

Enterprise Management Service (“EMS”)

To assist you with the management of BusinessPLUS, the Technical Solutions Group (“TSG”) offers the **Enterprise Management Service (“EMS”)**. EMS is a comprehensive solution that manages and maintains your self-hosted BusinessPLUS environment while allowing you to retain complete ownership, control, access, and integration capability. The scope of EMS includes the following.

1. Environment Monitoring

- Real-time monitoring of server hardware for performance and faulty hardware
- Real-time monitoring of the BusinessPLUS and SQL Server application logs
- Real-time monitoring of Microsoft Windows® operating system logs and resource utilization
- Real-time monitoring of virtualization hosts performance and utilization
- Monthly reporting of status and trending of performance, hard drive consumption, server uptime, and frequency of incidents and transactions

2. Software Update Service

- Choice of automated or on-demand installation of all BusinessPLUS version updates and upgrades, state and provincial reporting updates, and SQL Server updates
- Choice of automated or on-demand installation of all SIF agent updates and State Messaging Plugin updates
- Choice of automated or on-demand installation of all Microsoft Windows® operating system-related updates and upgrades
- Choice of automated or on-demand installation of all server-related third party software updates
- On demand deployment of Cognos updates.

3. Offsite Data Backup and Disaster Recovery

- Automated nightly compression, encryption, and transfer of BusinessPLUS/SQL Server files to a remote location for 365 days of retention (or longer by negotiation)
- In the case of a disaster, temporary hosting of the BusinessPLUS application for thirty (30) days on the TSG cloud platform
- Restoration of BusinessPLUS in the TSG temporary hosting environment within 24 hours

4. Data and Server Migrations and Restorations

- Same-day restoration of corrupted environment using most recent backup
- Completion of planned server migrations to new physical or virtual hardware
- Choice of automated or on-demand refreshes of data to a non-production environment with no limit on the number of refreshes

5. Infrastructure Support

- Pro-active intervention and response to performance situations identified by our monitoring protocols
- Telephone and email escalations directly to TSG twenty-four hours/day Monday through Thursday, Fridays from Midnight to 9:00 PM, Saturdays from 4:00 AM to 6:00 PM, and Sundays from 4:00 AM to 6:00 PM and 9:00 PM to Midnight Pacific Time (excluding joint US and Canadian holidays and unless otherwise specified or negotiated)
- One-hour Service Level Agreement for responses to all EMS needs

6. Secondary/Non-Production Instance Coverage

- Installation and configuration of BusinessPLUS and SQL Server on secondary servers
- Enrollment of secondary instances of BusinessPLUS into monitoring, version administration, infrastructure support, and other elements of EMS
- Unlimited number of data refreshes from the production instance

7. SQL Server Database Optimization and Performance Tuning

- Initial and ongoing review of database configuration, systems component allocation, etc.
- Evaluation of risk of performance bottlenecks and SQL inefficiencies
- Prescription of corrective and optimal settings

8. Security Advisory Services

- Initial and ongoing evaluation of environmental asset security capability according to CIA triad for system and data
- Initial and ongoing threat assessment evaluation
- Reporting of findings and recommendations to establish and/or improve security capabilities

9. SSL Certificate Administration

- Review of SSL / TLS use and capability
- Procurement and provisioning of 2048-bit RSA key TLS 1.x certificate
- Configuration of SSL / TLS certificate for each specific client's site
- Integration into client instance of BusinessPLUS and ongoing administration throughout three-year term

Service and Support Information

1. Environment Monitoring

TSG will provide 24/7/365 real-time monitoring of the BusinessPLUS environment. This feature of EMS provides monitoring of essential BusinessPLUS components including the server hardware, Microsoft Windows® environment, and BusinessPLUS applications to ensure all elements are operating in a fully optimized state. TSG specifically monitors the following components to minimize disruptions and maintain a high level of performance and productivity:

Server Hardware Monitoring
<ul style="list-style-type: none"> • Physical hard drive status and monitoring for faulty hardware • Hardware RAID controller status and monitoring for faulty hardware • Network Interface Card status and monitoring for faulty hardware • Power supply status and monitoring for faulty hardware • Physical RAM status and monitoring for faulty hardware
Microsoft Windows® Monitoring
<ul style="list-style-type: none"> • Microsoft Windows® Server Event Log errors for BusinessPLUS services • Microsoft Windows® disk storage • Microsoft Windows® Updates • CPU and memory utilization • Disk I/O utilization
BusinessPLUS Application Monitoring
<ul style="list-style-type: none"> • BusinessPLUS/PowerTeacher Network service status • ReportWorks Network service status • SQL Server Network service(s) status • BusinessPLUS application logs • SQL Server application logs • SQL Server backup status • BusinessPLUS website availability • Cognos availability
*Virtualization Host Monitoring (If Applicable)
<ul style="list-style-type: none"> • Network Interface Card status • Hardware status • Virtual Machine file storage status • CPU and memory utilization
*Hardware Load Balancer Monitoring (If Applicable)
<ul style="list-style-type: none"> • BusinessPLUS virtual service availability

***Note:** Monitoring is provided only if the component is chosen to be included with the EMS monitoring and capable of supporting EMS monitoring tools.

Each month, the Client will receive a report detailing the history, status, and trending of performance, hard drive consumption, server uptime, and the frequency of incidents and transactions TSG responded to and fulfilled.

2. Software Update Service

As part of EMS, the Client can take advantage of TSG's administration of the distribution of all elements of software fundamental to the operation of BusinessPLUS. This element of EMS provides remote services to install all subsequent BusinessPLUS version updates and upgrades, all BusinessPLUS-related SQL Server updates and upgrades, all state and

provincial reporting installers, all server operating system updates and upgrades, and all applicable third party software updates, and provides the Client with the assurance that their BusinessPLUS environment is up to date on the latest versions. The Client retains the full control and decision making authority to determine if and when their environment is updated with a new release. This service includes the perpetual administration of the following elements of the BusinessPLUS environment:

- Choice of automated or on demand deployment of BusinessPLUS version release updates
- Choice of automated or on demand deployment of BusinessPLUS state and provincial reporting updates
- Choice of automated or on demand deployment of BusinessPLUS-related SQL Server updates
- Choice of automated or on demand deployment of Microsoft Windows® operating system updates
- Choice of automated or on demand deployment of SIF agent updates and State Messaging Plugin updates (If Applicable)
- On demand deployment of Cognos updates.

3. Offsite Data Backup and Disaster Recovery

EMS provides the Client with the capture and encryption of an automated backup of their BusinessPLUS and SQL Server files, and securely transfers them to a remote storage location provided by TSG. This backup consists of and is provided via the SQL Server data pump utility, and is used to take a point-in-time snapshot of the database.

This capability provides the Client the ability to secure and then recover the files needed to quickly restore a BusinessPLUS instance following an irretrievable loss of data. Clients may contact TSG to facilitate the restoration process. This service includes the following features:

- Automated backup of BusinessPLUS and SQL Server files
- AES 256-bit double encryption of BusinessPLUS and SQL Server files before they are transferred
- Automated secure transfer of data to a secured remote SAS70-certified data center employing state-of-the-art security
- 365-day storage of encrypted Client data accessible only to TSG staff
- Monitoring of storage assets and technology and the notification to the designated BusinessPLUS administrators of any alerts regarding the status of nightly backups and the health of backup files
- In the case of a disaster, temporary hosting of the BusinessPLUS application for thirty (30) days on the TSG cloud platform
- Restoration of BusinessPLUS in the TSG temporary hosting environment within 24 hours

4. Data and Server Migrations and Restorations

EMS includes the facilitation of data transfers in order to meet a variety of needs and circumstances. These include planned expansions of, or migrations, to new physical or virtual hardware, the population of data to a secondary instance, or the periodic transfer of data from a production environment to a test, training, or other non-production instance. In the event of an emergency, EMS also provides for the complete restoration of an instance corrupted by hardware failure or user error via the use of a backup data file to be deployed in full rather than to recover specific elements of data. These restorations are completed on the same business day of notification within standard business hours unless otherwise negotiated.

