It is our mission to be the most efficient and innovative data center in the State of Florida through state-of-the-art technology, leadership and partnerships. We are a dedicated service organization committed to providing a wide range of technology support for primarily public and not-for-profit entities on a cost recovery basis. We fulfill our mission by supporting our customers in accomplishing their goals and missions.
NWRDC was featured in two industry publications this year. The first involved a case study in the Center for Digital Government’s paper, Everything-as-a-Service: How the inevitable unbundling of technology will impact the future of state and local government, where it highlighted NWRDC’s community cloud service, which offers innovative enterprise-level solutions to universities, school districts, and state and local governments at significant cost savings. The second was the August 2015 edition of the EDUCAUSE Review, a bimonthly flagship publication for the higher education IT community that featured an article on NWRDC’s role as a community cloud.
I invite you to review NWRDC’s Annual Report for the 2015-2016 fiscal year. The Policy Board is comprised of us, customers.

It is such a rewarding experience to witness this Center build on its success and continue to experience a remarkable growth during the past several years. It is equally impressive that this growth has been in congruence with improvement in quality of service and customer experience. I have served as your elected chair since 2010, and am utterly pleased to note that every cost center is operating efficiently and within its budget. Furthermore, the annual operating budget has now grown close to $13M from $7.8M a few years back and our staffing has nearly doubled. In addition, the Center has been positioned to offer new in-demand services. These include, but are not limited to: Backup as a Service (BaaS) and Private Cloud Infrastructure Services (CIS). These changes demonstrate the overarching commitment of my colleagues on the board as well as the staff members in providing a wide variety of quality technologies and just-in-time competitive solutions to our customers.

Our core value continues to center around customers and the Center’s ability to provide superior service at a competitive cost. Through strategic partnerships with several industry leaders, we have been able to secure contracts to provide on-demand storage, backup, and fully hosted virtual data center environments at substantially lower costs. This has clearly contributed to the business model of cost recovery and not-for-profit enterprise. These partnerships have presented us the opportunity to offer hybrid cloud solutions with minimal upfront capital investment. The capacity-on-demand model has enabled our customers to maximize cost efficiency, generating substantial savings over traditional solutions, and to provision resources on an as-needed basis.

These positive outcomes would not have been possible without the Center’s continued commitment and focus on customer service. Our competent team of qualified technology experts are dedicated to ensuring each interaction with NWRDC is pleasant. For over forty years, we have kept the customer in the forefront of our philosophy, as their satisfaction is one of our key measures of success. We will maintain our commitment to providing the highest level of customer service.

I congratulate my colleagues on the Policy Board and most importantly, the NWRDC management and staff members on the Center’s reach for excellence this year and look forward to continued success as we move forward.
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Policy Board Retirement & Reappointment

After serving for over two decades representing Florida International University, Board Member Emeritus Pete Taylor officially said his good-byes at the June 2016 meeting. On behalf of the board and the data center staff, Executive Director Tim Brown presented Pete with tokens of appreciation. His historical perspective and wonderful sense of humor will be greatly missed. Congratulations and best wishes Pete!

Henry Martin, Walton County Schools, was reappointed to the K-12 Representative seat for another 2-year term. Congratulations Henry!
Letter from the Executive Director

Thank you for taking the time to review the Northwest Regional Data Center (NWRDC)’s FY 2015-2016 Annual Report. I am pleased to mark our 44th year of providing superior service to Florida’s educational and governmental communities. Due to the efforts of our excellent team here at NWRDC, our Policy Board, and you, our stakeholders, we continue to grow in our ability to serve.

NWRDC had several successful projects this year that created new offerings or added value to existing services. Our Tallahassee Fiber Loop doubled in size, giving more customers direct access to NWRDC’s services in both Tallahassee and Atlanta. Our Cloud Infrastructure Service (CIS) had several new customers in the first part of the year, allowing us to reduce the CIS rate after only the first quarter of the fiscal year. Our Mainframe team completed the migration from a physical tape library to our cloud-based Backup as a Service offering, resulting in both cost savings and a performance increase to those customers. Our partnership with SecureWorks has grown by leaps and bounds and NWRDC is now their fastest growing channel partner. These are just a few of the projects you’ll find detailed later in this report.

