NORTHWEST REGIONAL DATA CENTER

THE ULTIMATE SOLUTION TO SIMPLIFY YOUR DATA CENTER

2014-2015 ANNUAL REPORT

NORTHWEST REGIONAL DATA CENTER

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Northwest Regional Data Center
2048 East Paul Dirac Drive
Tallahassee, Florida 32310
850.645.3500
The data center updated its mission statement in May 2015.
Thank you for taking the time to review the Northwest Regional Data Center (NWRDC)’s FY 2014-2015 Annual Report. NWRDC is committed to keeping you, our stakeholders, informed and involved. While we look back at last year’s accomplishments, we also want to keep an eye forward for the next opportunity to serve and benefit our member organizations.

For over 43 years now, NWRDC has served as a “computing cooperative”. As an auxiliary of Florida State University, we are part of the State of Florida. However, we receive no funding through FSU or the State. As established in our Charter and Florida Statutes, we are a not-for-profit service provider that can only charge our members for the actual costs of providing the service. Reporting to our customers through our Policy Board, NWRDC is unique in that our rates are approved by the customers we serve.

After discussions with our customers, staff and Board members, the Board approved an updated mission statement for NWRDC, which you will find on the inside cover of this report. This updated statement reemphasizes our dedication to providing secure and cost effective customer service in an enterprise environment.

Over the last few years, NWRDC has grown its community-cloud services portfolio to a level that is more than competitive with many of the larger commercial providers. In fact, Mehran and I presented on this topic at the 2014 EDUCAUSE National Conference, which led to publishing an article in the EDUCAUSE Review (see http://www.nwrdc.fsu.edu/news/). While enhancing the NWRDC community cloud, we have also built partnerships with some commercial providers to provide you with easy access to their cost effective public cloud offerings. We hope through these efforts that NWRDC can serve as your “one stop shop” for all of your cloud computing needs.

As always, I would like to thank all of our customers for their continued trust and support, as well as our Policy Board for its commitment and service to NWRDC. We could not do it without you! If NWRDC can be of any service, please let us know.
On behalf of the Policy Board comprised of our customers, I invite you to review NWRDC’s Annual Report for the 2014-2015 fiscal year.

It is such a rewarding experience to witness the tremendous growth the center has experienced during the past several years both in customers as well as quality of service. Since I became Board Chair in 2010, Server Hosting has grown from just over a quarter of our business to well over half. Our annual budget has increased from $7.8M to $11.7M and we have nearly doubled staff members. New offerings, including Backup as a Service (BaaS) and Cloud Infrastructure Services (CIS) have become among our most popular and in demand services. These changes exemplify the board’s as well as the staff members’ commitment to providing a wide variety of technologies and solutions to our customers.

At the heart of our growth is the quality and value of the services provided to our customers. Through strategic partnerships with industry leaders, we have been able to offer flexible, on-demand storage, backup, and fully hosted virtual data center environments at a substantially lower cost given the business model of mainly cost recovery. These hybrid cloud solutions offer superior performance without the added costs of upfront capital investment. The capacity-on-demand model enables users to maximize cost efficiency, generating substantial savings over traditional solutions.

None of the past year’s growth would have been possible without the center’s continued commitment to customer service. Our competent staff remain dedicated to ensuring each interaction with NWRDC is both positive and rewarding. For over forty years, we have kept the customer in the forefront of our goals, as their satisfaction is key to our success. We will maintain our commitment to providing the highest level of customer service as we grow.

I congratulate the NWRDC management and staff on the center’s growth this year and look forward to continued success in the future.

Mehran Basiratmand, PhD
Chair, NWRDC Policy Board
2010 - Present
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LEADERSHIP TEAM

Thanks to the successful growth of NWRDC, a more robust management structure was put in place this fiscal year which resulted in the promotions of two assistant directors, Mikal Haney and Matt Stolk, to associate director leadership positions. In addition, Geoff Burda was promoted to the newly created position of assistant director of Infrastructure Services. Lastly, we reclassified the operations manager position to an assistant director level and welcomed John Welch into this role.

