# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Multi-School, Direct Connection via a Non-School Facility, Status Report

## School Information

**Kirtland BO and Data Center**
550 County Road 6100, Kirtland, NM, 87417
San Juan
Central Cons School Dist 22

| | | | |
|---|---|---|---|
| School ID: | 067990 | School Category: | Dist. Facility |
| Latitude: | 36.7365 | School Type: | Other |
| Longitude: | -108.3767 | Grades Served: | 0 - 0 |
| District ID: | 67 | Gross Sq. Footage: | 1,999 |

| | | | |
|---|---|---|---|
| Frequency of Power Related Issues: | rarely - once or twice a year | Name of Electric Power Provider: | City of Farmington |
| Capable of remotely monitoring IT infrastructure and speed: | No | Cost to add monitor capability: | $11,599.38 |
| Facility general background internet bandwidth used in Kbps: | 131.97 | | |
| Total all schools & facility general background internet used in Kbps: | 582.68 | | |

| | | | |
|---|---|---|---|
| Number of FTE supporting IT: | 0.5 | Estimated number of network devices being supported: | 5 |
| % of IT-FTE network tasks: | 5 % | | |

| | |
|---|---|
| Cost analysis of Network-IT FTE support for this facility, contracted or staff, is estimated annually to be: | $1,000.00 |
| Recommended IT-FTE cost based on Industry Standard number of network devices and annual support cost/device is: | $5,310.00 |

## Status of Broadband Connection and Distribution Equipment

### Broadband Connection Information

| | |
|---|---|
| The Broadband Internet Service Provider is: | Century Link |
| The Internet Service is provided via (media type/circuit): | Ethernet (fiber/copper) |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)

Multi-School, Direct Connection via a Non-School Facility, Status Report

| | |
|---|---|
| The annual cost of this ISP service package is: | $38,400.00 |
| The annual charge of the "internet" service is: | $38,400.00 |
| The annual charge of the "physical" connection is: | $0.00 |
| Facility rating of the Internet connection: (1 – low, 10 – highest) | 8 |
| Facility general quality/deficiency comments: | |
| Runs well with rarely any issues | |
| The maximum rated DOWNLOAD speed of the Broadband connection is (in Mbps): | 200 |
| The rated DOWNLOAD speed, per headcount, is estimated to be: | 79.86 Kbps/headcount |
| The maximum rated UPLOAD speed of the Broadband connection is (in Mbps): | 200 |
| The rated UPLOAD speed, per headcount, is estimated to be: | 79.86 Kbps/headcount |
| The average measured DOWNLOAD speed from ISP is (in Mbps): | 33.38 |
| The measured DOWNLOAD speed, per headcount, is estimated to be: | 13.37 Kbps/headcount |
| The average measured UPLOAD speed from the ISP is (in Mbps): | 127.31 |
| The measured UPLOAD speed, per headcount, is estimated to be: | 50.99 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Download Speed | Fail | Fail | Fail | Fail |
| Rated Upload Speed | Fail | Fail | Fail | Fail |
| Measured Download Speed | Fail | Fail | Fail | Fail |
| Measured Upload Speed | Fail | Fail | Fail | Fail |

| | Transport Media $ | | ISP Service $ |
|---|---|---|---|
| | Capital Cost | Operational Costs | |
| The cost to improve the Broadband connection annually to 100 Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 300Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 600Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 1,000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Multi-School, Direct Connection via a Non-School Facility, Status Report

| Broadband Deficiencies Correction Program formulas |
|---|
| Kbps/headcount = Kilobits per second / expected students + staff (FTE) |
| Rated speed - background bandwidth / expected students + staff (FTE) = Purchased Kbps/headcount |
| Measured download speed (includes background bandwidth) / expected students + staff (FTE) = Measured download Kbps/headcount |
| Measured upload speed (includes background bandwidth) / expected students + staff (FTE) = Measured upload Kbps/headcount |

## Distribution Equipment Information

*Network and Internet Appliance Devices between LAN and Contracted Provider*

| | |
|---|---|
| The maximum rated speed (Ethernet) of this equipment is (in Mbps): | 1000 |
| The rated speed (Ethernet), per headcount, is estimated to be: | 333,289.34 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Ethernet) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 140 % |
| The cost to improve the throughput speed to 1,000Kbps/headcount is: | $49,760.20 |

