



Service: Data Analysis
Service Level Agreement (SLA)

School District:

School Year:2018-19

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1.0 Base Service

The LHRIC will provide;

- Data Analysis Reports for administrators and teachers,
- A web-based secure (SSL encrypted) reporting environment that allows running, downloading of data and presentation in various formats (text, charts, graphs, cubes),
- Tools for modifying or creating reports from the Level 1 data warehouse.

The base service fee includes;

- Back up and maintenance of all data and reports,
- Unlimited storage for data and reports,
- On-line user security maintenance application
- Professional development (See section 1.6 below).

PLEASE SEE ATTACHED APPENDIX A: Deliverables

Value

- A single location that allows educators to see trends, analyzes individual student performance and provides data for curriculum improvement.

Purpose

- To improve administrator, teacher and student performance by providing data in a format that facilitates educational planning.

Specific details are as follows;

1.1 Service Availability

- Support staff is available from 8:00 am to 4:00 pm Monday through Friday during the school year, and from 8:00 am to 3:30 pm during the summer.
- LHRIC support staff adheres to the normal inclement weather delays and closings announced on WFAS radio and News Channel 12 listed as the Southern Westchester BOCES.

1.2 Application Management

- LHRIC provides authorized access to the Level 1 web servers on a 24/7 basis with the exception of planned downtime for software updates, maintenance and repair or unanticipated outages.
- LHRIC will conduct routine back up of all data and reports, including user created reports.
- LHRIC will load all data that is prepared in Level 0 for export to Level 1 within 24 hours of placement on the Level 0 server and will send an email to confirm the loading is successful.

- LHRIC publish new reports for Data Analysis users within 3 – 5 days of loading the data into the production database.
- LHRIC will update existing reports within 1-2 days of loading the data into the production database.
- LHRIC ensures that all reports will load within 20 seconds for viewing by the user.
- LHRIC skilled staff will provide professional development and technical support (see Section 1.6 below).
- Maximum users per district are as follows:
 - District Users - 40
 - Building Users -10
- LHRIC will ensure that the response time for creating PDFs from reports will be {30 seconds} or less from clicking on the “View in PDF Format” link until it is displayed in the browser window.
- Additional reports and/or database queries provided by LHRIC may be charged to the district based on the hourly work.
- The district will provide a point of contact for administration and communication with LHRIC (usually CIO).
- The district will provide 60 days advance written notice of cancellation of service.

1.3 Hardware Management

- LHRIC maintains the web servers, content and database servers and the backup routines.

1.4 On Site Staffing - N/A

1.5 Insurance - N/A

1.6 Professional Development

- Three ½ days per school year are included, providing training on navigation, report creation and advanced report creation and instructional planning using assessment data.
- Additional consulting may be purchased in 5 hour blocks for district or building data team training or consultation.
- Two User Groups and three Report Committee meetings will be hosted by LHRIC per year.

1.7 Conditions/Exclusions – N/A

1.8 Value Added includes

- Report Sharing by users through User Group and Wiki,
- Reporting tools and training throughout the year,
- NYSED and RIC report sharing through the consortium,
- Online documentation including trend and item maps and screen animations.
- Best Practices in the use of data with sharing of material, web sites and videos.

1.9 Additional Services

- Districts may elect to add more data such as local assessments and/or course grades (additional fee).
- Districts may elect to create their own reports or contract with LHRIC to create custom reports as special requests (additional fee).

2.0 Network Operations Center (NOC)

Overview

2.1 Connectivity

For districts participating in LHRIC Internet Service Provider (ISP) Service/WAN:

- The LHRIC will maintain connections to the Level 1 Data Warehouse reporting application for the purpose of application support and disaster recovery.
- LHRIC Wide Area Network staffing hours of operation are between 7 am – 5 pm weekdays, and follows the BOCES calendar for closing.
- Network Operations staff adhere to the normal inclement weather delays and closings announced on WFAS radio and News Channel 12 listed as the Southern Westchester BOCES.
- LHRIC Wide Area Network remotely monitors the core infrastructure and connectivity to the Internet 24 x 7.
 - The “core infrastructure” includes all network routers, switches, firewall, bandwidth shapers, VPN appliances, and authentication servers related to providing Internet access and applications resources. These resources are located at 44 Executive and 85 Executive Blvd, Elmsford, NY.
 - The LHRIC Wide Area Network remotely monitors all connectivity. CORE infrastructure (located at the LHRIC) is monitored 24/7. District connectivity and infrastructure are monitored during network office staffing hours.
- The LHRIC disaster recovery plan maintains two separate Internet connections with redundant core equipment in two locations.
- To request special access to the service by non district staff or equipment located off site, contact the LHRIC service coordinator in advance to determine feasibility and any associated cost that may be incurred

For districts using an Internet provider other than the LHRIC:

:

- The LHRIC will provide a “best effort” approach to working with identified staff and/or providers in the delivery of the service.
- LHRIC support begins when connectivity to our network is established.
- The LHRIC will grant access to streaming and downloading of content via the web server from outside the WAN.
- The district is responsible for connectivity to streaming servers via the Internet Service Provider from the district physical plant.

