



A White Paper from

 **Techcare**™

## K-12 Technology Support Requirements

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Refreshing the Vision and Plan - an opportunity to consider alternative models for providing technology support, management and strategic direction.

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### ABOUT THE AUTHOR

In 1987, Steve left his career as a CPA to take the "easy" road of starting a networking VAR. Steve, his partners and staff have worked to grow Techcare to be a successful and profitable company serving Small Business and various niche markets in the Chicago area, including the Creative and K-12 Education markets.

Techcare has been a top performer in industry peer groups, and is actively investing to address customer needs in the area of Managed Technology Support Services. Steve has participated in various industry and vertical market affiliations, including representing Venture Tech members on the VTN U.S. Advisory Council. Steve has been a speaker at various industry trade shows for the small business, Graphic Arts and Education industries.



### **White Paper Discussion**

Technology Support Service Requirements to Support the Technology Vision and Plan in K-12 Schools and Districts

*“Lower the overall cost of support while increasing the impact technology has on student learning and the learning process”*

### **Overview and Position**

For over 19 years, Graphtech has been providing technology solutions for K-12 education clients in ways that can lower the overall cost of support while increasing the impact technology has on student learning and the learning process.

Graphtech believes that a District or School’s technology support should align with educational goals and maximize the instructional impact of the technology tools and resources deployed. Our team of education specialists and cross-platform technology experts allow us to advise, plan, implement and support a district or school’s specific technology vision and mission.

It is this philosophy that has allowed Graphtech to create and maintain strong and extended relationships with our educational clients. We truly partner with our clients, allowing them to focus on their core mission by lowering the time on task, system downtime, total cost and complexity of IT support in general.

*“District’s various stakeholders often communicate the desire for maintaining or improving the objectives that should result from the use of Educational Technologies”*

### **Background and Understanding**

Many Districts have completed or have plans to complete significant upgrades or rollouts of various instructional and office technology systems. With the right leadership and vision, we see an ongoing commitment to a strong educational technology initiative over the short and long-terms, including an appropriate refresh plan. However, there are growing concerns being expressed that traditional district technology support teams might not have (or maintain) the skills, budget or time to support the environment going forward. These conditions afford an opportunity to consider alternative models for providing technology support, management and strategic direction.

Over time, a District’s various stakeholders often communicate the desire for maintaining or improving the objectives that should result from the use of Educational Technologies, as well as Operational Technologies. And while there exists excellent staff, solid curriculum and a strong technology infrastructure in many Districts, the need to sustain the momentum or at least maintain the installed base, presents a perfect opportunity to review and update existing technology support and deployment models.

### Technology and Technology Support Definition

Within the buildings that make up our school districts, there are two primary types of technologies; Educational/Instructional Technology and Operational Technology, defined as follows:

*“There are two primary types of technologies; Educational/Instructional Technology and Operational Technology”*

**Educational or instructional technology** can at times be hard to define. At its simplest, it can be the use of technology to support learning or assist in the teaching/learning process. This would include any recently created tool (within the last 10 years) used in the educational environment to improve student learning (see NCREL-“engage model”). This in no way discounts the role of older technologies, but places the focus on the incorporation and integration of newer forms of technology and instructional delivery methods. Often we only look at those systems that students have access to during their instructional periods, but we must not forget the systems, tools, data and processes that allow educators to 1) design instruction, 2) produce instructional products and services, 3) deliver and manage instruction, and 4) evaluate technology tools being deployed along with a comparison of the of the old instructional model vs. newly developed methods.

**Operational technologies** include the overall infrastructure that supports the collaborative aspects of district operations, including:

- Network Infrastructure
- Servers and backup systems
- Data Security
- Communication tools, including e-mail, Intranet, phone systems (VoIP), web servers, etc.
- Databases, including financial
- Office systems, including e-mail, for collaboration and communication, and calendars
- Systems used by administrative non-educators within the District include security systems, lunch systems, student information, human resources, health and PE/trainer systems.



