OPLIN
OHIO PUBLIC LIBRARY INFORMATION NETWORK

Annual Report
Fiscal Year 2015
July 1, 2014 – June 30, 2015

OPLIN Overview in FY 2015

- ➡ Majority of the OPLIN network currently consists of 255 Ethernet circuits (99%).
- ➡ New vendor contracts with better pricing allowed for continued upgrades.
- ➡ OPLIN officially launched a completely revised version of the Ohio Web Library.
- ➡ Ohio Web Library collection remained relatively unchanged from last year.
- ➡ DDoS solution implemented to protect OPLIN network participants from attacks.
- ➡ OPLIN no longer provides email service for libraries due to mail server failure.
- ➡ Forwarder server built to forward incoming OPLIN mail to new email accounts.

The **Ohio Public Library Information Network (OPLIN)** provides broadband Internet connections and related information services to Ohio public libraries. Our primary mission is to ensure that all Ohio residents have fast, free public Internet access throughout the 251 independent local public library systems in Ohio, as well as the use of high-quality statewide research databases.

OPLIN is defined in the Ohio Revised Code section 3375.64 as "an independent agency within the State Library of Ohio, for the purpose of ensuring equity of access to electronic information for all residents of this state." Planning for OPLIN started at the beginning of 1994 under the leadership of the Ohio Library Council (OLC), and it was established in the State Library budget in fiscal year 1996.

As a state government agency, OPLIN receives extensive fiscal support services from the State Library of Ohio and network management assistance from the Ohio Office of Information Technology (OIT). The majority of the OPLIN budget is used to purchase the services provided directly to Ohio public libraries, primarily Internet telecommunications at approximately $2.6 million annually, and subscriptions to basic information resources at typically $1.5 million. As a result, public libraries do not need to pay for these services from their limited individual budgets because OPLIN provides them.

OPLIN is governed by Director Stephen Hedges, and a Board of Trustees composed of eleven members selected from the staff and past or present board members of Ohio public libraries, who serve for a term of three years. Since OPLIN seeks a variety of representatives from public libraries, board members are chosen based on location, library size, and skill.

OPLIN Board Members

Jill Billman-Royer (*Chair*), Southwest Public Libraries Trustee
Rebecca Schultz (*Vice-Chair*), Portsmouth Public Library
Don W. Barlow (*Secretary*), Westerville Public Library
Benjamin Chinni (*Treasurer*), Euclid Public Library Trustee

Marty Beets, Public Library of Cincinnati and Hamilton County
Susan Brown, former Washington-Centerville PL Trustee
Karen Davis, Sylvester Memorial Wellston Public Library
Joe Greenward, Lane Libraries
Cindy Lombardo, Cleveland Public Library
Jamie Mason, Rocky River Public Library
Michael Penrod, Wood County District Public Library

OPLIN Staff Members

Director	Stephen Hedges
Technology Project Manager	Karl Jendretzky
Library Services Manager	Laura Solomon
Customer Relations/Support	Amie McReynolds
Network Support	Vincent Riley

OPLIN Services and Resources

OPLIN originally provided two major, important services for libraries: Internet connectivity and databases. Over the years, OPLIN has grown beyond its initial mission to provide a host of other valuable services that public libraries would otherwise be unable to afford themselves. We provide these services and resources in a streamlined and efficient manner without incurring unreasonable or extra charges as well as by using free or open source solutions when available and low-cost alternatives when not.

While the eventual consumers of our services are often members of the general public, our actual customers are in fact limited to the public library systems of Ohio. The goal of Ohio public libraries is to provide free and open access to all types of information resources and technology for the residents of this state, and the services that OPLIN is able to offer libraries are crucial both to the public and staff, especially in this climate of

declining state budget funding and increased necessity for access to library resources and current technology.

- Internet connectivity
- Online databases
- Support Center assistance
- Email forwarding
- SMS text messaging
- OpenDNS filtering service
- Dynamic Website Kits
- State DNS services
- E-Rate workshops
- ExploreOhio website
- OPLIN mailing lists
- Technology blogs

Every year, OPLIN strives to implement changes and updates to make our services more cost-effective, efficient, and useful. We often use in-house options and Linux-based software solutions when possible because they offer numerous advantages, including cross-platform compatibility with multiple operating systems.

