Fiscal Year 2020 Annual Report



Iowa Communications Network

Providing High Speed Internet, Data, Voice, Security, & Consulting Services

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IOWA TELECOMMUNICATIONS AND TECHNOLOGY COMMISSION



Barb Kniff McCulla CHAIR

Timothy L. Lapointe Krista Wenzel Robert F. Holz Annette Dunn Steven Olson Rob Sand

Randy Goddard, Executive Director

Governor Kim Reynolds

Lt. Governor Adam Gregg

November 24, 2020

The Honorable Kim Reynolds Governor, State of Iowa State Capitol Des Moines, Iowa 50319

Dear Governor Reynolds:

It is my pleasure to have the opportunity to submit the Fiscal Year (FY) 2020 Annual Report on behalf of the Iowa Telecommunications and Technology Commission (ITTC) overseeing the Iowa Communications Network (ICN).

In FY 2020, the ITTC and the ICN were proud to support our customers in the education, healthcare, government, and public safety sectors. This publication reviews those accomplishments, but some of the most important work is highlighted here.

- Supporting our customers during the COVID-19 pandemic by providing valuable connectivity services which consisted of:
 - » Installation of a new 10Gb Internet connection for additional VPN bandwidth needed for government teleworkers.
 - » Delivering Voice support by adding call forwarding mobility features for teleworkers. Government employees working remotely have been able to continue answering their phones and providing services to lowans.
 - » Consulting with the education sector regarding telecommunications assistance.
 - » Providing bandwidth increases and telecommunications support for hospitals and clinics. These increases were performed at no cost to the facility within 48 hours.
- Partnering with the Iowa Department of Homeland Security and Emergency Management (HSEMD) to merge the existing wireline carrier network onto HSEMD's Next Generation 911 (NG911) IP Network. By using the ICN's network, this migration reduces the cost to HSEMD and taxpayers, as well as establishing a state-of-the-art network for NG911.
- Completing the migration to a Voice over Internet Protocol (VoIP) platform by partnering with CenturyLink. Our VoIP platform initiative included moving over 8,000 phones for 168 authorized customers.

We also have a number of priorities we are moving forward in FY 2021 that support our customers' broadband needs:

- Completing a multi-year network upgrade to our core IP infrastructure, which incorporates Ethernet technology. This advancement will enable the Network to operate at 100GB, with an upgrade path of up to 200GB.
- Developing future services (storage, compute, networking, and management) that can be layered on our IP infrastructure and provided to our users. In addition, ICN will upgrade the security features associated to the State Firewall and DDoS Mitigation services.

On behalf of the Commission and all ICN employees, we appreciate the opportunity to be of service.

Sincerely,

Barb Kniff McCulla

Chair, Iowa Telecommunications and Technology Commission

Saw Kniff Melula-Chaire

Fiscal Year 2020 Annual Report

Contents

Iowa

Telecommunications and Technology Commission

Barb Kniff McCulla, Chair

Robert Holz

Krista Wenzel

Timothy L. Lapointe

Steven Olson

Rob Sand, ex officio State of Iowa Auditor

Annette Dunn, ex officio Chief Information Officer

Executive Team

Randy Goddard Executive Director

Deb Evans Chief Financial Officer

Mark Johnson Chief Operating Officer

About the Iowa Communications Network

A state-of-the-art fiber optic network providing telecommunications services to authorized users. Services: High Speed Internet • Data • Voice • Security • Consultation

Authorized Users

Education 7



Locations Served:

- 348 Public & Private K-12 locations
- 9 Area Education Agencies (AEA) (45 sites)
- 15 Community Colleges (30 sites)
- Board of Regents: 3 Public Universities
- 20 Private Colleges

Public Safety 🚺



Locations Served:

- 113 Iowa Homeland Security & Emergency Management PSAP locations Public Safety Answering Point (PSAP) for NG911.
- 179 Dept. of Public Safety and Homeland **Security locations**
- 38 Iowa National Guard locations

Government minima



Locations Served:

- 133 Judicial Branch locations Connections to all county courthouses.
- 265 Dept. of Transportation locations Connections to maintenance garages, driver's license stations, and construction offices.
- 158 Dept. of Human Services locations Connections to DHS offices across the State.
- 59 Workforce Development locations Connections to satellite offices.
- 231 additional State, Federal, miscellaneous government locations

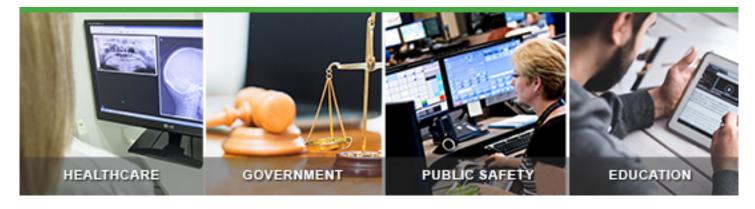
Healthcare



Locations Served:

- 100 Hospitals
- 177 Clinics and other Healthcare Providers
- ICN manages Iowa Hospital Associations' healthcare broadband network (IRHTP).

