis of information
- Disseminating information via LMS (Learning management systems)
- Meet with Orange-Ulster BOCES to redesign the Media Centers in all our school buildings to promote 21st Century Learning Skills.

4. Describe the linkage between the district's District Instructional Technology Plan and the proposed projects. (There should be a link between your response to this question and your response to Question 1 in Part E. Curriculum and Instruction "What are the district's plans to use digital connectivity and technology to improve teaching and learning?)

The District's technology plan provides financial resources that provide for the maintenance of technology purchases over the next four years. Additionally it provides for Technical personnel positions needed to support the increased use of technology in classrooms both at the technical support level but also at the classroom level by increasing the number of instructional technology teachers and teaching assistants. This will help us leverage the use of technology in Marlboro Schools for increased engagement and performance by all students.

The technology plan also provides a framework for device replacement not just financially but through a process of continual evaluation, we look for ways to improve how technology can support instruction as new tools and programs are developed.

5. If the district wishes to have students and staff access the Internet from wireless devices within the school building, or in close proximity to it, it must first ensure that it has a robust Wi-Fi network in place that has sufficient bandwidth to meet user demand.

Please describe how you have quantified this demand and how you plan to meet this demand.

The district maintains an up to date Ruckus Wireless infrastructure. SmartZone™ 100 (SZ 100) the most scalable, resilient, and highest performing Wireless LAN controller within the Ruckus family of WLAN controllers for enterprises solutions.

Quantifying demand - The district used the bandwidth allocation tools supplied by the Tech Readiness Initiative from the Fall of 2014. At that time, both the Middle School and Elementary School supplied below the minimum standard of 100 mbps for each student. The district will move toward a 500 mbps WAN speed. The Smarter School Bond funds will allow for the replacement of costly network core switches that will assist in supplying the increased speed to all school buildings. In addition, the Smarter School funds will increase POE density that will allow of additional WiFi access points to be installed where needed to improve the "load" of device connectivity.

6. As indicated on Page 5 of the guidance, the Office of Facilities Planning will have to conduct a preliminary review of all capital projects, including connectivity projects.

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

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Project Number
62-10-01-06-7-999-BA1

7. Certain high-tech security and connectivity infrastructure projects may be eligible for an expedited review process as determined by the Office of Facilities Planning.

Was your project deemed eligible for streamlined review?

Yes

7a. Districts that choose the Streamlined Review Process will be required to certify that they have reviewed all installations with their licensed architect or engineer of record and provide that person's name and license number. The licensed professional must review the products and proposed method of installation prior to implementation and review the work during and after completion in order to affirm that the work was code-compliant, if requested.

☑ I certify that I have reviewed all installations with a licensed architect or engineer of record.

8. Include the name and license number of the architect or engineer of record.

Name	License Number
Bill Wisbauer, Tetra Tech	954148514

9. If you are submitting an allocation for School Connectivity complete this table.
Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Network/Access Costs	274,032
Outside Plant Costs	0
School Internal Connections and Components	266,090
Professional Services	9,490
Testing	0
Other Upfront Costs	0
Other Costs	0
Totals:	**549,612**

10. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be eligible for tax-exempt financing to be reimbursed through the SSBA. Sufficient detail must be provided so that we can verify this is the case. If you have any questions, please contact us directly through smartschools@nysed.gov.
NOTE: Wireless Access Points should be included in this category, not under Classroom Educational Technology, except those that will be loaned/purchased for nonpublic schools.
Add rows under each sub-category for additional items, as needed.

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Connections/Components	Wiring of Middle School with Cat 6 data wiring NYSOGS Contract Rate	240	500	120,000
Connections/Components	Single mode Fiber connections between data closets NYSOGS Contract Rate	5,500	10	55,000
Network/Access Costs	Catalyst 2960-x 48 GigE PoE 740W,2x10G Sfp+,LAN base	8	3,998	31,984
Connections/Components	Catalyst 2960-X FlexStack Plus Stacking Module	8	597	4,776
Connections/Components	Cisco FlexStack 3m stacking cable	2	100	200
Connections/Components	10GBase-CU SFP+Cable 5 Meter	4	75	300
Connections/Components	10 GBASE-LRM SFP module	10	550	5,500
Connections/Components	1000Base-T SFP transceiver modlule for Category 5 copper wire	1	225	225
Connections/Components	10GBASE-LR SFP Module(Bus garage)	1	950	950
Connections/Components	Fiber Optic Cable, LC/SC, Single Mode, Duplex-5 meter(9/125 type)	6	38	228
Network/Access Costs	catalyst 2960-x 48 GigE poE 740W,2x 10G SFP+, LAN Base K12	7	3,998	27,986
Connections/Components	Catalyst 2960-X flexStack Plus Stacking Module	7	598	4,186
Connections/Components	Cisco Flexstack 3M stacking cable	2	100	200
Connections/Components	10GBase-LRM SFP Module	2	497	994
Connections/Components	Fiber Optic Cable, LC/Sc, Single Mode, Duplex-5 meter(9/125 Type)	2	37	74
Network/Access Costs	Catalyst 2960-X 48 GigE PoE 740W, 2x 10G SFP+, LAN Base k12	8	3,998	31,984
Connections/Components	Catalyst 2960-X FlexStack Plus Stacking Module	8	598	4,784
Connections/Components	Cisco FlexStack 3 cm stacking cable	2	100	200
Connections/Components	10 GBASE-LRM SFP module	2	498	996
Connections/Components	Fiber Optic Cable, LC/SC, Single Mode, Duplex-5 meter(9/125 Type)	2	38	76
Network/Access Costs	Catalyst 2960-X 48 GigE PoE 740W, 2x10G SFP+, LAN Base K12	4	3,997	15,988
Connections/Components	Catalyst 2960-X Flexstack Plus	4	597	2,388