**Status of Wired Infrastructure**

## Existing School Network Switch Equipment for LAN

| | |
|---|---|
| The maximum rated throughput speed for the LAN equipment is (in Mbps): | 10000 |
| The rated speed (LAN equipment), per headcount, is estimated to be: | 9,999,956.01 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Equipment) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 140 % |

| | |
|---|---|
| The cost to improve/sustain throughput speed to support 1,000Kbps/headcount is: | $22,887.10 |
| The cost to improve facility MDF/IDF's to standard network environment is: | $0.00 |

## Existing School Network LAN Cabling

| | |
|---|---|
| The percentage of cabling installed prior to the CAT 5e/6 standard in 2002? | 0.00 % |
| The maximum general speed of current cabling (in Mbps) is: | 1000 |
| The rated speed (cabling), per headcount, is estimated to be: | 333,289.34 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Cabling) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The cost to improve cable throughput speed to support 1,000 Kbps/headcount is: | $0.00 |

## Status of Wireless Infrastructure

| | |
|---|---|
| The current approximate percentage of educational coverage is: | 0 % |
| The # of additional AP's to meet 1 AP per classroom: | 0 |
| The percent probability this equipment WILL NOT perform another 3-5 years: | 60 % |
| The cost to improve wireless to meet 1 AP per classroom: | $0.00 |

## Summary of Costs to Improve

## Summary of Annual Costs to Improve to 1 Mbps per Student and Staff

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Broadband Transport Media annually to 1000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband Service annually to 1000Kbps/headcount is: | $0.00 | $0.00 | |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)

Multi-School, Direct Connection via a Non-School Facility, Status Report

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Distribution Equipment: | $49,760.20 | $39,147.00 | $10,613.20 |
| The cost to improve/sustain the Wired Network: | $22,887.10 | $17,585.50 | $5,301.60 |
| The cost to improve facility MDF/IDF's environment: | $0.00 | $0.00 | |
| The cost to improve cabling infrastructure: | $0.00 | $0.00 | $0.00 |
| The cost to improve/sustain the Wireless network: | $0.00 | $0.00 | $0.00 |
| The cost to add monitor capability: | $11,599.38 | $9,094.45 | $2,504.93 |
| Totals: | $84,246.68 | $65,826.95 | $18,419.73 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Multi-School, Direct Connection via a School Facility, Status Report

## School Information

**Shiprock High School**
US-64, Shiprock, NM, 87420
San Juan
Central Cons School Dist 22

| | | | |
|---|---|---|---|
| School ID: | 067039 | School Category: | Traditional |
| Latitude: | 36.77515 | School Type: | Senior |
| Longitude: | -108.70919 | Grades Served: | 9 - 12 |
| District ID: | 67 | Gross Sq. Footage: | 217,812 |

| | | | |
|---|---|---|---|
| E-Rate Classification/Year 2014-2015: | Rural | E-Rate Percentage/Year 2014-2015: | 50 - 74% |
| School Current Enrollment: | 603 | School Current FTE Count: | 61 |
| School Projected (5-year) Enrollment: | 629 | School Capacity Enrollment: | 1214 |

| | |
|---|---|
| Number of Students that can Concurrently Take a PARCC Test: | 350 |
| The percentage (%) of the PARCC Test Available Via a Test Proctor Cache or a WEB Caching Server: | 100 % |

| | | | |
|---|---|---|---|
| Frequency of Power Related Issues: | once a quarter | Name of Electric Power Provider: | Navajo Tribal Utilities |
| Capable of remotely monitoring IT infrastructure and speed: | No | Cost to add monitor capability: | $11,599.38 |
| School general background internet bandwidth used in Kbps: | 17415.60 | | |
| Total all schools general background internet used in Kbps: | 87141.31 | | |

| | | | |
|---|---|---|---|
| Number of FTE supporting IT: | 0.5 | Estimated number of network devices being supported: | 20 |
| % of IT-FTE network tasks: | 10 % | | |

| | |
|---|---|
| Cost analysis of Network-IT FTE support for this facility, contracted or staff, is estimated annually to be: | $2,000.00 |
| Recommended IT-FTE cost based on Industry Standard number of network devices and annual support cost/device is: | $21,240.00 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Multi-School, Direct Connection via a School Facility, Status Report