TIM BROWN – EXECUTIVE DIRECTOR

Tim was appointed Executive Director of NWRDC on April 9, 2008. He brings over 23 years of IT experience to the organization, with a focus on strategic planning, budgeting, building and leading support and development teams in academic settings. Prior to this position, he served as Associate Vice President of the Information Technology Division at Middle Tennessee State University. Tim’s experience also highlights key management positions with the University of Alabama at Birmingham, serving as the Director of IT Infrastructure Services from 2001 to 2005, and Associate Director for Computer Services from 1993 to 2001. Tim earned his Bachelor of Science degree from Auburn University and his Masters of Science in Health Informatics from the University of Alabama at Birmingham. In addition, he is a Certified Information Systems Security Professional and Certified Information Systems Auditor.

MIKAL HANEY – ASSOCIATE DIRECTOR

Mikal has 37 years of experience in diverse technical and management consulting engagements encompassing: data center design, software installation, performance metrics, capacity measurement and production implementation and support. He is responsible for the data center’s facilities and operational support. Prior to joining NWRDC in 2003, Mikal worked with the State of Florida and a myriad of public and private corporations throughout North America as an employee of IBM and other large scale systems providers. He began his IT career while in the United States Marine Corps and received his computer science education at West Texas State University.

MATT STOLK – ASSOCIATE DIRECTOR

With more than 16 years of hands-on technical and managerial experience in enterprise IT architecture, Matt is responsible for the data center’s open systems support group. While serving as NWRDC’s Windows/Linux Team Manager, Matt lead the transition for the Department of Education to full managed services as part of Data Center Consolidation. He has previously held a number of positions at the Florida Department of Corrections, both as a consultant and full staff member working his way from IT support, team lead, server administrator to team manager prior to joining NWRDC.

SHARON PEARSON, CPA, CGFM – CHIEF BUSINESS OFFICER

Sharon has over 25 years of experience in the higher education accounting community as an Assistant Controller, Grants Specialist and Coordinator of Accounting. She serves NWRDC as Chief Business Officer on assignment from her role as an Assistant Director for the University Business Administrators program with Florida State University. Sharon holds her Masters from Florida State University and earned her Bachelor’s degree at Nova Southeastern.
This year, NWRDC celebrated the long-time career of John McNair, who served as a third-shift operator for 35 years. “John’s experience and knowledge made him a vital part of Operations. Everyone at NWRDC slept easier knowing he was on the job”, stated Mikal Haney, Associate Director for Facilities and Operations.

In May 2015, Florida State University, our host institution, recognized several NWRDC employees with their Sustained Service Awards:

- Geoff Burda: 10 years
- Danny Burnett: 30 years
- Richard Garnett: 10 years
- John McNair: 35 years
- Dianna Norwood: 30 years
BUDGETED EXPENSES BY COST CENTER FOR FISCAL YEAR 2014-2015

- **Contract Management**: $486,758, 4%
- **Tallahassee Fiber Loop**: $94,461, 1%
- **Storage as a Service**: $2,278,558, 19%
- **Mainframe**: $2,725,447, 23%
- **Server Hosting**: $6,167,167, 53%

Budgeted expenses versus Indirect cost over the past 5 years

**Server Hosting**

$6,167,167

53%

**Contract Management**

$486,758

4%
TOTAL REVENUE BY COST CENTER FOR FISCAL YEAR 2014-2015

INDIRECT COST RATE FOR FY 2010-11 THROUGH 2014-15
NWRDC is a not-for-profit organization. Per our charter and Florida Statutes, excess revenues above expenses are returned to customers.
## Total Expenses by Type for Fiscal Year 2014-2015