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
	Stacking Module			
Connections/Components	Cisco Flexstack 3m stacking cable	1	100	100
Connections/Components	10 GBASE-LRM SFP Module	1	498	498
Connections/Components	Fiber Optic Cable,LC/SC,Single Mode, Duplex-5Meter(9/125mType)	1	38	38
Network/Access Costs	Catalyst 2960-X 48 GigE PoE 740W,2x 10G SFP+,LAN Base K12	1	3,998	3,998
Connections/Components	10GBASE -LR SFP Module	1	950	950
Connections/Components	Fiber Optic Cable, LC/SC, Single Mode, Duplex-5 meter (9/125 Type)	1	38	38
Connections/Components	1000 Base-T SFP transceiver module for Category 5 copper wire	1	225	225
Network/Access Costs	Catalyst 2960-X 48 GigE PoE 740W, 2x 10g SFP+, LAN Base K12	2	3,998	7,996
Connections/Components	Catalyst 2960-X flexstack Plus Stacking Module	2	598	1,196
Connections/Components	Cisco Flexstack 1m stacking cable	1	50	50
Connections/Components	10 GBASE-CU SFP+ Cable 5 Meter	2	75	150
Connections/Components	Fiber Optic Cable, LC/SC, Single Mode, Duplex-5 meter (9/125 Type)	4	38	152
Network/Access Costs	Catalyst 2960-x 48 GigE PoE 740W,2x10G SFP+, LAN base K12	6	3,998	23,988
Connections/Components	Catalyst 2960-x flexstack plus stacking module	6	598	3,588
Connections/Components	Cisco Flexstack 3m stacking cable	1	100	100
Connections/Components	10GBase -LRM SFP Module	3	498	1,494
Connections/Components	10Gbase-CU SFP+ Cable 5 Meter	1	75	75
Connections/Components	10Gbase-CU SFP+ Cable 3 Meter	1	50	50
Network/Access Costs	Catalyst 2960-x 48 GigE PoE 740W,2x10G SFP+,LAN Base K!@	2	3,998	7,996
Connections/Components	Catalyst 2960-x Flexstack Plus Stacking Module	2	598	1,196
Connections/Components	Cisco FlexStack 1m stacking cable	1	50	50
Connections/Components	Fiber Optic Cable, LC/SC, Single Mode, Duplex -5 meter (9/125type)	1	38	38
Network/Access Costs	Catalyst 2960-x 48 gigE PoE 740W, 2x 10G SFP+, LAN Base K12	3	3,998	11,994

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Connections/Components	Catalyst 2960 -x flexstack plus Stacking module	3	598	1,794
Connections/Components	Cisco Flexstack 1m Stacking Cable	1	50	50
Connections/Components	10GBASE -LRM SFP Module	1	498	498
Connections/Components	Fiber Optic Cable, LC/SC, Single Mode,Duplex-5 meter (9/125 type)	1	38	38
Network/Access Costs	Catalyst 2960-x 48 GigE PoE 740W, 2x 10g SFP+, LAN base K12	2	3,998	7,996
Connections/Components	catalyst 2960 -x Flexstack Plus Stacking Module	2	598	1,196
Connections/Components	Cisco Flexstack 1m Stacking Cable	1	50	50
Connections/Components	10 Gbase -LRM SFP Module	1	498	498
Connections/Components	Fiber Optic Cable, LC/SC, Single Mode, Duplex-5 meter (9/125)	1	38	38
Network/Access Costs	Catalyst 2960-x 48 GigE PoE 740W, 2x 10g SFP+, LAN base K12	2	3,998	7,996
Connections/Components	catalyst 2960 -x Flexstack Plus Stacking Module	2	598	1,196
Connections/Components	Cisco FlexStack 1m stacking Cable	1	50	50
Connections/Components	10 Gbase -LRM SFP Module	1	498	498
Connections/Components	Fiber Optic Cable, LC/SC, Single Mode, Duplex-5 meter (9/125)	1	38	38
Network/Access Costs	Cisco Catalyst 3850 48 Port 912mGig+36Gig) UPoE IP Base	1	7,650	7,650
Network/Access Costs	1100W AC Config 1 secondary Power Supply	1	950	950
Network/Access Costs	Cisco Catalyst 3850 8x10GE Network module	1	3,000	3,000
Connections/Components	1000 Base -t SFP transceiver module for Category 5 copper wire	1	225	225
Connections/Components	Fiber Optic Cable, LC/SC, Single Mode, Duplex - 5 Meter (9/125 type)	1	38	38
Network/Access Costs	Catalyst 2960-x 48 GigE PoE 740W,2x10G SFP +LAN base	2	3,998	7,996
Connections/Components	Catalyst 2960-x Flexstack plus Stacking Module	2	598	1,196
Connections/Components	Cisco FlexStack 1m stacking Cable	1	50	50