## K-12 Technology Support Requirements

*“At the end of the day, a good technology support plan will help a District move away from simply managing the problems on the network and computers, towards managing end-user expectations”*

**Technology Support** in a District should be designed to enable all users to gain greater benefits from the investment in technology by using the right resource at the right time in managing network infrastructure, security, data and communications and providing desktop support services

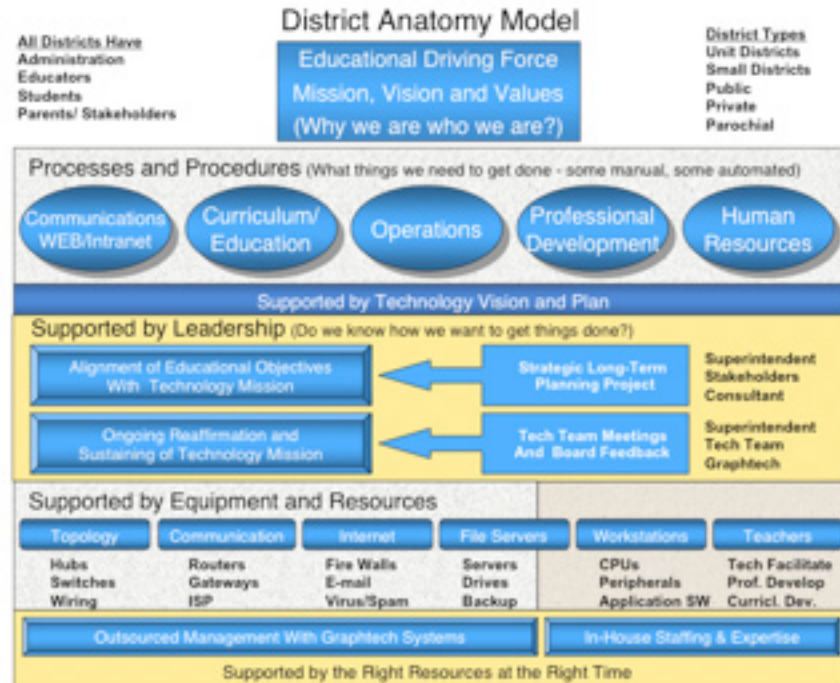
Outsourcing certain of these requirements would also allow a District’s staff to focus their efforts and resources on elements of the technology investment that are instructional in nature, unique and core to the district mission. At the end of the day, a good technology support plan will help a District move away from simply managing the problems on the network and computers, towards managing end-user expectations – so that the use of the tools will meet the specific and identified needs of the user(s).

Over time, and with proper organization and leadership, the IT support team can move up the curve from “fire fighting”, past “reactive support”, past basic “proactive support”, to the level of providing the right resource at the right time to the various users in the Schools.



# K-12 Technology Support Requirements

## A Collaborative Support Model



*“It stands to reason that the foundation needs to be maintained and aligned with the Mission”*

Graphtech’s view is that no matter how technology is used day-to-day, a District’s overall mission and vision is supported by a specific foundation, This foundation, made up of people, processes and resources is held up, at its core, by a set of technology based resources, including computers, software, networks, peripherals, printers, data and databases, educational tools, communications tools and the internet.

In today’s technical, data driven world where NCLB and AYP, on line reports and data analysis all require a working and efficient technology infrastructure and foundation, it stands to reason that the foundation needs to be maintained and aligned with the Mission.