NWRDC’s finances also continue to be strong. For the sixth straight year, many of our lines of service credited money back to customers at the year’s end. I challenge you to find another cloud services provider where the customers approve all of the service rates and receive refunds for any money left over at the end of fiscal year!

Again, all of these accomplishments are due to NWRDC’s very dedicated staff, the leadership of our excellent Policy Board, and you! If NWRDC can be of any assistance, please let us know.

Thank you!

Tim Brown
Executive Director, NWRDC
NWRDC continued the reorganization efforts started last fiscal year with several promotions and a couple of new hires in FY2015/2016. Dianna Norwood was promoted into the newly created Associate Director for Administrative Services role responsible for the data center’s administrative functions including customer relations and contract management. Two system administrators, Derick Jackson and Lori Gormin, were given their own functional teams to manage in addition to serving as customer service coordinators. Steve Oropallo was hired as the new Storage and Recovery Services Manager and Julie (Sam) Marshall joined NWRDC to lead the Patch Management Team.

Tim Brown - Executive Director
Tim was appointed Executive Director of NWRDC in April, 2008. He brings over 24 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 since 2005. 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.
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Mikal Haney – Associate Director

Mikal has 38 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.

Dianna Norwood – Associate Director

Prior to joining the NWRDC team in 2013, Dianna served as Marketing and Public Relations Director for Florida State University’s Division of Finance and Administration, which included the university’s business services operations. Dianna currently manages the administrative services in support of the data center and its customers. Her 30-year career at FSU started as the Student Affairs Coordinator responsible for the overall direction of the computer systems focused on increasing the efficiency of computer applications used campus wide by administrators and students. She later served as Director of the Card Application Technology Center and the FSUCard Center where she coordinated smart card application development for FSU, the higher education industry, business partners, financial institutions and trade associations. Dianna earned her Bachelor of Science degree in Business Communication and Marketing from FSU.

Matt Stolk - Associate Director

With more than 12 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 led 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 Financial Officer

Sharon has over 22 years of experience in the higher education accounting community as an Assistant Controller, Grants Specialist and Coordinator of Accounting. She serves NWRDC as Chief Financial 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
In May 2016, Florida State University, our host institution, recognized William “Bill” Kirk for his 20 years of service.
In May 2016, Florida State University, our host institution, recognized William “Bill” Kirk for his 20 years of service.
Financials

BUDGETED EXPENSES BY COST CENTER

- Storage as a Service: 21%
- Mainframe: 21%
- Server Hosting: 49%
- Tallahassee Fiber Loop: 1%
- Contract Management: 8%

PERCENTAGE OF REVENUE FOR STORAGE OVER THE FIRST 4 YEARS OF SERVICE OFFERING

- FY 12-13: 5%
- FY 13-14: 5%
- FY 14-15: 14%
- FY 15-16: 22%
TOTAL REVENUE BY COST CENTER

- Mainframe: 20%
- Storage as a Service: 21%
- Tallahassee Fiber Loop: 2%
- Contract Management: 2%
- Server Hosting: 55%

BUDGETED EXPENSES versus INDIRECT COST over the PAST 5 YEARS

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Indirect Cost</th>
<th>Budgeted Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY 10-11</td>
<td>8M</td>
<td>0K</td>
</tr>
<tr>
<td>FY 11-12</td>
<td>8M</td>
<td>0K</td>
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<tr>
<td>FY 12-13</td>
<td>8M</td>
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<tr>
<td>FY 13-14</td>
<td>12M</td>
<td>0K</td>
</tr>
<tr>
<td>FY 14-15</td>
<td>12M</td>
<td>0K</td>
</tr>
<tr>
<td>FY 15-16</td>
<td>16M</td>
<td>0K</td>
</tr>
</tbody>
</table>
NWRDC is a not-for-profit organization. Per our charter and Florida Statutes, excess revenues above expenses are returned to customers.