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Connections/Components	10GBASE-CU SFP+ Cable 3 Meter	2	50	100
Network/Access Costs	Cisco Catalyst 3850 48 Port (12mGig+36Gig) UPoE IP BASE	1	7,650	7,650
Network/Access Costs	1100W AC Config 1 Secondary Power Supply	1	950	950
Network/Access Costs	Cisco Catalyst 3850 8x10GE Network Module	1	3,000	3,000
Connections/Components	1000Base-T SFP transceiver module for Category 5 copper wire	1	225	225
Network/Access Costs	Catalyst 2960-x 48 GigE PoE 740W,2x 10GSFP+, LAN base	1	3,998	3,998
Connections/Components	Catalyst 2960-x flexstack plus stacking Module	1	598	598
Connections/Components	10GBase -CU SFP+ Cable 3 Meter	1	50	50
Connections/Components	Fiber Optic Cable, LC/Sc Single Mode, Duplex-5 meter (9/125 Type)	1	38	38
Network/Access Costs	Catalyst 4500x 750W AC front to back cooling power supply	1	1,000	1,000
Connections/Components	1000 Base-T SFP transceiver module for Category 5 copper wire	1	225	225
Connections/Components	Fiber Optic Cable, LC/SC, single mode, duplex-5meter (9/125 type)	4	38	152
Network/Access Costs	APC Smart-UPS X 1000 VA Rack/tower LCD 120v	1	614	614
Network/Access Costs	Catalyst 4500-x 32 port 10g IP base, Front to back, No P/S	1	14,000	14,000
Network/Access Costs	catalyst 4500x 750W AC front to back colling 2nd pwr supply	1	1,000	1,000
Network/Access Costs	APC Smart-UPS X-series 48V External Bettery Pack Rack/Tower	1	516	516
Network/Access Costs	APC Smart-UPS X 2000 VA Rack/Tower LCD 100-127v with Network Card	12	1,505	18,060
Network/Access Costs	APC Smart-UPS x 120V External Battery Parck Rack/Tower	12	756	9,072
Network/Access Costs	APC Smart-UPS X 3000VA Rack/Tower LCD 100-127V with Network Card	5	1,662	8,310
Network/Access Costs	APC Smart-UPS X 120V external	10	636	6,360

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
	Battery Pack Rack/Tower			
Connections/Components	10GBase-lrm SfP module	4	498	1,992
Connections/Components	Fiber Optic Cable, LC/SC, single mode, Duplex -5 meter(9/125 type)	1	38	38
Connections/Components	Fiber Optic Cable, LC/SC, single mode, Duplex -5 meter(9/125 type)	1	38	38
Connections/Components	Fiber Optic Cable, LC/SC, single mode, Duplex -5 meter(9/125 type)	1	38	38
Connections/Components	Switching installation and connection to network - Phase 1	1	30,280	30,280
Professional Services	Professional Services for Switching Network Programming of new switches for compatability with system o) - Completion	1	9,490	9,490
Connections/Components	installation of APC-UPS devices into network closets) - NYS Contract PT64525	1	10,331	10,331
Connections/Components	Environmental (Programming and network configuration of APC-UPS devices for redundancy and network management) - Phase 1- NYS Contract PT64525 -	1	3,467	3,467

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1. Describe how you intend to use Smart Schools Bond Act funds for high-speed broadband and/or wireless connectivity projects in the community.

(No Response)

2. Please describe how the proposed project(s) will promote student achievement and increase student and/or staff access to the Internet in a manner that enhances student learning and/or instruction outside of the school day and/or school building.

(No Response)

3. Community connectivity projects must comply with all the necessary local building codes and regulations (building and related permits are not required prior to plan submission).

☐ I certify that we will comply with all the necessary local building codes and regulations.

4. Please describe the physical location of the proposed investment.

(No Response)

5. Please provide the initial list of partners participating in the Community Connectivity Broadband Project, along with their Federal Tax Identification (Employer Identification) number.

Project Partners	Federal ID #
(No Response)	(No Response)

6. If you are submitting an allocation for Community Connectivity, complete this table.
Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Network/Access Costs	0
Outside Plant Costs	0
Tower Costs	0
Customer Premises Equipment	0
Professional Services	0
Testing	0
Other Upfront Costs	0
Other Costs	0
Totals:	**0**

7. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.
Add rows under each sub-category for additional items, as needed.

Community Connectivity (Broadband and Wireless)

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

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1. In order for students and faculty to receive the maximum benefit from the technology made available under the Smart Schools Bond Act, their school buildings must possess sufficient connectivity infrastructure to ensure that devices can be used during the school day. Smart Schools Investment Plans must demonstrate that sufficient infrastructure that meets the Federal Communications Commission's 100 Mbps per 1,000 students standard currently exists in the buildings where new devices will be deployed, or is a planned use of a portion of Smart Schools Bond Act funds, or is under development through another funding source.
Smart Schools Bond Act funds used for technology infrastructure or classroom technology investments must increase the number of school buildings that meet or exceed the minimum speed standard of 100 Mbps per 1,000 students and staff within 12 months. This standard may be met on either a contracted 24/7 firm service or a "burstable" capability. If the standard is met under the burstable criteria, it must be:
1. Specifically codified in a service contract with a provider, and
2. Guaranteed to be available to all students and devices as needed, particularly during periods of high demand, such as computer-based testing (CBT) periods.
Please describe how your district already meets or is planning to meet this standard within 12 months of plan submission.

The district is currently under contract with Orange-Ulster Boces for 500mb Internet service and for a minimum of 1 gigabyte connectivity to each school building for the 2018-19 school year. This level of service exceeds the infrastructure criteria listed above in this application. Our current and future budgets identified in our technology plan support this level of connectivity through 2021.

1a. If a district believes that it will be impossible to meet this standard within 12 months, it may apply for a waiver of this requirement, as described on the Smart Schools website. The waiver must be filed and approved by SED prior to submitting this survey.

☐ By checking this box, you are certifying that the school district has an approved waiver of this requirement on file with the New York State Education Department.