**Status of Broadband Connection and Distribution Equipment**

## Broadband Connection Information

| | |
|---|---|
| The Broadband Internet Service Provider is: | Frontier Communications |
| The Internet Service is provided via (media type/circuit): | Ethernet (fiber/copper) |
| The annual cost of this ISP service package is: | $73,464.00 |
| The annual charge of the "internet" service is: | $73,464.00 |
| The annual charge of the "physical" connection is: | $0.00 |
| School rating of the Internet connection: (1 – low, 10 – highest) | 3 |
| School general quality/deficiency comments: | |
| Occasional short term outages | |
| The maximum rated DOWNLOAD speed of the Broadband connection is (in Mbps): | 150 |
| The rated DOWNLOAD speed, per headcount, is estimated to be: | 21.34 Kbps/headcount |
| The maximum rated UPLOAD speed of the Broadband connection is (in Mbps): | 150 |
| The rated UPLOAD speed, per headcount, is estimated to be: | 21.34 Kbps/headcount |
| The average measured DOWNLOAD speed from ISP is (in Mbps): | 15.87 |
| The measured DOWNLOAD speed, per headcount, is estimated to be: | 5.39 Kbps/headcount |
| The average measured UPLOAD speed from the ISP is (in Mbps): | 15.34 |
| The measured UPLOAD speed, per headcount, is estimated to be: | 5.21 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Download Speed | Fail | Fail | Fail | Fail |
| Rated Upload Speed | Fail | Fail | Fail | Fail |
| Measured Download Speed | Fail | Fail | Fail | Fail |
| Measured Upload Speed | Fail | Fail | Fail | Fail |

| | Transport Media $ | ISP Service $ |
|---|---|---|

| | Capital Cost | Operational Cost | |
|---|---|---|---|
| The cost to improve the Broadband connection annually to 100 Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 300Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 600Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 1,000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |

| Broadband Deficiencies Correction Program formulas |
|---|
| Kbps/headcount = Kilobits per second / Total all expected students + staff (FTE) (this School plus all Dependent Schools) |
| Rated speed - Total all background bandwidth / Total all expected students + staff = Purchased Kbps/headcount |
| Measured download speed (includes background bandwidth) / Total all expected students + staff = Measured download Kbps/headcount |
| Measured upload speed (includes background bandwidth) / Total all expected students + staff = Measured upload Kbps/headcount |

## Distribution Equipment Information

*Network and Internet Appliance Devices between LAN and Contracted Provider*

| | |
|---|---|
| The maximum rated speed (Ethernet) of this equipment is (in Mbps): | 1000 |
| The rated speed (Ethernet), per headcount, is estimated to be: | 1,424.04 (Kbps/headcount) |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Ethernet) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 80 % |
| The cost to improve the throughput speed to 1,000Kbps/headcount is: | $49,760.20 |

**Status of Wired Infrastructure**

## Existing School Network Switch Equipment for LAN

| | |
|---|---|
| The maximum rated throughput speed for the LAN equipment is (in Mbps): | 1000 |
| The rated speed (LAN equipment), per headcount, is estimated to be: | 3,943.01 (Kbps/headcount) |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Equipment) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 140 % |
| The cost to improve/sustain throughput speed to support 1,000Kbps/headcount is: | $194,673.47 |
| The cost to improve facility MDF/IDF's to standard network environment is: | $31,500.00 |

## Existing School Network LAN Cabling

| | |
|---|---|
| The percentage of cabling installed prior to the CAT 5e/6 standard in 2002? | 90.00 % |
| The maximum general speed of current cabling (in Mbps) is: | 100 |
| The rated speed (cabling), per headcount, is estimated to be: | 119.69 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Cabling) | Pass | Fail | Fail | Fail |

| | |
|---|---|
| The cost to improve cable throughput speed to support 1,000 Kbps/headcount is: | $686,107.80 |

## Status of Wireless Infrastructure

| | |
|---|---|
| The current approximate percentage of educational coverage is: | 100 % |
| The # of additional AP's to meet 1 AP per classroom: | 0 |
| The percent probability this equipment WILL NOT perform another 3-5 years: | 40 % |
| The cost to improve wireless to meet 1 AP per classroom: | $0.00 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)

Multi-School, Direct Connection via a School Facility, Status Report

## Summary of Costs to Improve

## Summary of Annual Costs to Improve to 1 Mbps per Student and Staff

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Broadband Transport Media annually to 1000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband Service annually to 1000Kbps/headcount is: | $0.00 | $0.00 | |