<table>
<thead>
<tr>
<th>Expense Type</th>
<th>Total Percentage</th>
<th>Total Expenses</th>
</tr>
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<tbody>
<tr>
<td>Salary and Benefits</td>
<td>39%</td>
<td>$4,424,265</td>
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<tr>
<td>Salaries</td>
<td>38%</td>
<td>4,383,148</td>
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<tr>
<td>Other Personal Services (OPS)</td>
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<td><strong>General Expenses</strong></td>
<td>58%</td>
<td>$6,642,833</td>
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<td>Software Maintenance</td>
<td>23%</td>
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<td>Contractual Services</td>
<td>13%</td>
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<td>Hardware Maintenance</td>
<td>5%</td>
<td>566,557</td>
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<td>Utilities</td>
<td>5%</td>
<td>532,373</td>
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<tr>
<td>Intrafund transfers</td>
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<td>Telecommunications</td>
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<tr>
<td>Repairs &amp; Maintenance (Facilities)</td>
<td>2%</td>
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<tr>
<td>Supplies (including IT supplies)</td>
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<td>Travel &amp; Training</td>
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<td>Rentals</td>
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<td>Memberships &amp; Subscriptions</td>
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<td>Printing &amp; Duplicating</td>
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<td>Freight &amp; Postage</td>
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<td><strong>Other Capital Outlay</strong></td>
<td>1%</td>
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<tr>
<td><strong>Auxiliary Fees</strong></td>
<td>2%</td>
<td>$241,099</td>
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<tr>
<td><strong>Total</strong></td>
<td>100%</td>
<td>$11,438,190</td>
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</table>
NEW CUSTOMERS

Guardian Ad Litem Agency

During FY14/15, we on-boarded the State of Florida Guardian Ad Litem (GAL) Agency as a NWRDC managed services customer, which included working with GAL IT staff and Citrix consultants in GAL’s Citrix implementation.

The Ringling Museum of Art

NWRDC now serves as an off-site replication target for the backups of The Ringling Museum of Art, located in Sarasota, Florida. This disk-to-disk replication occurs every 15 minutes, and eliminates the need for physically moving backup tapes offsite. By using de-duplication on NWRDC’s target storage, Ringling’s replicated data sees a 30-40X reduction in its data storage needs.

OPEN SYSTEMS

Infrastructure & Storage Services

NWRDC has now fully deployed our Backup as a Service offering. This service is built on EMC’s Data Protection Suite. It leverages Avamar, Networker, and Data Domain to provide a complete backup suite. The solution includes all OS and application software clients, as well as encryption at rest and in transit. Customers have the option to replicate to our Avamar grid at our secondary site in Atlanta.

We worked with our Mainframe team to replace the legacy Automated Tape Library (ATL) with our new BaaS offering, allowing for daily backup replication to our Atlanta DR facility. This reduced the backup costs for our mainframe customers while also improving the service.

NWRDC continues to increase its storage footprint as we bring in new customers to our capacity-on-demand storage offering. Our storage services now provide over 900 TB.

With the growth of virtualization increasing to 15 hosts and approximately 460 virtual machines, we saw the need to create a specialized team dedicated to this technology. Therefore, we formed a Virtual Infrastructure Management team, which had previously been internal within the managed services group. In addition to managing our customers various dedicated virtual environments, this team also manages our Cloud Infrastructure Service (CIS), where customers can create their own virtual environments without the upfront capital costs of building their own.

Internal Services

Knowing the importance of communication in our line of business, NWRDC has expanded the DR capabilities of its Exchange environment by deploying a GEO cluster at our DR site. In addition, we have increased functionality by also leveraging a cloud provider for email archiving and journal functionality.

Florida Department of Education

The Server team relocated the Department of Education’s disaster recovery from Santa Fe Community College (SFCC) to our Atlanta site. This allowed the customer to move out of the SFCC facility and decommission old server and storage hardware, while migrating to NWRDC’s state-of-the-art virtual environment in Atlanta.

DOE’s enterprise archive was running on hardware that was over five years old, on an operating system
that was no longer going to be supported as of June 2015, and on an application version that the vendor no longer supported except as best effort. It was a very complicated and time consuming process to migrate 25 TB of data residing on three different storage devices. It was also a multi-step process to migrate the enterprise archive application and the associated SQL databases onto updated hardware and operating systems. The application is now running smoothly and is fully supportable.

The Server team worked with DOE and other NWRDC internal teams to upgrade most of DOE’s Race-to-the-Top application landscape from Windows Server 2008 R2 to Windows Server 2012 R2.

**Florida Division of Vocational Rehabilitation**

We implemented new products to include web/spam filtering and load balancer to replaced older solutions, thereby providing the customer enhanced capabilities and savings on maintenance.

**MAINFRAME**

The Mainframe team worked with Storage Services to replace our aging IBM Automated Tape Library (ATL). Using Luminex VTS as the intermediary, our mainframe environment now leverages the Backup as a Service (BaaS) offering in both Tallahassee and Atlanta. The increased performance of the new service has helped reduced our customers’ nightly batch windows by several hours, and in some cases by 4 to 5 hours. In the past, rotating backups off site was a manual process, kept local to Tallahassee. Under the new service, daily backups are now replicated to NWRDC’s Atlanta site. Phasing out the ATL also freed up floor space and power that can now be used for other customer projects.