2.2 Application Hosting

- The Level 1 Data Analysis service is hosted on servers at the LHRIC with SSL data encryption. Servers support Windows, Mac and Linux web browsers. Certain reports may not appear correctly formatted in browsers on Mac OS and Windows.
- Certain servers operate in a VM environment, which will allow for hardware fault tolerance.

2.3 Data Storage

- All data will be maintained on Oracle Database servers located at LHRIC.
- The district and server data are maintained on the LHRIC’s storage area network (SAN).
- A nightly backup of district data is performed Monday through Friday. The backup will be stored at our 50 Executive Blvd. location. An additional copy is moved offsite Monday through Friday to Iron Mountain..

2.4 Power

- All the servers running at the Regional Information Center are protected by UPS units for short-term power issues. For long-term power issues, the facility is equipped with a generator. The LHRIC will test the generator weekly and maintains annual contracts for maintenance and fuel delivery.

2.5 Back Up, Disaster Recovery and Business Continuity

2.5.1 Backup and Disaster Recovery

- The LHRIC will provide backups of the server needed to run the application and the district’s data. The LHRIC will also be responsible for restoration of a failed server and should it be necessary to maintain the district’s data.
- Incremental backups are taken nightly Monday through Friday. A full server backup is taken on the weekends.
- Each weekday a second set of backup tapes is made and sent to an Iron Mountain facility in New Jersey.
- Database and servers are restored to test the recovery procedures annually. This is done to maintain the skills of the technical staff and to ensure that the application and data can be recovered in the quickest way possible.

- Applications upgrades are only performed after a full backup has been executed. This precautionary measure is taken to ensure database integrity and to maintain a “roll-back” option if needed.

2.5.2 Business Continuity

- The LHRIC maintains a secondary location at 85 Executive Blvd. This site is setup to support Internet connectivity, Internet and SPAM filtering and remote access.
- Additionally, a secondary location is maintained at Rockland BOCES. This site is setup with storage and a VMware environment to support application servers. Each night the servers and data are replicated to this site.

2.5.3 Firewall Services

- As part of the providing Internet access to LHRIC WAN members, the LHRIC maintains a centralized firewall for controlling access to the Internet that is monitored and maintained as part of the core equipment
- Firewall logs are saved via syslog server. Firewall logs are stored for 6 months.
- For wall logs will be provided to DOT per specific request
- All district Internet bound traffic is permitted by default. All returning traffic responding to district requests is permitted. All Internet traffic initiated by Internet resources is denied unless there are specific permissions (specific firewall rules) granting access.
- The LHRIC Wide Area Network staff will make specific firewall changes granting access to district resources based on DIT written request.
- Current firewall access provided to DOT per specific request

2.5.4 VPN Client Remote Access

- The LHRIC Wide Area department provides remote access to district resources per service offering
- VPN equipment is monitored as part of the network core
- VPN appliances and supporting services are replicated between 44 Executive Blvd. And 85 Executive Blvd.
- VPN accounts are provided per district cost approval. VPN accounts are based un users ID
- VPN accounts use a password policy for complexity which includes periodic password changes.
- VPN account activity logged via syslog server and saved for 6 months. Account activity includes passed authentication, failed authentication and duration.
- VPN activity reports will be provided to DOT per specific request

2.6 On Call Support

- The NOC support team has two on call persons each week – one for network related issues and one for server and applications related issues. These individuals are a point of contact for LHRIC staff members. They are responsible for monitoring the WAN, NOC and applications running in the NOC. They will work to repair minor issue and contact other LHRIC staff members when an issue needs to be escalated.
- The on call week begins on Fridays at 3:00pm and lasts until the next Friday. Issues will be responded to within four hour during the hours of 5:00pm and midnight.

3.0 Problem Management/Resolution

Overview

The LHRIC is committed to the speedy resolution to all problems related to this service.

3.1 Definition

- Problems or requests for instructions on how to use the application should be reported to the Data Analysis Department. The following are methods to report an issue.
 - Call the LHRIC at 914-592-4203 and ask for the Data Analysis Team.
 - Log call at the LHRIC Web site: <https://lhric.service-now.com/> Under type of request choose Student.
- Problems with accessing the Level 1 Data Warehouse should be reported directly to the Help Desk at the web site above or call **1 800 897-0733**

3.2 Escalation

- If a problem has been logged and you feel that it needs to be escalated, just say “please escalate this call.” It will be escalated to one of our senior staff who will work with the assigned staff to come to a resolution.
- If you feel that you need additional escalation please contact the Data Warehouse Project Manager, or your Regional Coordinator.

3.3 Resolution

- Problems will be considered resolved when the client indicates the problem is fixed, or if it requires a modification to the system. It will be logged as a bug, or it may be moved to the system enhancement category for the product developers.