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Distribution Equipment: | $49,760.20 | $39,147.00 | $10,613.20 |
| The cost to improve/sustain the Wired Network: | $194,673.47 | $151,158.67 | $43,514.80 |
| The cost to improve facility MDF/IDF's environment: | $31,500.00 | $31,500.00 | |
| The cost to improve cabling infrastructure: | $686,107.80 | $686,107.80 | $0.00 |
| The cost to improve/sustain the Wireless network: | $0.00 | $0.00 | $0.00 |
| The cost to add monitor capability: | $11,599.38 | $9,094.45 | $2,504.93 |
| Totals: | $973,640.85 | $917,007.92 | $56,632.93 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Multi-School, Direct Connection via a School Facility, Status Report

## School Information

**Newcomb High School**
Mile 57 Highway 491, Newcomb, NM, 87455
San Juan
Central Cons School Dist 22

| | | | |
|---|---|---|---|
| School ID: | 067130 | School Category: | Traditional |
| Latitude: | 36.280579 | School Type: | Senior |
| Longitude: | -108.707869 | Grades Served: | 9 - 12 |
| District ID: | 67 | Gross Sq. Footage: | 102,089 |

| | | | |
|---|---|---|---|
| E-Rate Classification/Year 2014-2015: | Rural | E-Rate Percentage/Year 2014-2015: | 75 - 100% |
| School Current Enrollment: | 250 | School Current FTE Count: | 57 |
| School Projected (5-year) Enrollment: | 250 | School Capacity Enrollment: | 802 |

| | |
|---|---|
| Number of Students that can Concurrently Take a PARCC Test: | 250 |
| The percentage (%) of the PARCC Test Available Via a Test Proctor Cache or a WEB Caching Server: | 100 % |

| | | | |
|---|---|---|---|
| Frequency of Power Related Issues: | once a day | Name of Electric Power Provider: | NTUA |
| Capable of remotely monitoring IT infrastructure and speed: | No | Cost to add monitor capability: | $11,599.38 |
| School general background internet bandwidth used in Kbps: | 7748.68 | | |
| Total all schools general background internet used in Kbps: | 15518.41 | | |

| | | | |
|---|---|---|---|
| Number of FTE supporting IT: | 0.25 | Estimated number of network devices being supported: | 13 |
| % of IT-FTE network tasks: | 10 % | | |

| | |
|---|---|
| Cost analysis of Network-IT FTE support for this facility, contracted or staff, is estimated annually to be: | $1,000.00 |
| Recommended IT-FTE cost based on Industry Standard number of network devices and annual support cost/device is: | $13,806.00 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Multi-School, Direct Connection via a School Facility, Status Report

**Status of Broadband Connection and Distribution Equipment**

## Broadband Connection Information

| | |
|---|---|
| The Broadband Internet Service Provider is: | Frontier Communications |
| The Internet Service is provided via (media type/circuit): | Ethernet (fiber/copper) |
| The annual cost of this ISP service package is: | $77,448.00 |
| The annual charge of the "internet" service is: | $77,448.00 |
| The annual charge of the "physical" connection is: | $0.00 |
| School rating of the Internet connection: (1 – low, 10 – highest) | 5 |
| School general quality/deficiency comments: | |
| Daily short term outages | |
| The maximum rated DOWNLOAD speed of the Broadband connection is (in Mbps): | 150 |
| The rated DOWNLOAD speed, per headcount, is estimated to be: | 150.09 Kbps/headcount |
| The maximum rated UPLOAD speed of the Broadband connection is (in Mbps): | 150 |
| The rated UPLOAD speed, per headcount, is estimated to be: | 150.09 Kbps/headcount |
| The average measured DOWNLOAD speed from ISP is (in Mbps): | 18.60 |
| The measured DOWNLOAD speed, per headcount, is estimated to be: | 20.76 Kbps/headcount |
| The average measured UPLOAD speed from the ISP is (in Mbps): | 53.15 |
| The measured UPLOAD speed, per headcount, is estimated to be: | 59.32 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Download Speed | Pass | Fail | Fail | Fail |
| Rated Upload Speed | Pass | Fail | Fail | Fail |
| Measured Download Speed | Fail | Fail | Fail | Fail |
| Measured Upload Speed | Fail | Fail | Fail | Fail |

| | Transport Media $ | ISP Service $ |
|---|---|---|

| | Capital Cost | Operational Cost | |
|---|---|---|---|
| The cost to improve the Broadband connection annually to 100 Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 300Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 600Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 1,000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |

| Broadband Deficiencies Correction Program formulas |
|---|
| Kbps/headcount = Kilobits per second / Total all expected students + staff (FTE) (this School plus all Dependent Schools) |
| Rated speed - Total all background bandwidth / Total all expected students + staff = Purchased Kbps/headcount |
| Measured download speed (includes background bandwidth) / Total all expected students + staff = Measured download Kbps/headcount |
| Measured upload speed (includes background bandwidth) / Total all expected students + staff = Measured upload Kbps/headcount |