Committed to Providing Secure Telecom Services to Our Sectors



Service Options

Security | Data | Communications | Professional Services



Internet

- · Speed scalability.
- · Symmetrical.
- Network redundancy.
- · Content peering.



Ethernet

- Direct connection between two or more locations.
 - · Point to point.
 - Aggregated. (point to multipoint)



Voice

- IP platform.
- Cloud hosted environment.
- Encryption.
- Free long distance.



DDoS Mitigation

- Automatic detection.
- Mitigate malicious activity.
- Cleanse compromised traffic.



State Firewall

- State government users.
- ICN manages network traffic, allowing it to pass through or be blocked.



Colocation

- Decreased maintenance costs.
- Increased physical security.



Structured Cabling

- Design and install rack systems.
- Install, extend, and troubleshoot data circuits.



Consultation

- · Telecom support.
- · Network architecture.
- Outside plant designs.
- Security.
- · Wireless designs.



Voice Conferencing

- · On-demand.
- Leader-controlled dial out, roll call, and conference lock features.
- Password and conference lock.



Security

- · Firewall.
- Incident Response & Forensic Investigation.
- Network Assessment & Penetration Testing.



Local Area Network (LAN)

- Connect single building and/or multiple buildings.
- Coverage based on number of Ethernet ports.



Wireless LAN

- · Increased mobility.
- Improved end user connectivity.
- · Wireless access points.

Services Update



Internet Purchased by Sector:

 Education: 150.516 Gb · Healthcare: 3.860 Gb · Government: 30.565 Gb

• Public Safety: 7.125 Gb

• Total Internet Purchased: 195.066 Gb

Bandwidth Growth:

Total Internet bandwidth growth compared to FY19: 145,350 / 195,066 = 34%



Centurylink, Managed Service Provider

VoIP platform is hosted from a cloud environment.

- To date, there are 168 active customer groups*, with over 8,000 employee seats activated. *One building can incorporate multiple customer groups.
- The service provides relocation benefits during disaster recovery situations, no long distance or 800 expenses, and call encryption.

Security

Distributed Denial-of-Service (DDoS) Mitigation

ICN has 30 customers being protected.

During the Last 12 Months:

- Detected 10.820 DDoS attacks on the State's Network.
- Longest DDoS attack was 11 hrs, 59 mins, 29 secs.
- Largest DDoS attack was 4.38TB (Terabyte).

Managed Firewall

15 customer subscribers.

This premier Firewall service comes with:

- Global, Proactive Threat Library
- Licensing & Hardware
- Equipment Migration

Colocation III



- Iowa Homeland Security and Emergency Management
- Iowa Department of Transportation

ICN Supports Customers to Combat the Spread of COVID-19

In March 2020 when the COVID-19 pandemic first began, ICN provided telecommunications and broadband support

and consultation to State agencies, the Legislative and Judicial branches of government, healthcare providers, and educational institutions. Specific support included:

- Installed a new 10Gb Internet connection for the additional VPN bandwidth needed for government teleworkers to connect back to their network resources from remote locations.
- Provided 15 agencies with increases in bandwidth.
- Delivered Managed Voice service by adding Business Communicator for customers who implemented teleworking.
- Tested and validated phones used for Emergency Activation for the Governor and her team.
- Installed cabling and switches to support data and voice. MVS reconfiguration to support relocation of MVS phones and fax line for the Iowa Department of Public Health to Joint Forces Headquarters.
- Increased Voice Conference Calling accounts for Judicial services.
- · Implemented 800 phone numbers.
- Provided direct event conferencing to support 1,000+ callers.
- Communicated with community colleges, private colleges and area education agencies regarding telecommunications assistance.
- Provided bandwidth increases and additional telecommunications support for hospitals and clinics to provide telehealth services.