**AVERAGE DAYS TO COLLECT ACCOUNTS RECEIVABLE**

- **52 days** (FY 12-13)
- **44 days** (FY 13-14)
- **17 days** (FY 14-15)
- **17 days** (FY 15-16)
### NORTHWEST REGIONAL DATA CENTER
#### TOTAL EXPENSES BY TYPE

<table>
<thead>
<tr>
<th>Expense Type</th>
<th>Total Percentage</th>
<th>Total Expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary and Benefits</td>
<td></td>
<td>$4,911,756</td>
</tr>
<tr>
<td>Salaries</td>
<td>38%</td>
<td>$4,872,390</td>
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<tr>
<td>Other Personal Services (OPS)</td>
<td>0%</td>
<td>$39,366</td>
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<tr>
<td><strong>General Expenses</strong></td>
<td></td>
<td>$7,509,404</td>
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<tr>
<td>Contractual Services</td>
<td>19%</td>
<td>$2,531,155</td>
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<tr>
<td>Software Maintenance</td>
<td>11%</td>
<td>$1,458,982</td>
</tr>
<tr>
<td>Hardware Maintenance</td>
<td>10%</td>
<td>$1,290,434</td>
</tr>
<tr>
<td>Intrafund Transfers</td>
<td>4%</td>
<td>$539,275</td>
</tr>
<tr>
<td>Utilities</td>
<td>4%</td>
<td>$488,779</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>2%</td>
<td>$294,481</td>
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<tr>
<td>Repairs &amp; Maintenance (Facilities)</td>
<td>3%</td>
<td>$379,154</td>
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<tr>
<td>Depreciation</td>
<td>1%</td>
<td>$187,275</td>
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<tr>
<td>Travel &amp; Training</td>
<td>1%</td>
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<tr>
<td>Memberships &amp; Subscriptions</td>
<td>0%</td>
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<tr>
<td>IT Supplies</td>
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<tr>
<td>Insurance</td>
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<tr>
<td>Rentals</td>
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<td>Printing &amp; Duplicating</td>
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<tr>
<td>Supplies</td>
<td>0%</td>
<td>$7,729</td>
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<tr>
<td>Freight &amp; Postage</td>
<td>0%</td>
<td>$149</td>
</tr>
<tr>
<td><strong>Other Capital Outlay</strong></td>
<td>4%</td>
<td>$592,258</td>
</tr>
<tr>
<td><strong>Auxiliary Fees</strong></td>
<td>3%</td>
<td>$332,258</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>100%</td>
<td>$13,346,302</td>
</tr>
</tbody>
</table>

NWRDC completed a $592K re-roofing project in early April before the start of the 2016 hurricane season. NWRDC and FSU Facilities perform routine aerial scans of the roof structure using drone mounted infrared cameras in order to detect “hotspots”. These scans help us find issues before they become problems. After examining the most recent data, NWRDC leadership decided to invest in a replacement roof infrastructure even though no leaks had been detected inside the building. This new 15 year roof will help better protect customer assets while reducing our cooling needs. This was accomplished without raising our service rates to our customers.
Accomplishments

Tallahassee Fiber Loop Expansion

This past fall, NWRDC was able to double the size of its Tallahassee Fiber Loop service, from 14.3 miles to over 28 miles. This expansion allows the State of Florida Agency for State Technology and other customers to connect back to NWRDC via secure dedicated fiber, and also provides connectivity to NWRDC’s secondary site in Atlanta. By expanding and adding in new customers, this helped reduce TFL costs to our existing customers. TFL also serves as the last mile connector in Tallahassee for the Florida Lambda Rail.