## Distribution Equipment Information

*Network and Internet Appliance Devices between LAN and Contracted Provider*

| | |
|---|---|
| The maximum rated speed (Ethernet) of this equipment is (in Mbps): | 1000 |
| The rated speed (Ethernet), per headcount, is estimated to be: | 3,232.09 (Kbps/headcount) |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Ethernet) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 20 % |
| The cost to improve the throughput speed to 1,000Kbps/headcount is: | $0.00 |

**Status of Wired Infrastructure**

## Existing School Network Switch Equipment for LAN

| | |
|---|---|
| The maximum rated throughput speed for the LAN equipment is (in Mbps): | 1000 |
| The rated speed (LAN equipment), per headcount, is estimated to be: | 1,517.97 (Kbps/headcount) |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Equipment) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 140 % |
| The cost to improve/sustain throughput speed to support 1,000Kbps/headcount is: | $181,297.86 |
| The cost to improve facility MDF/IDF's to standard network environment is: | $1,500.00 |

## Existing School Network LAN Cabling

| | |
|---|---|
| The percentage of cabling installed prior to the CAT 5e/6 standard in 2002? | 90.00 % |
| The maximum general speed of current cabling (in Mbps) is: | 100 |
| The rated speed (cabling), per headcount, is estimated to be: | 300.49 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Cabling) | Pass | Pass | Fail | Fail |

| | |
|---|---|
| The cost to improve cable throughput speed to support 1,000 Kbps/headcount is: | $321,580.35 |

## Status of Wireless Infrastructure

| | |
|---|---|
| The current approximate percentage of educational coverage is: | 100 % |
| The # of additional AP's to meet 1 AP per classroom: | 17 |
| The percent probability this equipment WILL NOT perform another 3-5 years: | 60 % |
| The cost to improve wireless to meet 1 AP per classroom: | $35,753.86 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Multi-School, Direct Connection via a School Facility, Status Report

**Summary of Costs to Improve**

## Summary of Annual Costs to Improve to 1 Mbps per Student and Staff

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Broadband Transport Media annually to 1000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband Service annually to 1000Kbps/headcount is: | $0.00 | $0.00 | |

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Distribution Equipment: | $0.00 | $0.00 | $0.00 |
| The cost to improve/sustain the Wired Network: | $181,297.86 | $141,646.27 | $39,651.60 |
| The cost to improve facility MDF/IDF's environment: | $1,500.00 | $1,500.00 | |
| The cost to improve cabling infrastructure: | $321,580.35 | $321,580.35 | $0.00 |
| The cost to improve/sustain the Wireless network: | $35,753.86 | $27,597.06 | $8,156.80 |
| The cost to add monitor capability: | $11,599.38 | $9,094.45 | $2,504.93 |
| Totals: | $551,731.45 | $501,418.13 | $50,313.33 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Single School, Direct ISP Connection, Status Report

## School Information

**Ojo Amarillo Elementary School**
Napi Farm Lands, Fruitland, NM, 87416
San Juan
Central Cons School Dist 22

| | | | |
|---|---|---|---|
| School ID: | 067075 | School Category: | Traditional |
| Latitude: | 36.694027 | School Type: | Elementary |
| Longitude: | -108.370559 | Grades Served: | K - 6 |
| District ID: | 67 | Gross Sq. Footage: | 79,565 |

| | | | |
|---|---|---|---|
| E-Rate Classification/Year 2014-2015: | Rural | E-Rate Percentage/Year 2014-2015: | 75 - 100% |
| School Current Enrollment: | 444 | School Current FTE Count: | 36 |
| School Projected (5-year) Enrollment: | 476 | School Capacity Enrollment: | 585 |

| | |
|---|---|
| Number of Students that can Concurrently Take a PARCC Test: | 154 |
| The percentage (%) of the PARCC Test Available Via a Test Proctor Cache or a WEB Caching Server: | 100 % |

| | | | |
|---|---|---|---|
| Frequency of Power Related Issues: | several times a quarter | Name of Electric Power Provider: | NTUA |
| Capable of remotely monitoring IT infrastructure and speed: | No | Cost to add monitor capability: | $11,599.38 |
| School general background internet bandwidth used in Kbps: | 4357.12 | | |

| | | | |
|---|---|---|---|
| Number of FTE supporting IT: | 0.5 | Estimated number of network devices being supported: | 14 |
| % of IT-FTE network tasks: | 5 % | | |

| | |
|---|---|
| Cost analysis of Network-IT FTE support for this facility, contracted or staff, is estimated annually to be: | $1,000.00 |
| Recommended IT-FTE cost based on Industry Standard number of network devices and annual support cost/device is: | $14,868.00 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Single School, Direct ISP Connection, Status Report