Agency Initiatives

FY 2020 Legislative Session Recap

The Legislature adjourned the 2020 Session of the 88th General Assembly on Sunday, June 14.

Iowa Telecommunications and Technology Commission (ITTC) Update:

- Commissioner Steve Olson's appointment to the ITTC was confirmed by the Senate on March 4, 2020.
- Commissioner Krista Wenzel's appointment to the ITTC was confirmed by the Senate on June 10, 2020.

Firewall & DDoS Mitigation Appropriation:

ICN received a \$2.7M appropriation from the Governor's original budget request for Firewall & DDoS Protection. This appropriation will ensure the continuation of critical cyber protection for State government agencies currently receiving these services at no cost.

Contracts Exceeding \$1 Million, Code of Iowa Reference

ICN contracts entered into during FY 2020 exceeding \$1 million, as required by the Code of Iowa, Section 8D.3(3)(f).

None

Students Selected for Broadband Council for 2019-2020 School Year

Ten lowa high school students were selected to serve on the Statewide Youth Broadband Advisory Council (SYBAC). Throughout the school year, the students met with ICN Leadership and discussed broadband in schools, cybersecurity, coding, and wireless technology.

The following students were selected to ICN's SYBAC for the 2019-2020 school year:

- · Alex Baker, Clarinda High School, Clarinda
- Austin Grant, Boyer Valley High School, Dunlap
- Simeon Bulk, Unity Christian High School, Orange City
- Benjamin Danielson, Colo-Nesco High School, Colo
- Gavin Hyde, Wapsie Valley High School, Fairbank
- Sanora Nelson, Colo-Nesco High School, Colo
- Emmy Richardson, Valley High School, West Des Moines
- Caden Schweitzer, Liberty High School, North Liberty
- Gabrielle Valencia, East Union High School, Afton
- Blake Van Der Kamp, Prairie City Monroe High School, Monroe



Network Enhancements in FY 2020

Core Network Upgrade

The ICN continued work on the network upgrade to our core IP infrastructure, which is anticipated to be completed in early 2021, and will incorporate Ethernet technology. This upgrade involves implementing and maintaining a native 100GB network, throughout the state, which is scalable up to 200GB as needed. At the state network level, the ICN will provide a highly resilient, secure, and high-capacity wide area network (WAN). This upgrade also enables the ICN to proactively manage the ever increasing bandwidth needs of our users. The upgrade will provide sufficient capacity at the core of the Network to securely carry the state's voice, Internet and data traffic as needed, without degradation. ICN anticipates a reduction of our internal transit/transport costs.

Homeland Security, 911 Merger

Partnership with Iowa Homeland Security and Emergency Management (HSEMD)

The ICN currently provides a closed secure infrastructure for 911 wireless calls. Through an RFP process the ICN was awarded a contract by Homeland Security to provide additional infrastructure and services related to HSEMD's initiative to merge the existing wireline carrier network, consisting of all the State's wireline providers on Homeland's Next Generation 911 Emergency Services IP Network (ESInet).

The ICN is also collaborating with HSEMD's other two partners to provide a geographically redundant multi-node hosted E911 platform. The ICN is providing colocation facilities and transport services for a Hosted Public Service Answering Point (PSAP) solution. This project will result in the consolidation of equipment expenses associated with the existing 113 PSAP locations and result in a significant savings for the State.

Healthcare Network Upgrade

Partnership with Iowa Hospital Association (IHA)

The ICN is working with IHA to replace legacy equipment at 191 locations for a complete network upgrade. This project enhances the redundancy to hospitals and rural clinics, along with increases in bandwidth to enable improved access to specialists and records.

At the end of June 2020, the healthcare network equipment upgrade consisted of 71 sites with equipment installed and 139 pending orders to be completed. With COVID-19 slowing down installations at the healthcare sites, the project is on track to be completed in 2021.

Voice Migration Completed

In November 2019, ICN completed its migration to a Voice over Internet Protocol (VoIP) platform using CenturyLink's Unified Communications (UC) solution. The platform migration included moving over 8,000 phones for 168 authorized customers. The public-private partnership enhanced ICN's ability to provide Voice services to authorized customers located off the Capitol Complex.

This VoIP service migration improved efficiencies and reduced ongoing maintenance costs by eliminating six ICN legacy voice systems. A widely used user feature is call forwarding to an alternate number for mobility. In addition, this VoIP service provides customers encryption to protect sensitive voice information, and includes long distance calling and 800 service at no additional charge. These added components provide a cost savings to our customers.

