Whitepaper for the SchoolReach Data Integrator Software

ABSTRACT: The Data Integrator is a package of simple software tools that enable you to more efficiently update names, phone numbers, and other information in the call lists hosted within your account on SchoolReach's website to synchronize with changes you have entered in your student information system (SIS) or other database. It may be used as a stand-alone tool to update multiple lists using data from batches of reports regularly exported from your SIS, or as part of a completely automated workflow if your SIS deployment meets certain criteria.

PURPOSE: Schools are challenged more than ever to keep up with parents' contact numbers in the face of mobile phone proliferation, new phone services, shifting community demographics, and changes in the workplace. This can sadly be compounded by the myriad and varied tools in use within a modern scholastic office. The Data Integrator was developed to minimize or eliminate the effort required you to keep your various SchoolReach call lists up to date with the changes and additions you make to records your SIS. For districts with separate SchoolReach profiles for each campus or school office, it can also be an invaluable tool for centrally managing and distributing data exported from your SIS across each school's respective profile.

OVERVIEW: The package consists of two components. The first is a configuration tool that allows you to define correspondences between comma-delimited text files exported from your SIS and specific calling lists on your SchoolReach profile. Configuration needs to be performed once at installation, and occasionally thereafter if you add new file/list pairings to your update batch.

The second piece is the actual batch-upload application. When it runs, it reads data from the files you specified and rapidly loads data to the appropriate lists. This eliminates the repetitive task of logging on to the web site and loading each list (primary numbers, daytime numbers, faculty/staff, etc…) one at a time whenever you update your information.

Thus, all that is necessary to keep your lists up to date is to regularly export a batch of files from your SIS, and thereafter run the Data Integrator. The Data Integrator may even be set to run as a recurring task, loading the most recently exported files each day. Should your SIS allow you to schedule recurring exports of your output files as well, the entire process may then become completely automated. If your only access to your database is via a web connection to a vendor or state administered system, you will likely need to log in for the export unless special arrangements can be made with the SIS vendor. In either case, the savings in time and effort are more than significant.

SECURE COMMUNICATION: When the Data Integrator runs, it reads in your files one at a time and constructs a SOAP (Simple Object Access Protocol) message to send to our web service. Before the message is sent it will be encrypted using 128bit SSL encryption. Should this message be altered en route the service will see it as invalid thus protecting your students' information from manipulation via the "Man In the Middle" attacks. Even though this is not a typical web request from a browser, it functions like a secure HTTP Post and travels on TCP/IP port 443. If your firewall is set to block this port it will need to be opened or you will need to add Data Integrator and its configuration tool to the exception list, the configuration tool uses similar requests to validate the login information and list numbers.

SYSTEM REQUIREMENTS:
    Microsoft Windows 2000, XP, or Vista
    Microsoft .NET Framework 1.1 (with all patches) or later version.
        (Version 3.5 recommended, all versions are a free download from Microsoft)

While there is no native Macintosh version in development at this time, many of our Apple-using clients have successfully implemented this solution using commercially available virtualization tools to run the Windows software on a Macintosh with an Intel CPU.

FURTHER INFORMATION: Formal specifications, sample files, and example SQL queries are available upon request, and complete documentation is included with the software. We also host online training sessions on a weekly basis to help with setup and configuration for both new and existing customers.