



Information Technology Manager's Report

Organization, Personnel and Technology
Committee
Item 7b
January 11, 2021

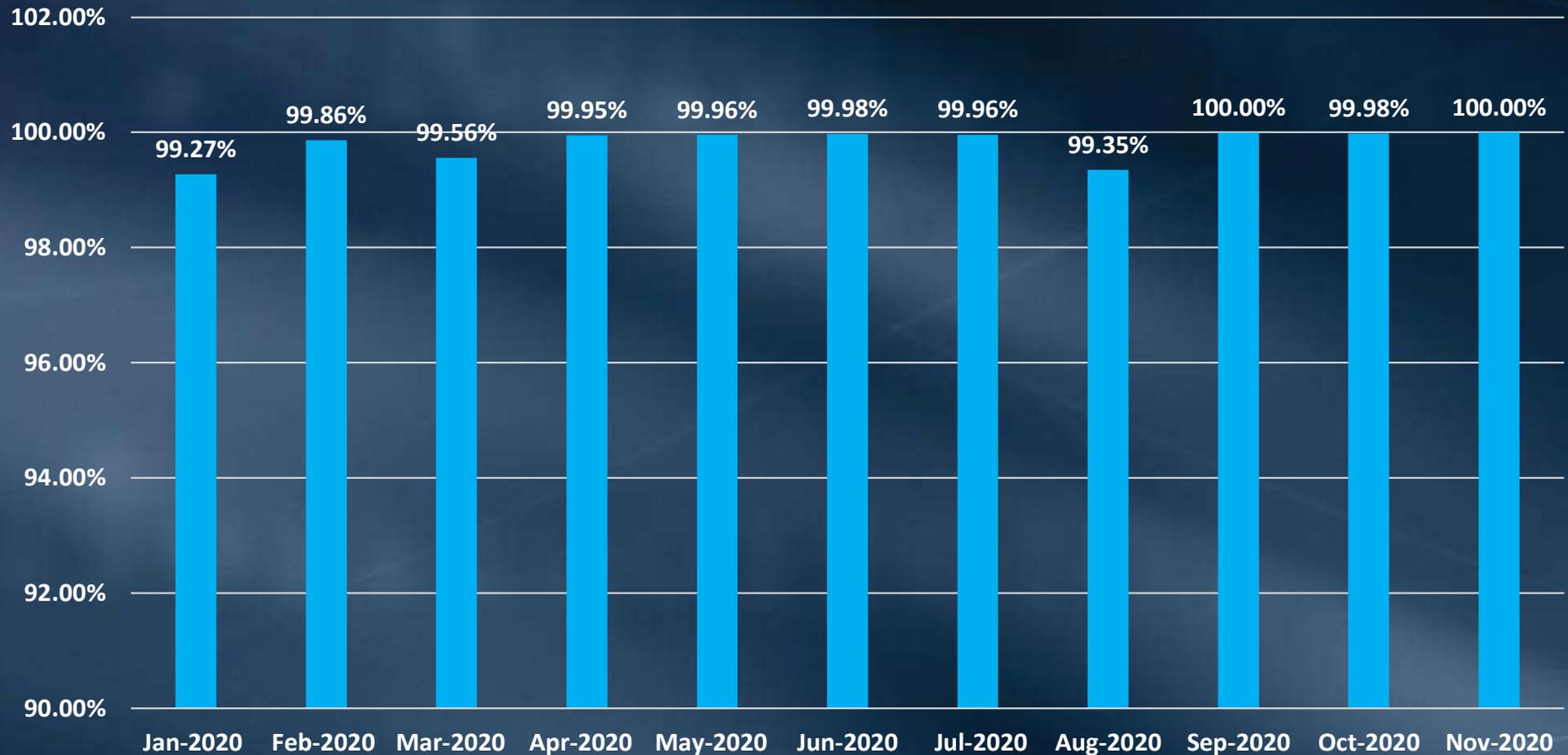
Information Technology

- **Data centers** with over 700 servers (physical & virtual) that provide processing and backup for over 200 applications and 700 terabytes of data storage
- **Network infrastructure** supporting the enterprise (Business and SCADA) comprised of 29 primary sites, 73 microwave sites, and multiple internet paths enabling communication of 25,000 computer devices and 50 terabytes of traffic daily
- **Communications (VoIP)** enabling 1.7 million phone calls and 688,000 voicemail messages annually
- **Cybersecurity** providing monitoring, detection and alerting of data disclosure or alteration and prevention of unauthorized system access across Metropolitan's service area
- **Enterprise Business and Water Operations** applications supporting day-to-day business and water systems operations
- **IT Service Desk** servicing over 2,400 computers and resolution of 2,000 tickets monthly