5. Infrastructure Support

TSG will provide remote support for the following infrastructure configurations as they pertain to the operation of BusinessPLUS:

Server Hardware Configurations
<ul style="list-style-type: none"> • Hardware disk subsystem configurations • Server attached hardware peripheral configurations • Direct attached SCSI / SAS storage devices
Microsoft Windows® Configurations
<ul style="list-style-type: none"> • Windows Server system settings • Windows Server Event Log errors • Windows Server network settings • Windows Server services
Virtualization Configurations
<ul style="list-style-type: none"> • Virtual Machine configurations • Host resource configurations • Host management configurations
SSL Accelerator (Load Balancer) Configurations
<ul style="list-style-type: none"> • KEMP Technologies, F5 Networks BIG IP®, Cisco CSS configurations • Virtual service configurations • Configuration Management
SSL Configurations
<ul style="list-style-type: none"> • SSL / Application configurations • Certificate renewals

Note: All hardware replacement will be handled directly by the manufacturer. It is the Client's responsibility to contact the hardware manufacturer directly to rectify any faulty hardware.

6. Secondary/Non-Production Instance Coverage

EMS provides Installation and configuration of BusinessPLUS and SQL Server on secondary servers. This includes enrollment of secondary instances of BusinessPLUS into monitoring, version administration, infrastructure support, and other elements of EMS and an unlimited number of data refreshes from the production instance

7. SQL Server Database Optimization and Performance Tuning

At the onset of the first EMS term, and on an ongoing basis thereafter, a TSG SQL Server DBA will review and evaluate the condition of the Client's database to assess the opportunity and manner of improvements intended to optimize the condition and enhance the performance capabilities of the database.

8. Security Advisory Services

At the onset of the first EMS term, and on an ongoing basis thereafter, TSG security engineering staff will review and evaluate the capabilities of the pertinent security elements of the environment including network architecture, firewall, asset and asset credentials, operating system and anti-virus software patches, BusinessPLUS Security functionality, data, and ancillary software and tools. This aspect of EMS will assess the nature, likelihood, and severity of risk(s) borne from the condition of these security elements, document findings, formulate recommendations, capture the outcome in an easy-to-understand report with actionable prescriptions, and discuss with designated Client staff.

9. SSL Certificate Administration

At the onset of the first EMS term, TSG staff will review SSL / TLS use and capability, procure and provision a Certificate Authority (CA) issued TLS 1.x certificate that utilizes a 2048-bit RSA key with SHA-256 signature, and configure a SSL / TLS certificate for each specific client's site. TSG staff will also facilitate the integration into client instance of BusinessPLUS and ongoing administration throughout three-year term.

Terms and Conditions

It will be the responsibility of the Client to ensure each of the following items are understood and addressed by their staff.

General

1. All services within the EMS offering are to be delivered remotely unless otherwise specified. Onsite support services are available at an additional cost.
2. Client will provide TSG with a designated representative to assist with activities that would require physical interaction with supported components.
3. TSG is not affiliated with the BusinessPLUS Technical Support department and is unable to address any questions relating to the use or troubleshooting of functionality within the application as a result of a BusinessPLUS configuration or update performed by TSG. Clients with questions of this nature will be instructed to contact the BusinessPLUS Technical Support department. If TSG's monitoring indicates a potential issue outside the scope of EMS, TSG will open a support request on the Client's behalf with BusinessPLUS Technical Support.

4. The Client will be responsible to ensure adequate Information Technology administrative staff is available to provide support for normal day-to-day operations of the infrastructure that is not included within EMS coverage including the monitoring of network performance, server infrastructure, infrastructure integrity, and system data protection and recovery.
5. Services identified in the scope of EMS are intended to support enterprise-level servers hosting the BusinessPLUS application and its environment components, and do not include support of client-based assets or software.
6. No refunds or credits will be issued in the event the Client opts not to utilize any of the allotted services within this agreement, nor shall a refund or credit be issued in the event the EMS agreement is no longer necessary during the term purchased.
7. The EMS agreement will automatically be renewed at the end of each term unless TSG is notified in writing in advance of the contract expiration date.
8. The Client is responsible to review the fully disclosed Enterprise Management Service (EMS) Statement of Work (SOW) and agree to the terms and conditions by signing this proposal. Failing to sign and return the proposal directly to TSG will delay the initiation or renewal of EMS, and may result in the de-commissioning of the service including the removal of monitoring and data backup assets.
9. The initial term of EMS is ONE calendar year from the date of purchase as negotiated.
10. The EMS may be subject to an annual uplift consistent with standard company rates at the time of renewal.