2. Connectivity Speed Calculator (Required)

	Number of Students	Multiply by 100 Kbps	Divide by 1000 to Convert to Required Speed in Mb	Current Speed in Mb	Expected Speed to be Attained Within 12 Months	Expected Date When Required Speed Will be Met
Calculated Speed	1,921	192,100	192.1	500	500	currently met

3. If the district wishes to have students and staff access the Internet from wireless devices within the school building, or in close proximity to it, it must first ensure that it has a robust Wi-Fi network in place that has sufficient bandwidth to meet user demand.
Please describe how you have quantified this demand and how you plan to meet this demand.

The district maintains an up to date Ruckus Wireless infrastructure, SmartZone™ 100 (SZ100) to manage wireless functions in Marlboro Schools. The system is scalable, resilient and a high performing Wireless LAN controller for enterprise solutions.
Quantifying demand - The district used the bandwidth allocation tools and methodology supplied by the Tech Readiness initiative from the Fall of 2014. At that time, both Middle and Elementary schools supplied below the minimum standard of 100 mb to each student. The district then moved forward with increasing our investment in both WAN connectivity and Internet Connectivity from Orange-Ulster BOCES to resolve these deficiencies, moving up to a 500 mb WAN connection minimum for each building and increasing Internet Connectivity to 200 Mb then again to 500 Mb.
The Smarter School Bond funds will allow for the replacement of costly network switches that will assist in supplying the increased speed to all buildings. In addition, the Smarter School funds will increase PO density that will allow additional WiFi access points to be installed where they are needed to improve device connectivity.

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4. All New York State public school districts are required to complete and submit an Instructional Technology Plan survey to the New York State Education Department in compliance with Section 753 of the Education Law and per Part 100.12 of the Commissioner's Regulations.
Districts that include educational technology purchases as part of their Smart Schools Investment Plan must have a submitted and approved Instructional Technology Plan survey on file with the New York State Education Department.

☑ By checking this box, you are certifying that the school district has an approved Instructional Technology Plan survey on file with the New York State Education Department.

5. Describe the devices you intend to purchase and their compatibility with existing or planned platforms or systems. Specifically address the adequacy of each facility's electrical, HVAC and other infrastructure necessary to install and support the operation of the planned technology.

It is the intent of Marlboro Central Schools to upgrade the personal devices used by the students and staff in our classrooms. This includes desktops, chromebooks, iPads and interactive white boards. Each of our buildings have had a capital project in the last 10 years that addresses the electrical, HVAC and related infrastructure to assist the upgrades and installation outlined in the SSIP.

6. Describe how the proposed technology purchases will:
- **> enhance differentiated instruction;**
- **> expand student learning inside and outside the classroom;**
- **> benefit students with disabilities and English language learners; and**
- **> contribute to the reduction of other learning gaps that have been identified within the district.**

The expectation is that districts will place a priority on addressing the needs of students who struggle to succeed in a rigorous curriculum. Responses in this section should specifically address this concern and align with the district's Instructional Technology Plan (in particular Question 2 of E. Curriculum and Instruction: "Does the district's instructional technology plan address the needs of students with disabilities to ensure equitable access to instruction, materials and assessments?" and Question 3 of the same section: "Does the district's instructional technology plan address the provision of assistive technology specifically for students with disabilities to ensure access to and participation in the general curriculum?"

In purchasing Chromebooks, Ipads, and offer electronic devices for each student in our district, we will be giving families that do not currently own any devices the opportunity to connect to the global society. As these devices will go home with each student on a regular basis, it is our expectation that family members will also benefit from the connectivity that will be provided with the devices. Students will also be able to easily share what they are learning in school with their families. For example, high school students using Google Docs to collaborate with peers on an essay can share their on-going progress with their families. Elementary-level students can show their proficiency with learning the letters of the alphabet by having easy access to a variety of web-based tools. By providing our students with devices to take home, and with dedicated email addresses, we are educating our students on the proper use of a variety of social media applications that will be extremely prevalent in their daily lives as adults. Families of students can also enhance their communication with teachers by having access to these devices.
Students with disabilities will benefit from this purchase. These students traditionally learn at a different pace than regular education students. Because these devices will be issued devices, the students can learn at their own pace at when they have time rather than when the device is available. These devices are also linked to their instructors via Google Classroom. Our students with disabilities can benefit from immediate feedback without any concern about classroom embarrassment.
Finally, our students who are English Language Learners will have a tremendous opportunity with the use of Chromebooks. These devices use Google. Google has a direct translation program built in. Students who are not fluent in English can switch back to their native language and directly from their native language to English. No delays waiting for a translator or waiting for their aid to order a translation. Immediate information at the students best learning opportunity
Our proposed Technology Plan will also include building a relationship with area BOCES for the purpose of utilizing technological services they offer, and being an active member on the Model Schools Committee, which meets monthly. The monthly meeting will be attended by the Director of Curriculum & Instruction and the Technology Integration Specialist for the purpose of gaining knowledge from regional colleagues regarding educational technology to be brought back to the district. This knowledge will be used to develop professional development opportunities to support both staff members and students. We will also make visitations to local schools to learn best practices and view successful programs in the area of educational technology.

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7. Where appropriate, describe how the proposed technology purchases will enhance ongoing communication with parents and other stakeholders and help the district facilitate technology-based regional partnerships, including distance learning and other efforts.

About 20 years ago, many districts invested large sums of money to create Distance Learning Classrooms opening an opportunity for a small group of students at a specific time to reach outside the district for additional opportunities.