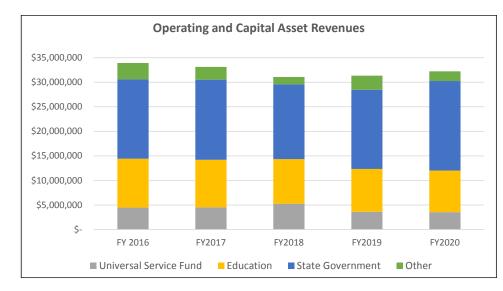
Looking Ahead to Fiscal Year 2021

Virtualization

Software Defined Networking (SDN) and Network Function Virtualization (NFV) separates software from hardware. ICN's virtualization approach will be based on a white-box application, which combines all the traditional data center elements (storage, compute, networking, and management) in a single automated platform. ICN plans to leverage services layered on top of its IP infrastructure to be flexible and adapt to the needs of our customers.

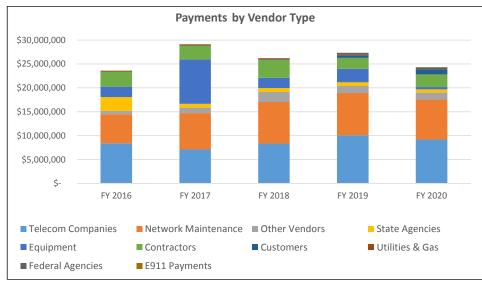
Financial Charts

The "Operating and Capital Asset Revenues" graph shows ICN generated over \$32M in revenues from billed services to authorized users. The ICN did not request or receive appropriated funds from the State for fiscal year 2020.



The "Payments by Vendor Type" graph shows how the revenue generated is used in supporting the network.

The largest ICN expenses in FY20 were the network maintenance and payments to vendor telecommunication companies supplying voice, data transport, and Internet services. Payment for the cost of the "last-mile" connections that are leased from telecommunications companies is directed back to lowa's private sector providers.



Expenses to outside vendors only. Excludes payroll and employee reimbursements.

ICN's financial statements are shown using Generally Accepted Accounting Principles (GAAP). As a government entity in a fee-for-service environment, ICN uses accrual accounting with a measurement focus emphasizing the matching of revenues with costs of services including depreciation of assets such as network equipment and fiber. Most other State of lowa agencies use the modified accrual accounting method with a measurement focus emphasizing control and accountability over the raising and spending of public monies.

Fiscal Year 2020 Financial Information

| | FY 2020 through | | |
|---|-------------------|---------------|---------------------|
| | June 30, 2020 | FY 2021 | |
| REVENUE | Projected Actuals | Budget | Budget Proposal |
| Voice Revenue | \$8,016,525 | \$7,437,345 | \$7,370,030 |
| Video Revenue | 136,973 | 146,391 | - |
| Transport Revenue | 14,400,024 | 14,910,130 | 15,086,412 |
| Internet Revenue | 6,669,952 | 5,398,531 | 6,538,400 |
| Security Revenue | 350,686 | 362,980 | 520,114 |
| Colocation Revenue | 157,577 | 336,912 | 154,636 |
| Outside Plant Build Out/Maintenance Revenue | 1,209,293 | 1,950,847 | 1,853,052 |
| Network Professional Services Revenue | 22,228 | 148,294 | 134,000 |
| Interest Revenue | 173,064 | 152,300 | 153,000 |
| Other Revenue | 20,279 | 8,765 | 12,265 |
| GROSS REVENUES | \$31,156,601 | \$30,852,495 | \$31,821,909 |
| DIRECT EXPENSES | | | |
| Voice Direct Expense | \$5,010,704 | \$4,336,633 | \$5,236,692 |
| Video Direct Expenses | 114,001 | 117,304 | - |
| Transport Expenses | 4,986,251 | 5,693,110 | 5,605,206 |
| Internet Expenses | 489,286 | 411,977 | 560,413 |
| Security Expenses | 307,323 | 368,634 | 335,068 |
| Colocation Expenses | - | 29,228 | - |
| Outside Plant Build Out Expenses | 404,670 | 804,000 | 483,304 |
| Network Professional Services Expenses | 12,534 | 108,095 | 74,050 |
| TOTAL DIRECT EXPENSES | \$11,324,769 | \$11,868,981 | \$12,294,733 |
| GROSS MARGIN | \$19,831,832 | \$18,983,514 | <u>\$19,527,176</u> |
| OPERATING EXPENSES | | | |
| System Maintenance and Technical Support | \$6,484,316 | \$6,998,695 | \$6,164,666 |
| Outside Plant Maintenance Expenses | 2,040,427 | 1,466,016 | 2,222,254 |
| Operating Professional Fees | 341,154 | 509,408 | 218,775 |
| Other Operating Expenses | 579,383 | 756,375 | 560,006 |
| TOTAL OPERATING EXPENSES | \$9,445,280 | \$9,730,494 | \$9,165,701 |
| <u>NET MARGIN</u> | \$10,386,552 | \$9,253,020 | \$10,361,475 |
| GENERAL AND ADMINISTRATIVE | | | |
| Personnel Services | \$9,663,865 | \$9,648,426 | \$9,358,179 |
| Travel | 98,533 | 93,444 | 102,644 |
| Other General & Administrative Expenses | 964,059 | 1,035,228 | 930,392 |
| Professional Fees | 267,699 | 70,200 | 133,340 |
| TOTAL G, S, and A EXPENSES | \$10,994,156 | \$10,847,298 | \$10,524,555 |
| NET CASH (DEFICIT) from OPERATIONS | \$(607,604) | \$(1,594,278) | \$(163,080) |
| CAPITAL BUDGET | | | |
| Capital Expenditures | <u>\$426,779</u> | \$682,914 | \$1,263,000 |
| NET EQUIPMENT PURCHASES | \$426,779 | \$682,914 | \$1,263,000 |
| NET CASH (DEFICIT) | (\$1,034,383) | (\$2,277,192) | (\$1,426,080) |
| | | (1-)/ | (11,1=0,000) |