Contacting TSG for EMS Needs

TSG has established a process for Clients to use in order to ensure an immediate response to EMS requests. The three primary methods for requesting service or support are as follows:

1. Email

To receive support or request services by email, Clients should send their request to TSG at myEMS@powerschool.com. The BusinessPLUS Customer Number should be included in the Subject Line for fastest processing.

2. Telephone

For service via telephone, Clients should call 1.866.434.6276 or 1.916.288.1881, and select Option 6 for “Enterprise Management Service Clients.” The BusinessPLUS Customer Number should be ready to be provided to TSG.

Once TSG is contacted using any of the aforementioned methods, the Client will be provided with a Case Number and a TSG Systems Engineer, Security Engineer, or Database Administrator will be assigned to assist the Client with their request. The Systems Engineer will have access to all pertinent documentation about the environment’s configuration and a log of previous support issues and requests. However, Client staff should be prepared to provide or verify system credentials or other elements of information in the event it has recently changed.

Hours of Operation

- Infrastructure support and other elements of the EMS agreement are available twenty-four hours a day Monday through Thursday, Fridays from Midnight to 9:00 PM, Saturdays from 4:00 AM to 6:00 PM, and Sundays from 4:00 AM to 6:00 PM and 9:00 PM to Midnight Pacific Time (excluding holidays observed in both the US and Canada on the same day and unless otherwise specified and negotiated).
- TSG will respond to all inquiries, needs, escalations, or solicitations from the Client within no later than one (1) hour of receipt during the hours and under the terms indicated above.

Note: Pre-scheduled off-hour or holiday support may be available at an additional cost or by negotiation.

BusinessPLUS Servers

1. The enrollment of BusinessPLUS and SQL is limited to the following eSchoolPLUS server(s) unless otherwise stated:

- **(1) BusinessPLUS SQL Server(s)**
- **(1) BusinessPLUS Application Server(s)**
- **(2) BusinessPLUS Employee Online Server(s)**
- **(1) BusinessPLUS RM Server(s)**

Note: Additional BusinessPLUS servers not listed above will require additional funding to be upgraded.

Note: Configuration of Microsoft SQL Server Always On for high availability will require additional funding to be implemented by TSG.

Pricing Summary – As of August 6, 2018

- **Enterprise Management Service Year 1 Discounted Fee: \$27,200.00**
(12 Month Term)

***Note:** Must be purchased by September 30, 2018 for promotional discount to apply

By signing this proposal, the Client agrees that they have reviewed the fully disclosed Enterprise Management Service (EMS) Statement of Work for BusinessPLUS, available upon request, and acknowledge and agree to the terms and conditions set forth

The pricing set forth above shall be valid for a period of sixty (60) days from the date of this proposal and is only applicable to those products and services described herein. If customer has not returned a signed copy of this Proposal to BusinessPLUS prior to the expiration of the foregoing sixty (60) day period, BusinessPLUS reserves the right to modify the products, services and associated pricing quoted herein, or in the alternative, cancel this Proposal in whole or in part.

All products and services set forth in this Proposal will be provided to Client in accordance with the terms and conditions of the standard BusinessPLUS Licensed Product and Services Agreement.

AGREED TO: Lawrence Unified School District 497			
By:			
(Authorized Signature)			
Name:			
Title:			
Date:		Phone Number:	

To purchase this offering, please sign the last page of this proposal and submit back to PowerSchool Group, LLC along with a purchase order via fax to (916) 288-1590. Thank you and we look forward to working with you and your staff.

PowerSchool Group, LLC
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