Support Center Assistance

The **OPLIN Support Center** provides assistance to public libraries for a wide variety of technical questions and issues in addition to maintenance services and monitoring of networks and databases. In this fiscal year, Support Center personnel opened 1,002 tickets (compared to 1,253 last year) for 251 library systems in a total of ten categories.

The total number of tickets has dropped from previous years, mostly because we no longer provide email service as of March 2015, no longer open tickets for copyright infringements, which was the largest category in past years, and do not perform circuit upgrades as frequently since most libraries have already received a major upgrade due to contract changes and decreased costs.

As usual, the majority of support tickets were related to email (39%), connectivity issues (16%), and DNS requests (12%), which increased due to libraries switching their email hosting.

Telecommunications Service Request (TSR) is the category involving circuit installs, upgrades, and disconnects. A new "TSR" ordering system was implemented last fiscal year to help improve efficiency and cross-platform compatibility.

Administration
Complaint
Connectivity
Database
DNS
Email
Law Enforcement
Router
TSR
Website
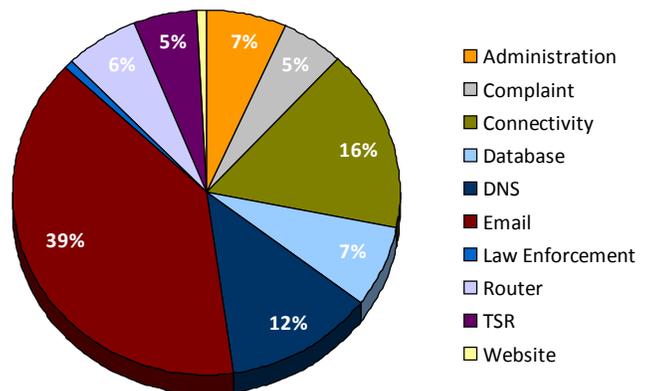
Internet Connectivity

OPLIN provides an Internet connection for each Ohio public library system in addition to connections for the State Library of Ohio and the four regional library systems for 256 total circuits. We have existing state contracts with Time Warner Cable (TWC), AT&T, ComNet/IFN, Horizon Telcom, Agile Networks, and Frontier Communications to supply fiber and copper Internet connections. Agile Networks is a local wireless provider used to replace T1 lines in rural areas that we are unable to reach with regular Ethernet.

Due to new TWC and AT&T contracts with better pricing, we have filed upgrade orders for a major portion of the OPLIN network. In most cases, we can now buy 100 Mbps for less than we paid for 10 Mbps circuits, although we still have to go through all the necessary steps for E-Rate contract changes before upgrading. Bandwidth for new upgrades is generally determined as follows: Libraries with less than a 10 Mbps circuit will be upgraded to 20 Mbps, and libraries with a 10 Mbps or higher circuit will be upgraded to 100 Mbps *if advantageous pricing is available at the library location.*

However, our policy for determining library circuit upgrade eligibility remains the same – the circuit must maintain an average of 70% bandwidth utilization during peak afternoon hours over a specified time period. The majority of the OPLIN network (99%) is Ethernet with *only one T1 circuit remaining.* Over the past fiscal year, the total network bandwidth usage has increased by 22% from 3.6 Gbps to 4.4 Gbps. The steady increase prompted the need to upgrade to 10 Gbps core router hardware to handle additional bandwidth in FY 2013.

As for public wireless access, libraries manage their own setup and costs if they choose to provide Wi-Fi for their patrons, and basically all library systems and buildings offer free wireless to their user communities at this point. The number of computers available for public use has increased to 12,933 with a total of approximately 25,817 computers in Ohio public libraries. Typically, these numbers have continued to increase as the use of technology and Internet access became a necessary focus of public libraries; however, budgetary cuts and use of patron-owned devices have caused decreases in prior years.