The purchase of these devices will create an opportunity for ALL students to access these resources at their time and their interest. Every Chromebook and iPad has a built in video camera and microphone. Through the use of Google Hangouts the students can reach out to their peers as a resource, the professional staff in Marlboro as a resource, and even to resources such as colleges and museums to support additional opportunities for distance learning and collaboration.

As a traditional tool, these devices won't change the opportunities for parents. Marlboro has a robust Parent Portal as a component to their Student Management system. Parents have real time access to student attendance, schedules, assignment completion and direct email contact to their identifies student faculty members.

Because the devices are student assigned and allowed to be released outside of school hours, student learning expands. No longer limited to a 8 to 2:30 schedule, students can access resources any time of the day. In the even that a student does take a device home at the end of the day, it becomes an opportunity for those parents who don't have a device to access the Parent Portal and student information.

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8. Describe the district's plan to provide professional development to ensure that administrators, teachers and staff can employ the technology purchased to enhance instruction successfully.

Note: This response should be aligned and expanded upon in accordance with your district's response to Question 1 of F. Professional Development of your Instructional Technology Plan: "Please provide a summary of professional development offered to teachers and staff, for the time period covered by this plan, to support technology to enhance teaching and learning. Please include topics, audience and method of delivery within your summary."

In considering how we will educate our staff on the electronic devices we will purchase, we will review the SAMR model, created by Dr. Ruben Puentedura (PDF). Puentedura defines the four levels as follows:
Substitution: Technology acts as a direct tool substitute, with no functional change.
Augmentation: Technology acts as a direct tool substitute, with functional improvement.
Modification: Technology allows for significant task redesign.
Redefinition: Technology allows for the creation of new tasks, previously inconceivable.
This means we will not integrate technology simply by typing that which we could have written. Instead, through this grant, we will embed the curriculum in technology, therefore providing students, educators, and administrators with additional ways to express their learning, to search the web and find information from experts. It is our goal, that students, educators, and administrators will also learn how to analyze and synthesize a variety of information, and to select a method to present that information to demonstrate what they have learned.
We will also look to build the capacity of the members of the Instructional Technology Team by providing targeted professional development delivered by the Technology Integration Specialist, and Model Schools and Mid-Hudson Teacher Center trainers. The professional development offerings will include the following for staff members: Teacher Websites for Communication, Google Applications, Blended Learning, Kahoot, Plickers, and QR Codes, among others. We will also focus on differentiating classroom instruction for Students with Disabilities and English Language Learnersusing Castle Learning, eDoctrina, and STAR Assessments.
They will also include the following for students: Google Applications, YouTube, Padlet, and Duolingo. Part of the goal for the Instructional Technology Team is to have all of its members become Google Certified Educators within the upcoming school year. Our Technology Integration Specialist will also become a Google Certified Trainer, and will assist the members of the team in becoming Google Certified Educators.
Within the next two years, our goal is to increase the number of Google Certified Educators in our district by including more teachers and administrators in leadership positions. In this same vain, we will work to educate our students on the Google suite of applications through the Google Ninja Program, and with the creation of a student-run Geek Squad to provide technical support at the secondary level. Finally we will also work to make each school within our district a Google Reference School, which is a school or district that opts in to connect with other schools and educators in using Google's products in their classroom.
Dr. Kiersten Greene, Assistant Professor of Literacy and Apple Distinguished Educator at the State University of New Paltz has agreed to be a member of the MCSD SMART Bonds Committee. During an interview with Dr. Greene, she shared that new teachers are taught that the "tech will always break and given this there is one thing that you can depend on not breaking and that is your attitude. " Dr. Greene shared that keeping a positive attitude is important when working with technology as a vehicle for learning. Her advice to the district is centered around two central big ideas: 1) Engagement of teachers in the use of technology and 2) Aligning instruction with technology. Dr. Greene places a strong emphasis on "finding opportunities and time for teachers to "play" with technology before implementing in their instruction will decrease their hesitancy and increase their comfortableness and build confidence with the new tools". Our district plans on offering technology-based professional development on a monthly basis ranging from educational applications that support what is being taught in the classroom like Kahoot, Plickers, and Google Applications.
Dr. Greene stresses the importance of quality over quantity versus peppering technology in every lesson for the sake of using technology. Ms. Greene suggested the SAMR model, which is designed to help educators infuse technology into teaching and learning. This model was popularized by Dr. Ruben Puentedura, and supports teachers designing, developing, and infusing digital learning experiences in their lessons that utilize quality technology. For example; when using terms associated with Bloom's Digital Taxonomy; design means blog, inventing equates to coding, and constructing can be editing.
Dr. Green will be facilitated a workshop at MCSD titled: *Framework for How Different Curriculum works with technology.*
Dr. Greene is exploring with the Director of Curriculum and Instruction a partnership in which faculty can participate in research on this topic.

9. Districts must contact the SUNY/CUNY teacher preparation program that supplies the largest number of the district's new teachers to request advice on innovative uses and best practices at the intersection of pedagogy and educational technology.

☑ By checking this box, you certify that you have contacted the SUNY/CUNY teacher preparation program that supplies the largest number of your new teachers to request advice on these issues.

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9a. Please enter the name of the SUNY or CUNY Institution that you contacted.

State University of New York at New Paltz

9b. Enter the primary Institution phone number.

845.257.2887

9c. Enter the name of the contact person with whom you consulted and/or will be collaborating with on innovative uses of technology and best practices.

Dr. Kiersten Greene, Assistant Professor of Literacy

10. A district whose Smart Schools Investment Plan proposes the purchase of technology devices and other hardware must account for nonpublic schools in the district.