Operating
Budget
Proposal &
Capital Plan
For Fiscal
Year Ending
June 30, 2021

Fiscal Year 2020 Financial Information

Balance Sheet (Statement of Net Assets) For the Thirteen Months Ending June 30, 2020

| | Increase (Decrease) | | | |
|---|---------------------|------------------|------------------|----------|
| ASSETS | Fiscal Year 2020 | Fiscal Year 2019 | Amount | Percent |
| Cash & Cash Equivalents | \$7,431,911.61 | \$6,439,664.00 | \$992,247.61 | 15.41% |
| Accounts Receivable | 3,876,506.86 | 4,189,264.20 | (312,757.34) | (7.47%) |
| Interest Receivable | 15,192.97 | 43,532.64 | (28,339.67) | (65.10%) |
| Inventory | 1,359,325.18 | 1,483,158.78 | (123,833.60) | (8.35%) |
| Prepaid Expenses | 706,044.66 | 1,082,818.22 | (376,773.56) | (34.80%) |
| TOTAL CURRENT ASSETS | 13,388,981.28 | 13,238,437.84 | 150,543.44 | 1.14% |
| Fixed Assets(Net) | 11,628,304.53 | 14,732,261.06 | (3,103,956.53) | (21.07%) |
| Total Deferred outflows of resources | 1,500,945.18 | 1,902,064.18 | (401,119.00) | (21.09%) |
| TOTAL ASSETS | \$26,518,230.99 | \$29,872,763.08 | (\$3,354,532.09) | (11.23%) |
| | | | | |
| LIABILITIES | | | | |
| Accounts Payable & Accruals | \$3,340,769.86 | \$2,602,206.08 | \$738,563.78 | 28.38% |
| Sick Leave Incentive Program - Retirees | 6,185.00 | 12,372.00 | (6,187.00) | (50.01%) |
| Unearned Revenue | 1,766,265.40 | 2,039,345.68 | (273,080.28) | (13.39%) |
| Short-Term Compensated Absences | 761,803.99 | 900,119.05 | (138,315.06) | (15.37%) |
| Sick Leave Incentive Program - Employees | 101,820.83 | 114,250.91 | (12,430.08) | (10.88%) |
| Other Post-Employment Benefits | 44,858.30 | 882,000.00 | (837,141.70) | (94.91%) |
| TOTAL CURRENT LIABILITIES | 6,021,703.38 | 6,550,293.72 | (528,590.34) | (8.07%) |
| | | | | |
| LT Sick Leave Incentive Program - Retirees | \$21,103.00 | \$17,986.00 | \$3,117.00 | 17.33% |
| Long-Term Compensated Absences | 177,397.48 | 0.00 | 177,397.48 | 0.00% |
| LT Sick Leave Incentive Program - Employees | 575,675.46 | 599,530.10 | (23,854.64) | (3.98%) |
| Accrued Sick Leave | 68,895.93 | 73,482.85 | (4,586.92) | (6.24%) |
| Other Post-Employment Benefits | 822,141.70 | 0.00 | 822,141.70 | 0.00% |
| Net Pension Liabilities | 5,432,060.00 | 6,273,124.00 | (841,064.00) | (13.41%) |
| TOTAL DEFERRED INFLOWS of RESOURCES | 1,268,259.45 | 534,614.41 | 733,645.04 | 137.23% |
| TOTAL LONG-TERM LIABILITIES | 8,365,533.02 | 7,498,737.36 | 866,795.66 | 11.56% |
| TOTAL LIABILITIES | \$14,387,236.40 | \$14,049,031.08 | \$338,205.32 | 2.41% |
| | | | | |
| FUND EQUITY | | | | |
| Retained Earnings | \$12,130,994.59 | \$15,823,732.00 | (\$3,692,737.41) | (23.34%) |
| TOTAL FUND EQUITY | 12,130,994.59 | 15,823,732.00 | (3,692,737.41) | (23.34%) |
| TOTAL LIABILITIES & FUND EQUITY | \$26,518,230.99 | \$29,872,763.08 | (\$3,354,532.09) | (11.23%) |