**Status of Broadband Connection and Distribution Equipment**

## Broadband Connection Information

| | |
|---|---|
| The Broadband Internet Service Provider is: | Sacred Wind Communications |
| The Internet Service is provided via (media type/circuit): | Ethernet (fiber/copper) |
| The annual cost of this ISP service package is: | $77,340.00 |
| The annual charge of the "internet" service is: | $77,340.00 |
| The annual charge of the "physical" connection is: | $0.00 |
| School rating of the Internet connection: (1 – low, 10 – highest) | 5 |
| School general quality/deficiency comments: | |
| Occasional long term outages | |
| The maximum rated DOWNLOAD speed of the Broadband connection is (in Mbps): | 100 |
| The rated DOWNLOAD speed, per headcount, is estimated to be: | 186.80 Kbps/headcount |
| The maximum rated UPLOAD speed of the Broadband connection is (in Mbps): | 100 |
| The rated UPLOAD speed, per headcount, is estimated to be: | 186.80 Kbps/headcount |
| | |
| The average measured DOWNLOAD speed from ISP is (in Mbps): | 89.21 |
| The measured DOWNLOAD speed, per headcount, is estimated to be: | 174.24 Kbps/headcount |
| The average measured UPLOAD speed from the ISP is (in Mbps): | 90.31 |
| The measured UPLOAD speed, per headcount, is estimated to be: | 176.39 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Download Speed | Pass | Fail | Fail | Fail |
| Rated Upload Speed | Pass | Fail | Fail | Fail |
| Measured Download Speed | Pass | Fail | Fail | Fail |
| Measured Upload Speed | Pass | Fail | Fail | Fail |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Single School, Direct ISP Connection, Status Report

| | Transport Media $ | | ISP Service $ |
|---|---|---|---|
| | Capital Costs | Operational Costs | |
| The cost to improve the Broadband connection annually to 100 Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 300Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 600Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 1,000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |

| Broadband Deficiencies Correction Program formulas |
|---|
| Kbps/headcount = Kilobits per second / expected students + staff (FTE) |
| Rated speed - background bandwidth / expected students + staff (FTE) = Purchased Kbps/headcount |
| Measured download speed (includes background bandwidth) / expected students + staff (FTE) = Measured download Kbps/headcount |
| Measured upload speed (includes background bandwidth) / expected students + staff (FTE) = Measured upload Kbps/headcount |

## Distribution Equipment Information

*Network and Internet Appliance Devices between LAN and Contracted Provider*

| | |
|---|---|
| The maximum rated speed (Ethernet) of this equipment is (in Mbps): | 1000 |
| The rated speed (Ethernet), per headcount, is estimated to be: | 1,944.62 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Ethernet) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 20 % |
| The cost to improve the throughput speed to 1,000Kbps/headcount is: | $0.00 Kbps/headcount |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Single School, Direct ISP Connection, Status Report

## Status of Wired Infrastructure

## Existing School Network Switch Equipment for LAN

| | |
|---|---|
| The maximum rated throughput speed for the LAN equipment is (in Mbps): | 1000 |
| The rated speed (LAN equipment), per headcount, is estimated to be: | 20,824.82 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Equipment) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 140 % |
| The cost to improve/sustain throughput speed to support 1,000Kbps/headcount is: | $114,495.64 |
| The cost to improve facility MDF/IDF's to standard network environment is: | $0.00 |

## Existing School Network LAN Cabling

| | |
|---|---|
| The percentage of cabling installed prior to the CAT 5e/6 standard in 2002? | 90.00 % |
| The maximum general speed of current cabling (in Mbps) is: | 100 |
| The rated speed (cabling), per headcount, is estimated to be: | 186.80 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Cabling) | Pass | Fail | Fail | Fail |

| | |
|---|---|
| The cost to improve cable throughput speed to support 1,000 Kbps/headcount is: | $250,629.75 |