Are there nonpublic schools within your school district?

☐ Yes
☑ No

11. Nonpublic Classroom Technology Loan Calculator

The Smart Schools Bond Act provides that any Classroom Learning Technology purchases made using Smart Schools funds shall be lent, upon request, to nonpublic schools in the district. However, no school district shall be required to loan technology in amounts greater than the total obtained and spent on technology pursuant to the Smart Schools Bond Act and the value of such loan may not exceed the total of $250 multiplied by the nonpublic school enrollment in the base year at the time of enactment.

See:

http://www.p12.nysed.gov/mgtserv/smart_schools/docs/Smart_Schools_Bond_Act_Guidance_04.27.15_Final.pdf.

	1. Classroom Technology Sub-allocation	2. Public Enrollment (2014-15)	3. Nonpublic Enrollment (2014-15)	4. Sum of Public and Nonpublic Enrollment	5. Total Per Pupil Sub-allocation	6. Total Nonpublic Loan Amount
Calculated Nonpublic Loan Amount	(No Response)	(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

12. To ensure the sustainability of technology purchases made with Smart Schools funds, districts must demonstrate a long-term plan to maintain and replace technology purchases supported by Smart Schools Bond Act funds. This sustainability plan shall demonstrate a district's capacity to support recurring costs of use that are ineligible for Smart Schools Bond Act funding such as device maintenance, technical support, Internet and wireless fees, maintenance of hotspots, staff professional development, building maintenance and the replacement of incidental items. Further, such a sustainability plan shall include a long-term plan for the replacement of purchased devices and equipment at the end of their useful life with other funding sources.

☑ By checking this box, you certify that the district has a sustainability plan as described above.

13. Districts must ensure that devices purchased with Smart Schools Bond funds will be distributed, prepared for use, maintained and supported appropriately. Districts must maintain detailed device inventories in accordance with generally accepted accounting principles.

☑ By checking this box, you certify that the district has a distribution and inventory management plan and system in place.

14. If you are submitting an allocation for Classroom Learning Technology complete this table.
Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

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	Sub-Allocation
Interactive Whiteboards	68,256
Computer Servers	0
Desktop Computers	85,100
Laptop Computers	136,000
Tablet Computers	10,620
Other Costs	40,026
Totals:	**340,002**

15. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.
Please specify in the "Item to be Purchased" field which specific expenditures and items are planned to meet the district's nonpublic loan requirement, if applicable.
NOTE: Wireless Access Points that will be loaned/purchased for nonpublic schools should ONLY be included in this category, not under School Connectivity, where public school districts would list them.
Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be Purchased	Quantity	Cost per Item	Total Cost
Desktop Computers	Dell Optiplex 3050 SFF	100	619	61,900
Desktop Computers	Dell Optiplex 5050 SFF	10	1,036	10,360
Other Costs	Dell Monitor 22 inch	110	135	14,850
Other Costs	Dell Speaker Sound Bar	110	26	2,860
Laptop Computers	Samsung Chrome 3 XE500C13-K02US 11.6 4GB/16 GBSSD	800	170	136,000
Other Costs	Chrome management console license	800	24	19,200
Tablet Computers	iPad WiFi 32Gb - BMGY2LL/A	36	295	10,620
Desktop Computers	ACER Chromebase (All in one chrome computer)	30	428	12,840
Other Costs	Chrome management console license for chrome computer	30	24	720
Other Costs	Cloud 32 Device Cart - holds 32 IPAD or Chromebook devices	2	1,198	2,396
Interactive Whiteboards	Infocus J Touch - 65' Interactive Board	24	2,696	64,704
Interactive Whiteboards	Infocus J Touch Mounting Bracket	24	148	3,552

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1. Describe how you intend to use Smart Schools Bond Act funds to install high-tech security features in school buildings and on school campuses.

An investment into an updated surveillance system will make managing the cameras very easy for the district. While the Technology Director is in charge of monitoring both the surveillance and access control systems, the existing camera fleet is in need of upgrading. Presently, there are two existing systems that run surveillance cameras in our district, this project will allow them to all be managed by one system while providing additional functionality.
Additional functions and features are listed as:
1. Staff can access the cameras from any workstation (using a login/ password) as well as off-site via a secure viewing application. They can also access the cameras from the Web interface that comes with the servers and the phone app option. This allows the district to keep an eye on the school grounds not only during the day, but at night and during holidays, as well.
2. In addition to the Security Resource Officers at the schools, the local Police will have access to all school surveillane systems because it is tied into the system, giving them access to the surveillance footage. In the event of an emergency situation, they can sign in and view the live camera footage to respond as needed.
These enhanced features will make our schools more secure in the future.

2. All plans and specifications for the erection, repair, enlargement or remodeling of school buildings in any public school district in the State must be reviewed and approved by the Commissioner. Districts that plan capital projects using their Smart Schools Bond Act funds will undergo a Preliminary Review Process by the Office of Facilities Planning.
Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
62-10-01-06-7-999-BA1

3. Was your project deemed eligible for streamlined Review?

☑ Yes
☐ No

3a. Districts with streamlined projects must certify that they have reviewed all installations with their licensed architect or engineer of record, and provide that person's name and license number. The licensed professional must review the products and proposed method of installation prior to implementation and review the work during and after completion in order to affirm that the work was code-compliant, if requested.

☑ By checking this box, you certify that the district has reviewed all installations with a licensed architect or engineer of record.