The IBM Infosphere Data Replication tool was installed at the request of the Florida Department of Education for their exclusive use. The purpose of this tool is to mirror mainframe DB2 data activity to SQL Server instances in the FDOE Data Warehouse environment. There have been many challenges associated with this install, and the project is not yet in a production status. We continue to work with the FDOE on ironing out the options and features associated with this complex environment.

"NWRDC’s combining its tried-and-true mainframe service with its new cloud-based Backup as a Service offering was a great innovation. It increased the speed of our nightly batch processing, reducing our nightly runtime by 3 to 4 hours."

--Michael Wade, Florida Department of Education
NWRDC conducted two successful Mainframe Disaster Recovery exercises in fiscal year 2014-2015. The 2014 exercise was held on October 30 – November 1, 2014. The exercise began at 8:00 a.m. on October 30, 2014. The operating system was restored and available by 1:30 p.m. All customer data was restored and available by 9:00 p.m.

Customer testing began at 8:00 a.m. on October 31, 2014. We have documentation of the following customers participating in the exercise: The City of Jacksonville, OSFA, DOE, Santa Rosa County Schools, PAEC, and Chipola College.

The 2015 Disaster Recovery exercise was held on April 30 – May 2, 2015. The operating system was restored and available by 2:30 p.m. All customer data was restored and available by 10:00 p.m. Customer testing began at 8:00 a.m. on May 1, 2015. We have documentation of the following customers participating in the exercise: The City of Jacksonville, OSFA, DOE, Santa Rosa County Schools, PAEC, and Leon County Schools.

Facilities and Operations designed and installed air return plenums on all computer room air conditioners (CRACs). This project allows us to better separate the hot air on the raised floor from the cold air being generated by the CRACs. Upon completion of this project, NWRDC was able to reduce power consumption while increasing chilled air throughout the raised floor area.

We installed additional security cameras outside the facility to insure more comprehensive monitoring of critical facility resources. These cameras provide an expanded view for the Operations Control Center while improving safety.

Our Operations staff updated their procedures for keeping customer building access lists up to date. The new process increases security and communication with our customers.

In addition, we completed a project to replace the HVAC plant for the administrative portion of the NWRDC building. The new unit increases efficiency and reduces cooling costs.
On July 1, 2014, we implemented QuickBooks and Salesforce Customer Relationship Management (CRM) software to gather information and gain efficiencies for NWRDC. Both of these implementations have saved money, and streamlined our business processes. We have also been able to use the real time reporting function of each of these programs to give us information that can be used in other areas.

The implementation of QuickBooks has saved us a considerable amount of time and money in our billing and collection processes. Invoices are now automatically generated and emailed to our customers on a monthly basis, replacing the previous manual process. Collection efforts have been reduced. The average days to collect an invoice (from creation of the invoice to depositing the check) has decreased from 44 days in FY 13/14 to 17 days in FY 14/15. With real time reporting, we have been able to quickly and easily create accounts receivable reports and monthly service counts, while saving considerable staff time and ensuring all customers were charged accurately as their service needs changed throughout the year. These billing and collection efficiencies resulted in a reduction of our staff as well as reassigning portions of other FTEs to other projects/areas.

The implementation of Salesforce CRM allows us to keep track of all leads that come to us through our website, conferences, presentations and word of mouth. We are able to store this information and run various reports to give us helpful information and metrics to see where it is best to focus our marketing efforts. In addition, we are able to run reports for our internal management team that helps our staff be involved and informed about new customers or new services coming to NWRDC. In addition, we are able to calculate metrics so that we can review and update our business processes to gain maximum efficiency.
NWRDC was pleased to host two open houses on June 15th and 16th. Participants included current state and educational customers as well as members of the K-12 MIS community who were in Tallahassee for the annual FAMIS Conference. Staff met with attendees, led data center tours, and conducted interactive presentations on the center’s new backup and cloud service offerings. We look forward to scheduling additional customer events throughout the state in the near future.
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