Total number of Internet connections:

July 1, 2011
84 Ethernet circuits, 2 DS3, 170 T1 lines

July 1, 2012
234 Ethernet circuits, 2 DS3, 20 T1 lines

July 1, 2013
247 Ethernet circuits, 2 DS3, 7 T1 lines

July 1, 2014
250 Ethernet circuits, 1 DS3, 5 T1 lines

July 1, 2015
255 Ethernet circuits, 1 T1 line

Number of Public Computers
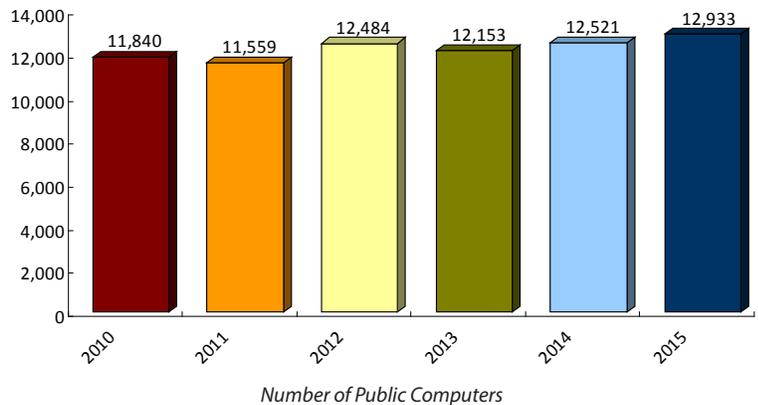
OPLIN paid $2.66 million, or $222,000 per month, for public library telecommunications.

Ohio Web Library Resources

The Ohio Web Library is a collection of over 80 online databases provided by Libraries Connect Ohio (LCO), which includes INFOhio, OhioLINK, OPLIN, and the State Library of Ohio.* The LCO committee cooperatively purchases statewide access at a cost-effective rate whereas most individual libraries would be unable to afford them. Within the licensed databases are full text journals, magazines, newspapers, and tutorials, available for free to all Ohio residents either through public library websites or directly from the website maintained by OPLIN, located at *http://www.ohioweblibrary.org*.

Since February 2015, OPLIN has gathered feedback on changes to the Ohio Web Library search page from the OPLIN Content Advisory Committee and OLC Chapter Conferences. All of this feedback has convinced us to revise the way databases are presented. The new Ohio Web Library was officially launched on July 6, but we had worked on developing the new interface since last spring.

The actual Ohio Web Library collection has basically stayed the same since last fiscal year, with the only exception being that LearningExpress Library discontinued the old 2.0 platform and incorporated Job and Career Accelerator into the 3.0 platform. The current five-year vendor contracts expire in June 2018.

Usage statistics have remained fairly consistent with the trend seen in previous years, but numbers have decreased again this year due to corrections made in the reporting of statistics.

In FY 2015, a total of 6,316,786 searches were performed, and 3,156,996 documents were retrieved.

- FY 2014 Searches
- FY 2015 Searches
- FY 2014 Documents
- FY 2015 Documents
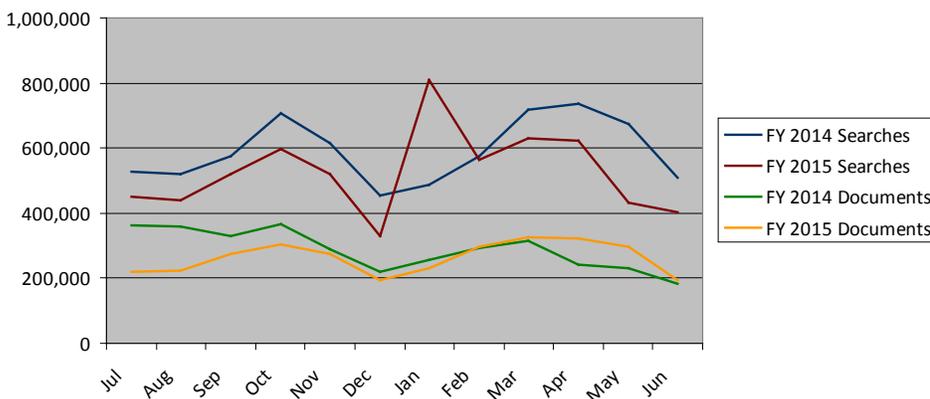
OPLIN paid $1.52 million for statewide databases.