4. Include the name and license number of the architect or engineer of record.

Name	License Number
Bill Wisbauer, Tetra Tech	954148514

5. If you have made an allocation for High-Tech Security Features, complete this table.
Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Capital-Intensive Security Project (Standard Review)	0
Electronic Security System	153,075
Entry Control System	0

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	Sub-Allocation
Approved Door Hardening Project	0
Other Costs	0
Totals:	**153,075**

6. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.
Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Electronic Security System	A+ Installation Services	232.00	150	34,800
Electronic Security System	EDGE 16TB 2U RAID1 - 4TB Drives Manuf. Part #: IPV-IPV-EDGE-16-RAID1	2.00	12,850	25,700
Electronic Security System	5ft Cat5e Non-Booted Unshielded (UTP) Ethernet Network Patch Cable	2.00	5	10
Electronic Security System	Professional Service Labor for Programming and Installation	16.00	150	2,400
Electronic Security System	Axis P3225-LV MKII- Day/night fixed dome with support for WDR-Forensic Capture, lighfinder and Optimized IR with built in IR illumination. Discreet, dust and IK08 vandal-resistant indoor casing. Varifocal 3-10.5mm P-Iris lens, remote focus and zoom. Multiple, individually configurable H.264 and Motion JPEG streams. HDTV 1080p at 30 fps with WDR and up to 60 fbs with WDR disabled. Axis Zipstream technology for reduced bandwidth and storage needs.Video motion detection and active tampering alarm. Memory card slot for optional local vidoe storage. Power over Ethernet. Midspan not included. Includes mounting bracket for wall/celing	7.00	544	3,810
Electronic Security System	AXIS P3367-VE - 5MP, day/night, fixed dome with vandal-resistant, IP66-rated outdoor casing. Varifocal 3-9 mm P-iris lens, remote focus and zoom. Multiple, individually configurable H.264 and Motion JPEG streams; max 5MP resolution at 12 fps or HDTV 1080p at	8.00	1,127	9,016

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
	30 fps. WDR. Video motion detection and active tampering alarm. Two-way audio and audio detection. I/O for alarm/event handling, SD/SDHC memory card slot for optional local video storage. Operation in -40°C to +55°C powered by standard Power over Ethernet. Midspan not included. Includes smoked and clear transparent covers, weather shield against sun, rain or snow, and 5m			
Electronic Security System	AXIS T8133 30W MIDSPAN - Single port midspan for Power over Ethernet Plus (PoE+) IEEE 802.3at Type 2 Class 4. Replaces AXIS	3.00	74	223
Electronic Security System	AXIS P3225-LV MKII - Day/night fixed dome with support for WDR - Forensic Capture, Lightfinder and OptimizedIR with built-in IR illumination. Discreet, dust and IK08 vandal-resistant indoor casing. Varifocal 3-10.5 mm P-Iris lens, remote focus and zoom. Multiple, individually configurable H.264 and Motion JPEG streams. HDTV 1080p at 30 fps with WDR, and up to 60 fps with WDR disabled. Axis' Zipstream technology for reduced bandwidth and storage needs. Video motion detection and active tampering alarm. Memory card slot for optional local video storage. Power over Ethernet. Midspan not included. Includes mounting bracket for wall/ceiling or junction boxes. Manuf. Part	6.00	544	3,266
Electronic Security System	AXIS P3367-VE - 5MP, day/night, fixed dome with vandal-resistant, IP66-rated outdoor casing. Varifocal 3-9 mm P-iris lens, remote focus and zoom. Multiple, individually configurable H.264 and Motion JPEG streams; max 5MP resolution at 12 fps or HDTV 1080p at 30 fps. WDR. Video motion detection and active tampering alarm. Two-way audio and audio detection. I/O for alarm/event handling, SD/SDHC memory card slot for optional local video storage. Operation in -40°C to	2.00	1,127	2,254

High-Tech Security Features

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
	+55°C powered by standard Power over Ethernet. Midspan not included. Includes smoked and clear transparent covers, weather shield against sun, rain or snow, and 5m			
Electronic Security System	AXIS Q3708-PVE - 180° multi-sensor, day/night fixed dome in an IK10 vandal-resistant outdoor casing. Fixed focal, multi-megapixel lenses, focused from factory. 3 x QHD resolution, up to 15MP total in 4:3 format. WDR Forensic Capture, Zipstream and one single IP address. Operation in wide temperature range powered by standard Power over Ethernet Plus. Midspan not included. Designed for pendant or wall mount arm with same bayonet joint interface as Axis' PTZ domes. Includes weather shield against sun, rain or snow, easily repaintable to	2.00	1,879	3,758
Electronic Security System	AXIS T91E61 WALL MOUNT - Wall mount with internal cable canal for dome cameras with 1.5	2.00	37	73
Electronic Security System	AXIS T94A01D PENDANT KIT - Pendant kit for the AXIS Q60-series and AXIS P55-series PTZ Network Cameras, enables mount on standard '1,5	2.00	46	92
Electronic Security System	AXIS T8133 30W MIDSPAN - Single port midspan for Power over Ethernet Plus (PoE+) IEEE 802.3at Type 2 Class 4. Replaces AXIS T8123. Manuf. Part #: AXS-5900-294	2.00	74	149
Electronic Security System	AXIS M7016 VIDEO ENCODER - Sixteen-channel video encoder. Dual streaming H.264 and Motion JPEG on all channels. Max D1 resolution at 30/25 (NTSC/PAL) fps on all streams. Video motion detection. Active tampering alarm. Unit includes 4 x micro SD card slots for edge storage. PTZ support. Unit has 4 x ARTPEC chips and 4 x IP addresses. Includes power supply. Manuf. Part #: AXS-0541-004 For 20 cameras	11.00	939	10,329