4.0 Performance Tracking and Reporting

Overview

The LHRIC's goal is to provide a service that participating districts value. To that end the LHRIC will evaluate feedback, modify or enhance the services provided and include as much service as possible without increasing costs. It is our goal that the feedback provided helps to shape the service.

4.1 Metrics

- Annual survey will be issued to receive feedback.
- Workshop surveys will be completed following activities.

4.2 Reporting

- Results of surveys are published in the LHRIC annual report.

4.3 District/LHRIC Review

- The LHRIC will meet with districts as needed to when survey results indicate lower than a 3 of 5 in any area.

5.0 Policies and Guidelines

Overview

The LHRIC assumes the highest level of integrity while performing tasks as outlined in this agreement. [Data Privacy Notice](#)

5.1 Statement of Confidentiality

- The LHRIC will not discuss or distribute district confidential data without the express permission of a District Administrator except to the extent required by law pursuant to a lawfully issued legal process such as a subpoena or court order.

5.2 Statement of Acceptable Use

- The LHRIC will provide access to a user management system for districts to add or delete users or change their passwords. It is the responsibility of the district to maintain and update their list of internal users. The LHRIC maintains the district CIO list. All CIOs must be authorized by the Superintendent.
- The LHRIC has a documented procedure as to the circumstances and authorizations needed for the LHRIC to make any change to district data.
- LHRIC will use email notification to inform districts of system updates and changes that may result in down times. We will include information as to

whether or not district can remain on during the update, or if they need to be logged off. If district staff needs to be off the system, the LHRIC will define a window for the update.

6.0 Signatures/Authorization

The following authorized representatives of each party execute this Agreement at the Commencement Date of:

Terms of Agreement: July 1st, 2018 through June 30th, 2019

Authorization for the LHRIC Student Services Department

Name :

Signature :

Position :

Date of Signing

Authorization for the School District

Name :

Signature :

Position :

Date of Signing

Appendix A
Deliverables for Data Analysis Clients

Deliverables are regularly reviewed by a Data Analysis Report Committee and this list is subject to Modification based on the committee's recommendations.

| ELA and Math Grades 3-8 | Description | Advanced Features |
|--|--|---|
| 1. Group/Sub-group (Demographic) Analysis | Performance and Item analysis by student groups | Data Mentor Link/Drill Down to students |
| 2. Building Benchmark (Curriculum) Analysis | Building Item success rate benchmarked with Region | Data Mentor Link/Drill Down to students |
| 3. Student Benchmark (Strength and Weakness) Analysis | Student analysis of SPI benchmarked with District and Region | Full report on every student. |
| 4. Error/Distracter (Assessment) Analysis | Analysis of how students answered each question | Data Mentor Link/Multiple sorts |
| 5. Change Over Time (Trend) Analysis | Trends and gap analysis | Performance and Item Analysis cubes |
| 6. Data Download | Performance Level, Scale Score, items | |
| | | |
| Science and Social Studies Grades 4 and 8 | | |
| 1. Group/Sub-group (Demographic) Analysis | Performance and Item analysis by student groups | Data Mentor Link/Drill Down to students |
| 2. Building Benchmark (Curriculum) Analysis | Building Item success rate benchmarked with Region | Data Mentor Link/Drill Down to students |
| 4. Error/Distracter (Assessment) Analysis | Analysis of how students answered each question | Data Mentor Link/Multiple sorts |
| 6. Data Download | Performance Level, Scale Score, items | |
| | | |
| NYSESLAT | | |
| 1. Individual Session Scores | Includes LEP duration | |
| 2. Performance Status of Current and Past LEP Students | Combined NYSESLAT/ELA | Scores w/LEP Duration & multiple years |
| 3. Z-Score Report (Sub-Score Analysis) | Is student above or below regional mean in Listening, Speaking, etc. | Pull-down selects test level for a single year's administration |
| 4. Data Download | Performance Level, Scale Score | |
| | | |
| REGENTS | | |
| 1. Group/Sub-group (Demographic) Analysis | Multiple Choice questions by student groups | Data Mentor Link/Drill Down to students |

| | | |
|--|--|---|
| 2. Building Benchmark (Curriculum) Analysis | Building Item success rate benchmarked with Region | Data Mentor Link/Drill Down to students |
| NYSAA | | |
| 6. Data Download | Performance Level, Scale Score | |
| MULTI-SUBJECT | | |
| 1. Student Profile | Course Grades/Assessment Profile (all years) | |
| Tools | | |
| <ul style="list-style-type: none"> Data Tools - Report Studio | Creation and modification of Reports | |
| <ul style="list-style-type: none"> Data Tools - Query Studio | Creation and modification of Reports | |
| <ul style="list-style-type: none"> Performance and Item Analysis Cubes | | |
| Trainings and User Groups | | |
| <ul style="list-style-type: none"> Two half days of Training on Reports, two half days of Training on Data Tools per district | | |
| <ul style="list-style-type: none"> Data Analysis User Groups | | |
| <ul style="list-style-type: none"> Data Analysis Report Committee | | |