Ohio Web Library Statewide Databases

- American and English Literature
- Ancestry Library Edition
- Biography Reference Bank
- EBSCO Academic Search
- EBSCO Business Source
- EBSCO Consumer Health Complete
- EBSCO Kids Search
- EBSCO Literary Reference Center
- EBSCO Newspaper Source
- EBSCO Points of View Reference Center

- EBSCO Science Reference Center
- EBSCO Student Research Center
- Facts on File Science Online
- Job and Career Accelerator
- LearningExpress Library
- Sanborn Fire Insurance Maps
- Workforce Skills for 21st Century Success
- World Book Online
- World Book Early World of Learning
- World Book Kids

Email and SMS Services

The big news this year was the unfortunate failure of the OPLIN mail server – Zimbra Open Source Edition (OSE) – to which we had migrated in June 2011. On March 6, 2015, the mail server suffered an unrecoverable failure due to an incompatible upgrade process between the operating system and mail application. On March 9, it was determined that restoration was not possible after multiple attempts to restore email from backups.

As a result of the mail catastrophe, Director Stephen Hedges made the decision to terminate future OPLIN email service because it made sense for libraries to explore other options. It was deemed more beneficial for libraries to secure their own email service since the overall goal was to quickly arrange for reliable email, and basically, libraries could set up new staff email accounts more efficiently than we could.

To assist in the transition, we provided simple tools to forward incoming mail to new accounts and to retrieve old OPLIN email saved from before March 6. On March 9, we built a "permanent" forwarder server to forward all incoming OPLIN mail to a new email address if a library requested that we do so. The Executive Committee of the OPLIN Board decided to keep the email forwarding service available for the foreseeable future.

Fortunately, the demise of the Zimbra mail server (*http://mail.oplin.org*) did not affect any other OPLIN services, such as SMS notifications or hosted mailing lists. We still provide a reliable and secure Linux listserv server (*http://lists.oplin.org*) for public libraries to use for bulk ILS patron notices and distribution lists as well as for hosting OPLIN and library-related listservs.

In FY 2012, SMS text messaging service became widely available for public libraries to use in conjunction with their ILS servers for sending patron notices. We switched to a more dependable provider, Trumpia, in April 2012, and library usage of SMS has steadily increased every year. We fully expect to send out over one million text messages over the next fiscal year.

OPLIN provides forwarding for approximately 1,300 accounts.

SMS Text Messaging Statistics

- 96 total library systems actively used SMS
- 35% increase in sent texts from last year
- Total number of messages sent: 638,080

Dynamic Website Kits

Since April 2008, OPLIN has offered Dynamic Website Kits to Ohio public libraries, a service that provides professional, updated websites with advanced features and options at an affordable price. The cost includes the initial setup, maintenance/upgrades, hosting, and free staff training at the OPLIN office.

Website Kits are built with Drupal, a popular content management system (CMS), for ease of use, ability to update content, and custom appearance. These websites are standards-compliant, which provides increased accessibility and usability, and utilize responsive web design (RWD) so that a separate mobile ver-

New Dynamic Website Kits

- Auglaize County District Public Library
- Barberton Public Library
- Garnet A. Wilson Public Library of Pike County
- Highland County District Library
- Mechanicsburg Public Library
- Wellsville Carnegie Public Library

sion is not required for viewability on cell phones and tablets. The number of new Website Kits decreased because most of the past year was consumed with migrating Drupal 6 sites to Drupal 7.

The total number of Ohio public libraries using the Website Kit service is 75 with 6 completed in FY 2015.

Internet Filtering and E-Rate Program

Internet filtering is provided to Ohio public libraries to satisfy a legislative requirement that OPLIN offers to assist local libraries use filters, which will help them in becoming CIPA-compliant (Children's Internet Protection Act) or maintaining CIPA compliance. CIPA compliance is a requirement for participating in the federal E-Rate program.

The State of Ohio budget bill for the last four years has stipulated that OPLIN "…shall research and assist or advise local libraries with regard to emerging technologies and methods that may be effective means to control access to obscene and illegal materials." Starting in July 2012 (FY 2013), OPLIN fulfilled this requirement through a statewide contract with OpenDNS to provide a web-based Internet content filtering system available to all Ohio public libraries at no charge.

Libraries can set up a free OpenDNS account through OPLIN and associate their IP address range with the account to control the types of content that patrons can see, similar to a traditional content filter that the library might otherwise buy. As of June 2015, 108 libraries or library organizations had registered for OpenDNS accounts through OPLIN.