## Status of Wireless Infrastructure

| | |
|---|---|
| The current approximate percentage of educational coverage is: | 100 % |
| The # of additional AP's to meet 1 AP per classroom: | 26 |
| The percent probability this equipment WILL NOT perform another 3-5 years: | 40 % |

| | |
|---|---|
| The cost to improve wireless to meet 1 AP per classroom: | $50,425.66 |

**Summary of Costs to Improve**

## Summary of Annual Costs to Improve to 1 Mbps per Student and Staff

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Broadband Transport Media annually to 1000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband Service annually to 1000Kbps/headcount is:: | $0.00 | $0.00 | |

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Distribution Equipment: | $0.00 | $0.00 | $0.00 |
| The cost to improve/sustain the Wired Network: | $114,495.64 | $87,987.64 | $26,508.00 |
| The cost to improve facility MDF/IDF's environment: | $0.00 | $0.00 | |
| The cost to improve cabling infrastructure: | $250,629.75 | $250,629.75 | $0.00 |
| The cost to improve/sustain the Wireless network: | $50,425.66 | $39,099.06 | $11,326.60 |
| The cost to add monitor capability: | $11,599.38 | $9,094.45 | $2,504.93 |
| Totals: | $427,150.43 | $386,810.90 | $40,339.53 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Single School, Direct ISP Connection, Status Report

## School Information

**Alma D'Arte Charter High Sch**
402 W Court Ave, Las Cruces, NM, 88005
Dona Ana
New Mexico Dept of Education

| | | | |
|---|---|---|---|
| School ID: | 511001 | School Category: | St. Charter |
| Latitude: | 32.31165 | School Type: | Senior |
| Longitude: | -106.78363 | Grades Served: | 9 - 12 |
| District ID: | 511 | Gross Sq. Footage: | 47,308 |

| | | | |
|---|---|---|---|
| E-Rate Classification/Year 2014-2015: | Urban | E-Rate Percentage/Year 2014-2015: | 50 - 74% |
| School Current Enrollment: | 280 | School Current FTE Count: | 28 |
| School Projected (5-year) Enrollment: | 280 | School Capacity Enrollment: | 280 |

| | |
|---|---|
| Number of Students that can Concurrently Take a PARCC Test: | 150 |
| The percentage (%) of the PARCC Test Available Via a Test Proctor Cache or a WEB Caching Server: | 100 % |

| | | | |
|---|---|---|---|
| Frequency of Power Related Issues: | rarely - once or twice a year | Name of Electric Power Provider: | El Paso Electric |
| Capable of remotely monitoring IT infrastructure and speed: | No | Cost to add monitor capability: | $11,599.38 |
| School general background internet bandwidth used in Kbps: | 13548.92 | | |

| | | | |
|---|---|---|---|
| Number of FTE supporting IT: | 1 | Estimated number of network devices being supported: | 11 |
| % of IT-FTE network tasks: | 10 % | | |

| | |
|---|---|
| Cost analysis of Network-IT FTE support for this facility, contracted or staff, is estimated annually to be: | $4,000.00 |
| Recommended IT-FTE cost based on Industry Standard number of network devices and annual support cost/device is: | $11,682.00 |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Single School, Direct ISP Connection, Status Report

**Status of Broadband Connection and Distribution Equipment**

## Broadband Connection Information

| | |
|---|---|
| The Broadband Internet Service Provider is: | MegaPath |
| The Internet Service is provided via (media type/circuit): | DSL |
| The annual cost of this ISP service package is: | $4,764.00 |
| The annual charge of the "internet" service is: | $4,764.00 |
| The annual charge of the "physical" connection is: | $0.00 |
| School rating of the Internet connection: (1 – low, 10 – highest) | 4 |
| School general quality/deficiency comments: | |
| Daily long periods of real slowness | |
| The maximum rated DOWNLOAD speed of the Broadband connection is (in Mbps): | 7 |
| The rated DOWNLOAD speed, per headcount, is estimated to be: | -21.26 Kbps/headcount |
| The maximum rated UPLOAD speed of the Broadband connection is (in Mbps): | 1 |
| The rated UPLOAD speed, per headcount, is estimated to be: | -40.74 Kbps/headcount |
| The average measured DOWNLOAD speed from ISP is (in Mbps): | 2.19 |
| The measured DOWNLOAD speed, per headcount, is estimated to be: | 7.11 Kbps/headcount |
| The average measured UPLOAD speed from the ISP is (in Mbps): | 2.07 |
| The measured UPLOAD speed, per headcount, is estimated to be: | 6.71 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Download Speed | Fail | Fail | Fail | Fail |
| Rated Upload Speed | Fail | Fail | Fail | Fail |
| Measured Download Speed | Fail | Fail | Fail | Fail |
| Measured Upload Speed | Fail | Fail | Fail | Fail |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Single School, Direct ISP Connection, Status Report