Open Systems

Race to the Top to CIS Migration

In an effort to assist the Florida Department of Education (DOE), NWRDC transitioned the DOE Race-to-the-Top environment out of its existing virtual environment into NWRDC’s community cloud. This transition helped as their hardware was coming to its end of warranty and in some cases end-of-life. There were also savings in management costs and software licensing.

The tight deadlines for this project and the coordination needed between DOE and various NWRDC teams led to a hectic migration. However, the teamwork between DOE and NWRDC resulted in a successful project overall which benefited all NWRDC cloud customers.

Unprecedented Mid-year Rate Reduction

NWRDC was able to realize an unprecedented mid-year rate reduction of its Cloud Infrastructure Services (CIS) due to the ongoing consolidation of customers’ virtual environments and the resulting growth of NWRDC’s cloud infrastructure services. The savings generated by the significant reduction in Compute Memory Bundle (CMB) pricing were applied to all CIS customers, who saw their CIS rates decrease by over 1/3! NWRDC was also able to renegotiate its Storage Service contract and reduce storage costs by 10% during the fiscal year.

Disaster Recovery

A focus for many organizations is disaster recovery and NWRDC is no different. This year the CIS team has assisted NWRDC in streamlining its disaster recovery processes. Through automated tools we have been able to seamlessly exercise our DR plans multiple times this year.

UCS Performance Manager

The NWRDC CIS team was able to successfully implement software into the hardware layer of our server infrastructure to help manage and track performance characteristics within our environment. This software assists in day-to-day monitoring as well as advanced troubleshooting by tracing performance of the server hardware, IP and fabric network from the VM through to the end device.
Backup as a Service

NWRDC’s Backup as a Service (BaaS) has experienced tremendous growth over the last fiscal year, and we fully expect to continue on with that momentum. Keeping pace with this growth by expanding the team will allow us to proactively optimize our workflow, ultimately to our customers benefit. Faster backups, greater de-duplication/compression ratios, and detailed reporting are a few of the goals we have set for ourselves. BaaS team members are working with our customers to anticipate and test specific data recovery scenarios, building successful templates for data protection and quick restoration efforts when it is needed the most.

BaaS milestones this year included:

• Migration of DOE Legacy environments into Backup as a Service
• On-Boarding of new customers into Backup as a Service: Walton County School District; Washington County School District; Early Learning Coalition of Okaloosa & Walton Counties; Florida State University Schools (FSUS/Florida High); State University System of Florida Board of Governors.
• Performed multiple Data Domain operating system upgrades, as well as two separate hardware refreshes (DDR Head-swap) due to growth.

Network

The network team implemented a scalable wireless mesh network for NWRDC guests with coverage throughout the data center and employee areas. We also successfully placed new firewalls into production service at the NWRDC presence in Atlanta. Not only did this relieve a major bottleneck being experienced by our BaaS infrastructure, these firewalls are licensed and configured in such a way that we can offer their use to customers as well. Additionally, we performed a hardware refresh for Florida Department of Education’s OE load balancers, which resulted in an exponentially greater level of performance.

NWRDC congratulates our Network Manager Jason Bertoch and the Vocational Rehab (VR) Common Migration Team for their 2016 Prudential Productivity win. The Prudential Productivity Awards Program recognizes state employees and work teams whose innovative solutions measurably improve the delivery of state services, saving taxpayers money. For this project, Jason was able to identify and put into effect a change to the VR network that allowed them to terminate their Common Services MFN connection. As a result, VR will realize recurring annual savings of up to $80,000. Team members Susan Whitmire (VR), Nancy Lee (VR), Kelli Allen (VR), Tommy Wagner (Dept. of Management Services) and Jason worked tirelessly to solve the many issues encountered during the project. Their success was recognized at the Prudential Awards Luncheon held on June 15, 2016 in Tallahassee.