The federal E-Rate program, administered by the Universal Service Administrative Company (USAC), provides discounted rates to assist schools and libraries in obtaining affordable telecommunications and Internet access. All public libraries are eligible to receive E-Rate refunds by completing some required

Internet Filtering

108 library organizations currently use OpenDNS, and 18 of those registered in FY 2015.

OPLIN paid approximately $44,000 for OpenDNS filtering.

E-Rate Program

182 public libraries filed for E-Rate refunds and were awarded approximately $4.11 million.

OPLIN paid $45,000 for E-Rate support and workshops.

forms, and once reimbursed, libraries can spend the money on anything that they need. The OPLIN consortial discount averages 50% to 60%, but discounts for individual libraries can range up to 90%, which can be a critical source of additional revenue. E-Rate underwent significant changes this past year, and some of the new rules were very different for public libraries and schools, particularly for Wi-Fi.

Because it is so important for libraries to claim their E-Rate funds, OPLIN and the State Library sponsor workshops presented by Lorrie Germann, State E-Rate Coordinator, who also assists public libraries in completing the application forms. All Ohio public libraries are required to submit additional E-Rate forms annually to OPLIN, regardless of whether the library itself participates in the program, because we need to know which libraries are CIPA-compliant before applying for E-Rate.

Number of Libraries – Filed for E-Rate
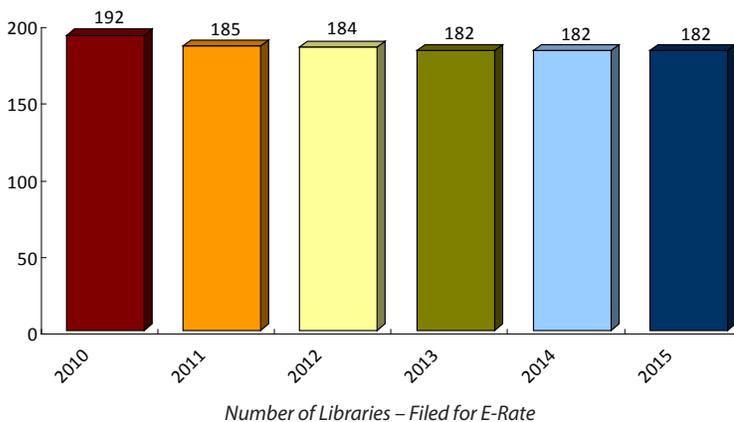
OPLIN received approximately $1.45 million in E-Rate refunds in FY 2015.
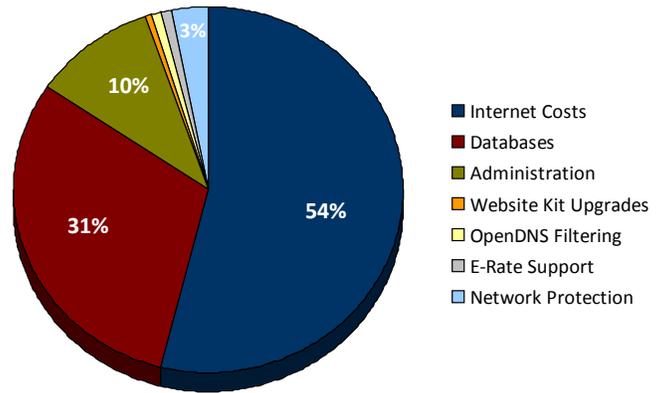
OPLIN Financial Highlights

After four years of an improving state economy and reduced costs in state-agency operations, which have produced a budget surplus in each fiscal year, the Ohio "Rainy Day" savings account currently surpasses $2 billion, a record high balance.

The overall objective of the Kasich administration remains un-changed: Restrain state spending while improving services to taxpayers. OPLIN continues to operate within this objective with only 10.2% of all expenditures going toward administrative costs, including personnel, and all remaining funds being used to provide direct services to Ohio public libraries.

OPLIN received $3,689,788 from the Public Library Fund (PLF) in FY 2015, which is the same amount that was transferred from the PLF to OPLIN in FY 2012, FY 2013, and FY 2014, and this will be the same amount transferred in FY 2016. OPLIN also received $1,449,259 in E-Rate reimbursements in FY 2015 and $53,367 from other sources, including Website Kits.