| | Transport Media $ | | ISP Service $ |
|---|---|---|---|
| | Capital Costs | Operational Costs | |
| The cost to improve the Broadband connection annually to 100 Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 300Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 600Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband connection annually to 1,000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |

| Broadband Deficiencies Correction Program formulas |
|---|
| Kbps/headcount = Kilobits per second / expected students + staff (FTE) |
| Rated speed - background bandwidth / expected students + staff (FTE) = Purchased Kbps/headcount |
| Measured download speed (includes background bandwidth) / expected students + staff (FTE) = Measured download Kbps/headcount |
| Measured upload speed (includes background bandwidth) / expected students + staff (FTE) = Measured upload Kbps/headcount |

## Distribution Equipment Information

*Network and Internet Appliance Devices between LAN and Contracted Provider*

| | |
|---|---|
| The maximum rated speed (Ethernet) of this equipment is (in Mbps): | 100 |
| The rated speed (Ethernet), per headcount, is estimated to be: | 280.69 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Ethernet) | Pass | Fail | Fail | Fail |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 40 % |
| The cost to improve the throughput speed to 1,000Kbps/headcount is: | $31,762.60 Kbps/headcount |

# New Mexico Public School Facilities Authority

Broadband Deficiencies Correction Program (BDCP)
Single School, Direct ISP Connection, Status Report

## Status of Wired Infrastructure

## Existing School Network Switch Equipment for LAN

| | |
|---|---|
| The maximum rated throughput speed for the LAN equipment is (in Mbps): | 1000 |
| The rated speed (LAN equipment), per headcount, is estimated to be: | 2,932.20 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Equipment) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The percent probability this equipment WILL NOT perform another 3-5 years: | 100 % |
| The cost to improve/sustain throughput speed to support 1,000Kbps/headcount is: | $113,849.78 |
| The cost to improve facility MDF/IDF's to standard network environment is: | $0.00 |

## Existing School Network LAN Cabling

| | |
|---|---|
| The percentage of cabling installed prior to the CAT 5e/6 standard in 2002? | 0.00 % |
| The maximum general speed of current cabling (in Mbps) is: | 1000 |
| The rated speed (cabling), per headcount, is estimated to be: | 3,202.76 Kbps/headcount |

| | 100 Kbps | 300 Kbps | 600 Kbps | 1000 Kbps |
|---|---|---|---|---|
| Rated Speed (Cabling) | Pass | Pass | Pass | Pass |

| | |
|---|---|
| The cost to improve cable throughput speed to support 1,000 Kbps/headcount is: | $0.00 |

## Status of Wireless Infrastructure

| | |
|---|---|
| The current approximate percentage of educational coverage is: | 85 % |
| The # of additional AP's to meet 1 AP per classroom: | 14 |
| The percent probability this equipment WILL NOT perform another 3-5 years: | 40 % |

| | |
|---|---|
| The cost to improve wireless to meet 1 AP per classroom: | $23,222.80 |

## Summary of Costs to Improve

## Summary of Annual Costs to Improve to 1 Mbps per Student and Staff

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Broadband Transport Media annually to 1000Kbps/headcount is: | $0.00 | $0.00 | $0.00 |
| The cost to improve the Broadband Service annually to 1000Kbps/headcount is:: | $0.00 | $0.00 | |

| | Total Cost | Capital Cost | Operational Cost |
|---|---|---|---|
| The cost to improve the Distribution Equipment: | $31,762.60 | $24,149.00 | $7,613.60 |
| The cost to improve/sustain the Wired Network: | $113,849.78 | $89,743.38 | $24,106.40 |
| The cost to improve facility MDF/IDF's environment: | $0.00 | $0.00 | |
| The cost to improve cabling infrastructure: | $0.00 | $0.00 | $0.00 |
| The cost to improve/sustain the Wireless network: | $23,222.80 | $18,292.00 | $4,930.80 |
| The cost to add monitor capability: | $11,599.38 | $9,094.45 | $2,504.93 |
| Totals: | $180,434.56 | $141,278.83 | $39,155.73 |