## K-12 Technology Support Requirements

*“The primary goals of the Instructional Technology Director / Coordinator and/or Tech Facilitators are to assist the in defining and emphasizing the infusion of technology into the curriculum”*

**A Technology Support Model** that should apply well at a District with a strong foundation in technology is one that uses the best practice of building a collaborative team comprised of:

- Educators
- Administrators
- IT staff
- Outsourced Resources

While a more detailed analysis and discussion might be in order for each individual institution, it is our general view that the following roles and skills be included within a District’s Technology Support Team:

**Instructional Technology Facilitation.** The primary goals of the Instructional Technology Director / Coordinator and/or Tech Facilitators are to assist the in defining and emphasizing the infusion of technology into the curriculum. Those responsible should bring both instructional and technological expertise into the classroom and the instructional model. They should:

- Evaluate the specific Professional Development needs of your teachers and educators
- Model the effective use of technology as part of classroom instruction
- Identify the strategies most appropriate to the specific courses being taught by individual teachers
- Evaluate Instructional technology needs in general, and assist in the creating / writing of the educational technology plan and developing the technology budget
- Assess the technology proficiency of staff
- Evaluate and support the use of Instructional Technologies and Software and web sites
- Observe teachers and help identify the training needs of each for improving their proficiency
- Assist students and teachers in the use of educational technology software and tools



## K-12 Technology Support Requirements

*“Graphtech recommends that an individual or individuals within the District be designated as “responsible” for the overall control of all Information Data Systems”*

**Data Management.** The primary goal of this role is to own the responsibility of safeguarding, managing and facilitating access to the various proprietary data sources within the District.

As information and data become even more mission critical in the performance of the District’s obligations to students, staff and parents, it becomes more apparent that a centralized strategy for managing the variety of systems will be beneficial. To that end, Graphtech recommends that an individual or individuals within the District be designated as “responsible” for the overall control of all Information Data Systems. This responsibility would include:

- Management of District Website and intranet
- Coordination of all database software vendor relationships, including upgrades, customization, contracts and new purchases
- Management of user requests for custom reports, training and customization
- Maintenance of documentation of the various information systems
- A more consistent methodology to manage privileges and access, requests for data exports and uploads and the tracking and resolution to user questions and requests
- Administration and management of these systems, allowing for a better understanding and a reduction of redundant data entry and duplicative reporting.
- Consolidation of electronic information such as curriculum, teacher tools and resources, special projects, etc.
- Development or purchase of new systems to assist in the management of information: Student Health Records, IEP’s and other varied but critical data systems not found in the SIS.



## K-12 Technology Support Requirements

*“This staff needs to be helpful, understand the mission, and have the skills needed to manage and prioritize multiple issues and needs on an ongoing basis”*

**End-User Help Desk (Level 1).** District staff, or Technology Specialists should be able to provide Level 1 Help Desk Support for users. This can be the first “face” of the IT team that many users will have contact with. As such, this staff needs to be helpful, understand the mission, and have the skills needed to manage and prioritize multiple issues and needs on an ongoing basis. Help desk capabilities include the ability to teach, and troubleshoot user use issues, but does not include fixing hardware/software compatibility issues:

- Teacher and staff workstations
- Student approved workstations
- Common supported applications (as identified) – Level 1
- Special and approved applications (as identified) – Level 1
- Printing, approved peripherals
- Classroom support in general
- Basic network connectivity and user login’s and account maintenance.
- Internet access

A Level 2 Tech (**see *outsource section below***) should be able to provide support for:

- Basic user access and setting on servers
- Assistance on LAN/WAN issues
- Escalation of critical issues to Network Manager
- Day-to-day interaction of NW resources such as backup
- Management of end-user issue resolution log
- Management of Web site content (coordination and facilitation)
- First tier coordination for such items as SPAM, e-mail, virus, backup, firewall



## K-12 Technology Support Requirements

*“Graphtech does recommend that your School’s various support staff undergo a Help Desk Essentials training to assist in their abilities to manage, prioritize and react to support issues in general”*

**ITC/Library Director(s).** The District Technology Support staff will coordinate with the District’s Library staff to provide support for your ITC library system through coordination of all software vendor relationships, including upgrades, customization, contracts and new purchases. Primary technology responsibilities of the Library staff include Information Literacy Instruction, Acceptable Use Instruction, policy development, professional development and ITC budget management.