Funds from previous E-Rate reimbursements were used this year to purchase a solution for protecting the OPLIN network and participants from Distributed Denial of Service (DDoS) attacks.

OPLIN continues to buy last-mile telecommunications services from Time Warner Cable, AT&T, and several other telecom-munications vendors using master state contracts negotiated by the Ohio Office of Information Technology (OIT) for fiber optic circuits. OPLIN uses the OARnet network for some data transport over long and middle-mile distances.

Pie chart legend:
- Internet Costs
- Databases
- Administration
- Website Kit Upgrades
- OpenDNS Filtering
- E-Rate Support
- Network Protection

Pie chart values: 54%, 31%, 10%, 3%

Financial Report

REVENUE		EXPENSES	
Public Library Fund	$3,689,788	Internet Costs	$2,660,461
E-Rate Refunds	1,449,259	Databases	1,514,936
Website Kits	32,979	Administration	505,131
Other Credits	20,388	Website Kit Upgrades	24,904
		OpenDNS Filtering	43,925
		E-Rate Support	45,000
		Network Protection	146,766
TOTAL	$5,192,414	**TOTAL**	$4,941,123
Credit used to offset previous deficits			$251,291

OPLIN Special Projects

From the very beginning of the Ohio Public Library Information Network, twenty years ago, OPLIN has provided not only Internet access for public library systems, but also access to information resources. The original OPLIN website was a link directory to selected online information sources, and OPLIN has always purchased statewide access to premium online databases as well, since 2003 as part of the Libraries Connect Ohio (LCO) partnership.

While the need for link directories has largely disappeared over the years, we had typically included a few "open" Internet links alongside the purchased information resources on our Ohio Web Library (*http://ohioweblibrary.org*) website and its predecessors. That changed this year, as we completed another of our ongoing upgrades to the site and reorganized the presentation of the purchased resources. We took this opportunity to remove the last vestiges of our original link directory and present only information sources either purchased or created by OPLIN and OPLIN partners. We still intentionally maintain one link directory website – ExploreOhio.org – because sometimes people just want to find things that are located only in Ohio.

We found ourselves becoming more deeply involved this year in a new area of online information: Digitization of non-digital information materials so that they can be published online. The Ohio Digitization Hubs project (*http://ohiodigihubs.org*), which received significant financial support from OPLIN in Fiscal Year 2014, got off to a strong start in FY 2015. While OPLIN is not directly involved in digitization work, it has been a pleasure to work with the four Hubs (public libraries in Cincinnati, Cleveland, Columbus, and Toledo) on coordination of procedures and policies, as they have built a strong foundation for future growth and development.

This year, we have become involved through the Digitization Hubs in a new digitization initiative, the DPLA in Ohio Project (*http://www.dplaohio.org*). The Digital Public Library of America (DPLA) is "an all-digital library that aggregates metadata and thumbnails for millions of photographs, manuscripts, and more from libraries, archives, and museums around the United States." DPLA is now working to establish a national network of "Service Hubs" that will gather digital content from states and multistate collaboratives; DPLA will work with one Service Hub for all of Ohio.

There is, however, no single Ohio entity that is the obvious organization to become the Service Hub that brings other Ohio organizations into DPLA. In order to create an Ohio DPLA Service Hub, "a distributed model that involves many organizations needs to be developed in order to accommodate Ohio's diverse regions, types of libraries, and communities of practice. The goal of the DPLA in Ohio Project is to establish a roadmap for Ohio institutions to participate in the DPLA through establishment of a Service Hub." OPLIN is proud to be providing some financial assistance to this planning process and to be included in the leadership of the committees developing the plan.

This new OPLIN interest in supporting digitization, to make more information accessible online, has resulted in a subtle shift in the revised OPLIN Strategic Plan (*http://www.oplin.ohio.gov/strategic-plan-fy-2016-2017*), which was completed at the end of FY 2015. References to "electronic databases," found in previous plans, have been replaced by references to "selected digital information," reflecting a broader commitment to providing online access to high-quality information.

OPLIN
OHIO PUBLIC LIBRARY
INFORMATION NETWORK

2323 W. Fifth Avenue, Suite 130
Columbus, Ohio 43204
Tel: 614-728-5252 | Fax: 614-728-5256
support@oplin.ohio.gov
http://www.oplin.ohio.gov