(Left to Right) Kelli Allen, Susan Whitmire, Jason Bertoch, Nancy Lee and Tommy Wagner

Storage as a Service

Our Storage as a Service (STaaS) offering has continued to furnish the rock-steady foundation for many virtual and physical environments. Consistently delivering over 1.5 PB of data in a capacity-on-demand model, we provide the flexibility our customers demand in order to expand or decrease their storage footprint as their business needs dictate. This fiscal year, as a further value in the service, full encryption licensing was added into our core StaaS rate at no additional cost, saving one of our customers close to $100k annually. We also increased the amount of reserve storage we kept in inventory so that new storage requests can be handled in a faster timeline.

In order to keep up with current storage trends and technologies, the STaaS team is also exploring new services such as all-flash storage arrays that are optimized for high IOPS delivery, as well as more cost-effective solutions for long term file or object-level storage. In additional to managing NWRDC’s own internal storage service, our team also manages many customer-owned storage solutions.
STaaS milestones this year included:

- Migration of Florida Department of Revenue storage located in Atlanta into Storage as a Service. Assist with decommission of legacy storage platform.
- Onboarding of State University System of Florida Board of Governors as a Storage Managed Services Customer.
- Florida Department of Business and Professional Regulation Connectivity into Storage as a Service.
- DOE SAN upgrade
- DOE Backup Compellent optimization.
- Stand-Alone Data Domain DDOS upgrades for both local and remote data centers.

Facilities & Operations

Last year, NWRDC began the rollout of a monitoring solution as part of its managed service offering. Efforts continued this year, with NWRDC’s own back office systems, Guardian ad Litem, Office of Early Learning, Vocational Rehabilitation, and Department of Blind Services being added. This will allow for NWRDC to be more proactive in its service monitoring and find potential problems before they occur.

Continuing a project begun last year, NWRDC further enhanced its physical security by adding multiple cameras to its existing video coverage. These cameras all tie back to NWRDC’s Operations Center, which is staffed 24x7. NWRDC continued with year 3 of a 5-year plan to up its electrical panel. This project replaces the 30 year old electrical distribution panels with more modern units. This will provide greater reliability to our customers.

NWRDC upgraded one of the redundant HVAC units that protects the mechanical and UPS infrastructure. This new unit will provide greater coverage while reducing operational costs.

In a project led by FSU Facilities, NWRDC’s fire alarm system was updated. The new equipment provides additional functionality and a much needed refresh of a critical component that protects the Tallahassee facility. This system also ties into the exiting inert gas fire suppression system that covers the data center floor.

Finance and Administration

In June 2016, Florida State University, our host institution, consolidated their IT University Business Administrators positions which meant our onsite financial staff moved to campus. As a result, we reorganized the Finance and Administration section into two operational units. Sharon Pearson remains NWRDC’s Chief Financial Officer managing the finance side of the house and Dianna Norwood was named Associate Director for Administrative Services. Both groups continue to work hand-in-hand with each other to support the daily operations of the data center. In addition, Audrey Campbell was hired as the new Customer Relations Manager this spring.
During the Spring 2016 semester, NWRDC welcomed Florida A&M University CIS and CNT students to the data center. Over 50 students from Instructor Charlene Watson’s Computer Systems & Network Fundamentals and Applied Security classes participated in an in-depth tour and informational session led by Executive Director Tim Brown and Associate Director Matt Stolk.

Ms. Watson informed her students they “absolutely have to understand that today’s world is all about data: the care of it, the storage of it, the processing of it, the security of it, and the verification of it.” She continued, “The tour of NWRDC will help the students to understand the breadth, depth, and enormous scope of what it takes to maintain networking on a vast scale.”

The students utilized the information gained on their visit to prepare for two Teco Projects, for which they designed their own networks from the ground up. Mr. Brown, Mr. Stolk, and Board Member David Cantrell attended the presentations and were impressed with the students’ hard work and knowledge. Ms. Watson thanked NWRDC for its support of her classes. “It takes a community, investing together, in the future of all of our young people to show them what a very bright future they can have.”
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