**Other important members of the team.** The District should provide for individuals who will have either direct or indirect interaction with the IT support process on a regular and ongoing basis:

***Principals and/or Curriculum Directors*** – to communicate and support the District mission and expectations related to Instructional Technologies, staff development and curriculum, and to act as the liaison, when necessary, between Educators and the IT Support Team.

***Business Manager*** – to communicate and support the District mission and expectations related to Operational Technologies, administrative staff development and back office needs, and to act as the liaison, when necessary, between Administrators and the IT Support Team.

***Superintendent/Head of School*** – to communicate and support the overall District mission and expectations related to ALL Technologies, and to act as the guardian of the needs of all Staff, Students, Principals, Administrators and the IT Support Team.

**Break-fix Support.** Warranty and third party support should be providing, as part of any initiative, the on-site and warranty resources required in managing the majority of hardware related break fix issues. However, Graphtech does recommend that your School’s various support staff undergo a Help Desk Essentials training to assist in their abilities to manage, prioritize and react to support issues in general.

*“There are two primary types of technologies; Educational/Instructional Technology and Operational Technology”*

### Outsourced Capabilities

Within the buildings that make up our school districts, there are two primary types of technologies; Educational/Instructional Technology and Operational Technology, defined as follows:

There is much support for the concept that a District could outsource certain IT support requirements that would allow the District to focus resources on those things that allow for uniqueness and are core in delivering your goals and objectives.

These outsourced capabilities are generally those skills that either:

- Are easily leveraged across many of our clients, simultaneously
- Require high-level skills, but are not needed by the schools daily, just on an as needed basis
- Are either too costly, defined by the salary of dedicated staff and continual training for them, or too hard to manage as a permanent position

The following services are considered appropriate to be outsourced within the School District structure:

1. **Level 2 Help Desk** – provide end user support as an escalation from internal staff, or in those specialized and unique areas that fall outside the scope of the internal staff’s duties, including PC support for office staff
2. **Level 2 and 3 Network Support** – provide escalation from internal help desk staff as well as provide for the ongoing proactive and remote management and monitoring of the entire network infrastructure



## K-12 Technology Support Requirements

3. **Network Management** – Proactive, remote and onsite management of the District or School’s network, including monitoring, backup verifications, server management, image management, escalation for network issues related to library, student management and financial systems, where direct support is provided by a third party.
4. **Technology Project Manager/Coordinator** – provide additional support in many areas but not limited to:
  - a. Technology planning and integration with your mission and vision
  - b. Overall IT support team coordination, mentoring, process review and reporting
  - c. Project management of significant IT projects (upgrades, new software adoptions, low voltage wiring in building construction)
  - d. Review and recommendations based on trends and best practices within education
  - e. Provide objective validation of goals, manage and communicate stakeholder expectations
  - f. Provide periodic written updates that can be used as deliverables to the various stakeholders
  - g. Provide a comprehensive technology assessment addressing the aspects of technology usage within the District. This includes instructional and non-instructional usage. This also includes an analysis of the organizational structure to support the technology initiatives and recommendations.
  - h. Assist appropriate staff in the filing of Federal E-rate forms.
  - i. Assist in the evaluation of specific instructional web sites and software in terms of the effect it would have on the system ie is it compatible and acceptable.

### **Conclusion**

In summary, Graphtech supports the trend of our K-12 Districts growing technologically and their continued commitment to technology in Instructional and Operational areas. We firmly believe that every school needs to assess its commitment to the sustainability of the technology investment, and to develop a strategy that takes into consideration potential staffing and organizational changes, allowing the District to focus on the instructional mission.

### **About the Sponsor**

Techcare, through a particular focus in continuing care, ensures our customers gain the maximum value from their IT investments through a progressive set of IT outsourcing services.

Techcare assumes accountability for the management of a variety of Information Technology services including server management, security and availability of the infrastructure, end user support and help desk, hardware repair, and responsibility for helping link technology investments to your business plan.

For more information on how Techcare can deliver the results expected from IT, please contact us at [info@techcare.com](mailto:info@techcare.com) or by calling 847.374.1600.