Fiscal Year 2020 Financial Information

Statement of Changes in Net Position For the Twelve Months Ending June 30, 2020

| | <u>June Fiscal</u> <u>Year 2020</u> | <u>June Fiscal</u> <u>Year 2019</u> | <u>Increase</u> (<u>Decrease)</u> <u>Amount</u> | <u>Increase</u> (<u>Decrease)</u> <u>Percent</u> |
|-----------------------------------|---|---|--|---|
| Operating Revenues | | | | |
| Sales, rents & services | \$32,219,025 | \$31,578,021 | \$641,004 | 2.03% |
| TOTAL OPERATING REVENUES | \$32,219,025 | \$31,578,021 | \$641,004 | 2.03% |
| | | | | |
| Operating Expenses | | | | |
| General & Administrative | \$10,843,183 | \$10,898,528 | (55,344) | (0.51%) |
| Depreciation | \$3,155,516 | \$3,363,278 | (207,762) | (6.18%) |
| Direct | \$14,217,063 | \$12,896,300 | 1,320,763 | 10.24% |
| Operations | \$7,808,506 | \$10,648,458 | (2,839,952) | (26.67%) |
| TOTAL OPERATING EXPENSES | <u>\$36,024,268</u> | <u>\$37,806,565</u> | (1,782,296) | (4.71%) |
| OPERATING INCOME/(LOSS) | (\$3,805,244) | (\$6,228,544) | 2,423,300 | (38.91%) |
| | | | | |
| Non-Operating Revenues (Expenses) | | | | |
| Interest Income | \$112,506 | \$172,760 | 60,254 | (34.88%) |
| NET NON-OPERATING REVENUES | \$112,506 | \$172,760 | 60,254 | (34.88%) |
| INCOME/(LOSS) BEFORE | | | | |
| CONTRIBUTIONS & TRANSFERS | (\$3,692,737) | (\$6,055,784) | \$2,363,047 | (39.02%) |
| Transfers Out | (, , , , , , , , , , , , , , , , , , , | <u>, , , , , , , , , , , , , , , , , , , </u> | | |
| CHANGE IN NET POSITION | (\$3,692,737) | (\$6,055,784) | \$2,363,047 | (39.02%) |
| | (1 , , , , , , , , , , , , , , , , , , , | (2 , , , , , , , , , , , , , , , , , , , | | |
| NET POSITION - JULY 1 | \$15,823,732 | \$21,879,516 | <u>(\$6,055,784)</u> | (27.68%) |
| NET POSITION - JUNE 30 | \$12,130,995 | \$15,823,732 | (\$3,692,737) | (23.34%) |

This report is used as an internal cash management tool and is not based on full accrual accounting. It includes only revenues from operating activities plus some revenue from non-operating activities that are deposited in operating cash such as interest income. It does not contain any non-cash expenses such as depreciation. All revenues and expenses from appropriated monies and grant awards have been excluded.

Fiscal Year 2020 Annual Report



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icn.iowa.gov