High-Tech Security Features

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Electronic Security System	Mosaic Enterprise VMS Camera License(Please specify New or Existing Site License Code) Manuf. Part #: IPV-ME-VMS-SW-1	14.00	132	1,849
Electronic Security System	Software Upgrade Protection 1 Year for Mosaic Enterprise Camera License Manuf. Part #: IPV-ME-SUP-SW-CAM-1YR	28.00	24	665
Electronic Security System	CAT6 UTP 4-Pair Solid CMP Yellow 1000FT Cable Manuf. Part #: ATS-CMP4/6-YELLOW	2.00	295	590
Electronic Security System	Professional Service Install, configure & integrate security cameras, cable and wiring for video systems. Manuf. Part #: Install-Video Technician	64.00	150	9,600
Electronic Security System	AXIS Q3708-PVE - 180° multi-sensor, day/night fixed dome in an IK10 vandal-resistant outdoor casing. Fixed focal, multi-megapixel lenses, focused from factory. 3 x QHD resolution, up to 15MP total in 4:3 format. WDR Forensic Capture, Zipstream and one single IP address. Operation in wide temperature range powered by standard Power over Ethernet Plus. Midspan not included. Designed for pendant or wall mount arm with same bayonet joint interface as Axis' PTZ domes. Includes weather shield against sun, rain or snow, easily repaintable to blend in with the environment. Manuf. Part #: AXS-0801-001	3.00	1,879	5,637
Electronic Security System	AXIS T91E61 WALL MOUNT - Wall mount with internal cable canal for dome cameras with 1.5	3.00	37	110
Electronic Security System	AXIS T94A01D PENDANT KIT - Pendant kit for the AXIS Q60-series and AXIS P55-series PTZ Network Cameras, enables mount on standard '1,5	3.00	46	138
Electronic Security System	Mosaic Enterprise VMS Camera License(Please specify New or Existing Site License Code) Manuf. Part #: IPV-ME-VMS-SW-1	18.00	132	2,377

High-Tech Security Features

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Electronic Security System	36 Software Upgrade Protection 1 Year for Mosaic Enterprise Camera License Manuf. Part #: IPV-ME-SUP-SW-CAM-1YR	36.00	24	855
Electronic Security System	CAT6 UTP 4-Pair Solid CMP Yellow 1000FT Cable Manuf. Part #: ATS-CMP4/6-YELLOW	4.00	295	1,180
Electronic Security System	Professional Service Install, configure & integrate security cameras, cable and wiring for video systems. Manuf. Part #: Install-Video Technician	108.00	150	16,200
Electronic Security System	AXIS P3225-LV MKII - Day/night fixed dome with support for WDR - Forensic Capture, Lightfinder and OptimizedIR with built-in IR illumination. Discreet, dust and IK08 vandal-resistant indoor casing. Varifocal 3-10.5 mm P-Iris lens, remote focus and zoom. Multiple, individually configurable H.264 and Motion JPEG streams. HDTV 1080p at 30 fps with WDR, and up to 60 fps with WDR disabled. Axis' Zipstream technology for reduced bandwidth and storage needs. Video motion detection and active tampering alarm. Memory card slot for optional local video storage. Power over Ethernet. Midspan not included. Includes mounting bracket for wall/ceiling or junction boxes. Manuf. Part #: AXS-0954-001	8.00	544	4,354
Electronic Security System	AXIS P3707-PE - Flexible multisensor fixed camera with four 1080p sensors. The lenses can be adjusted to provide a 108° to 54° horizontal field of view for either a wide, panoramic view, or detailed, zoomed-in views. The lenses can be rotated to support vertically oriented scenes in Axis' Corridor Format. Supports individually configurable video streams from each camera head, as well as quad view streaming, enabling 4x 1080p resolution videos at 12.5/15 fps or 4x 720p resolution videos at full frame rate. Axis' Zipstream technology is supported to lower bandwidth and	1.00	1,127	1,127

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Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
	storage requirements. PoE Class 2. Manuf. Part #: AXS-0815-001			
Electronic Security System	AXIS P3367-VE - 5MP, day/night, fixed dome with vandal-resistant, IP66-rated outdoor casing. Varifocal 3-9 mm P-iris lens, remote focus and zoom. Multiple, individually configurable H.264 and Motion JPEG streams; max 5MP resolution at 12 fps or HDTV 1080p at 30 fps. WDR. Video motion detection and active tampering alarm. Two-way audio and audio detection. I/O for alarm/event handling, SD/SDHC memory card slot for optional local video storage. Operation in -40°C to +55°C powered by standard Power over Ethernet. Midspan not included. Includes smoked and clear transparent covers, weather shield against sun, rain or snow, and 5m Ethernet cable with mounted gasket. Manuf. Part #: AXS-0407-001	1.00	1,127	1,127
Electronic Security System	Mosaic Enterprise VMS Camera Licence (New Site License Code) Manuf. Part #: IPV-ME-VMS-SW-1	10.00	132	1,321
Electronic Security System	Software Protection 1 Year for Mosaic Enterprise Camera License Manuf. Part #: IPV-ME-SUP-SW-CAM-1YR	20.00	24	475
Electronic Security System	CAT6 UTP 4-Pair Solid CMP Yellow 1000FT Cable Manuf. Part #: ATS-CMP4/6-YELLOW	2.00	295	590
Electronic Security System	Professional service Install, configure & integrate security cameras, cable and wiring for video systems. Manuf. Part #: Install-Video Technician	60.00	150	9,000