

Elementary and Secondary Education Access Infrastructure Technology Bond

State-wide Fact Sheet based on RIDE Data and Technology Capacity Survey:

Number of students state-wide:	142,854
Number of teachers in classrooms state-wide:	12,800
Number of buildings requiring wireless infrastructure:	300
Number of instructional areas (IA's)* state-wide:	9,450
Number of computers in classrooms state-wide:	20,178
Number of computers in labs, on carts and school libraries:	17,281

*IA's = classrooms, libraries, study areas and computer labs in schools.

Glossary of technology components (cost) the bond will fund in schools:

- Wireless Access Points (AP) (\$1,250 each installed) and Network Controllers: These devices will be physically located in a classroom allowing computers to connect to the school's local area network (LAN) thus in turn to the Internet (WWW) and therefore to RIDE's state-wide intra-net. All access points will have the required security measures installed. Network controllers are required to manage the interoperability of all AP's throughout the school's data network.
- Cat5 Cabling (\$300 each): Access points require this high quality cabling to connect to the school's data network switching fabric.
- Power-over-Ethernet Switches (\$4,500 each installed): These switches connect all computing devices on the school's data network to each other and the router to the Internet and the state-wide intra-net. The switches also provide the power to operate the AP's.
- Network Routers (\$20,000 each installed): These devices connect the school's data network to the RITEAF data circuits that carry educational data to and from the Internet and state-wide intra-net where RTTT data platforms reside.
- Building Site Survey (\$5,000 each): Every school must be tested for wireless signal strength in order to properly configure the wireless access.

Shared Project Components:

- Project management costs (\$500,000): Accountability is essential and these costs will cover administration and oversight, including the awarding, monitoring, reporting and auditing, of the \$25 million technology bond program.
- Replacement costs (\$2,300,000): Estimated costs to replace "non-compatible" access points and controllers currently in schools.

Cost Estimates

The cost estimates are preliminary and exact costs can only be determined by individual site surveys to be conducted by a certified wireless vendor. The pricing offered on the components is applicable to most wireless vendor solutions. They represent enterprise grade access points that are required for system administration, network load balancing, encryption/security features and management services. The number of access points, controllers and switches will vary slightly based on the school's physical attributes. Wiring cost can be the major variable as labor costs and code requirements can be very expensive. The certified vendor verification process is a critical element to establishing a precise budget.

Federal E-Rate Match

There is the potential that some Federal matching funds may be available for this project under the Priority 2 funding category of the E-Rate program. Under the current E-Rate guidelines 68 schools could potentially qualify for over \$4,500,000 in matching funds for wireless access infrastructure investments. It is very difficult to precisely forecast the impact, if any, of this funding opportunity as the eligibility requirements and benefits change annually. Priority 2 funding is designated for "internal connections" which are used to access the Internet from classrooms within eligible schools. All components of this project are eligible for support under current E-Rate rules. Eligibility for Priority 2 funding is limited to only schools where 75% or more of the students participate in the Federal free or reduced lunch program. These schools will receive matching Federal funds equal to 90% of the component costs.

Telecommunications Education Access Fund (RITEAF)

While this investment in technology infrastructure is essential for the future and progress of the children of our state equally important is the amount of bandwidth that must be expanded to meet the increased demand of data flows to and from our schools and libraries. The Governor's budget also proposes to amend the Rhode Island Telecommunications Education Access Fund (RITEAF) statute to reduce the landline assessed monthly surcharge from \$0.26 to \$0.15, but expands the charge to include all wireless instruments and cellular devices. Every dollar generated under this surcharge leverages an additional \$1.50 in federal E-Rate matching dollars. The revised surcharge structure is, not only a more sustainable source of revenue for the required bandwidth, but it is also anticipated to raise approximately \$700,000 in new RITEAF funding, which would leverage an additional \$1.1 million in federal funding for \$1.8 million in new available funding for the schools and libraries critical data requirements.

The data needs for educational instruction content and RTTT data systems are growing rapidly with every passing day. The funds from the technology bond and the RITEAF proposal will ensure that our students and teachers have the access they require for evolving e-learning programs, data systems and instructional tools that will allow Rhode Island to compete with other states and in the global economy.