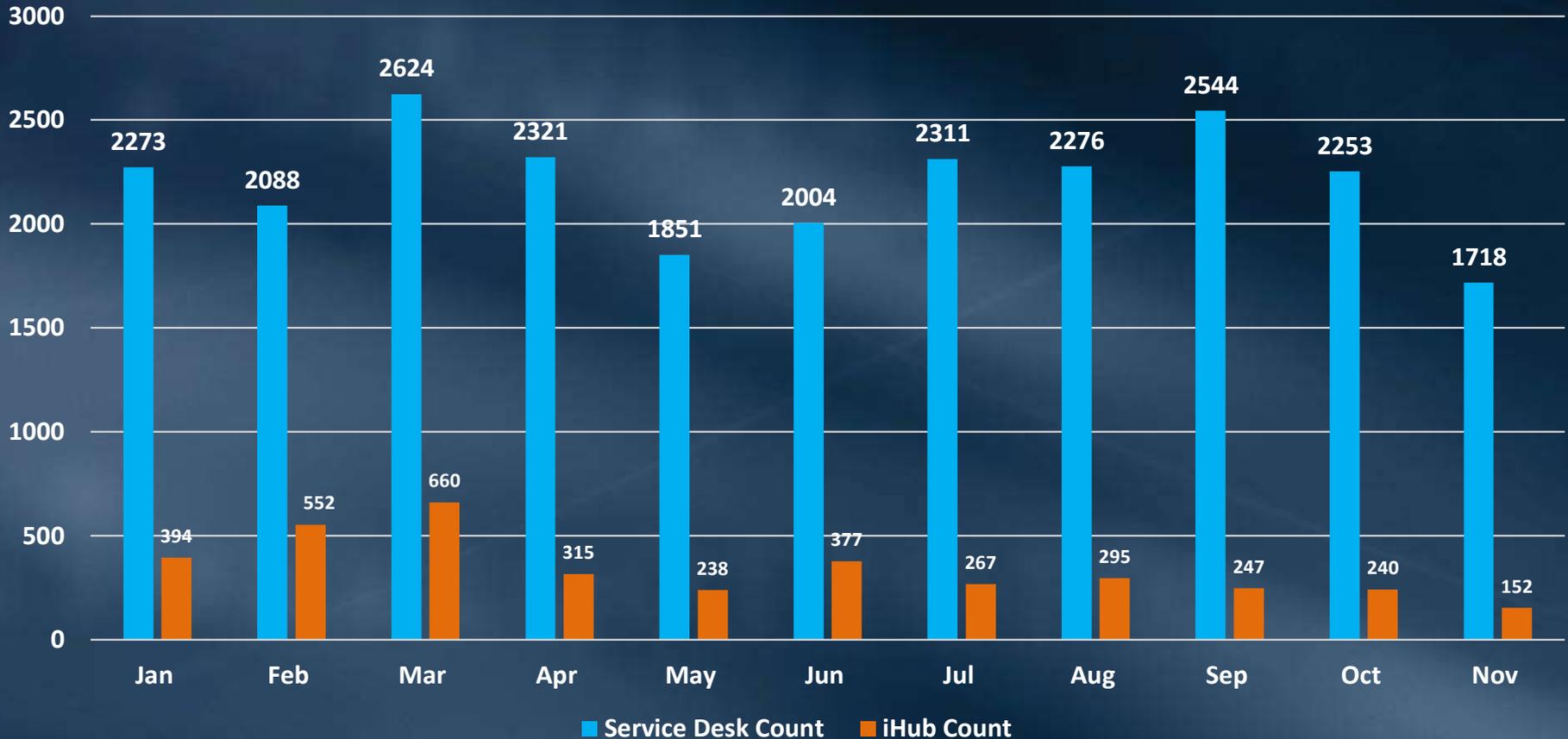
2020 Annual Ops Data

Monthly Enterprise Systems Up Time for 2020



2020 Annual Ops Data

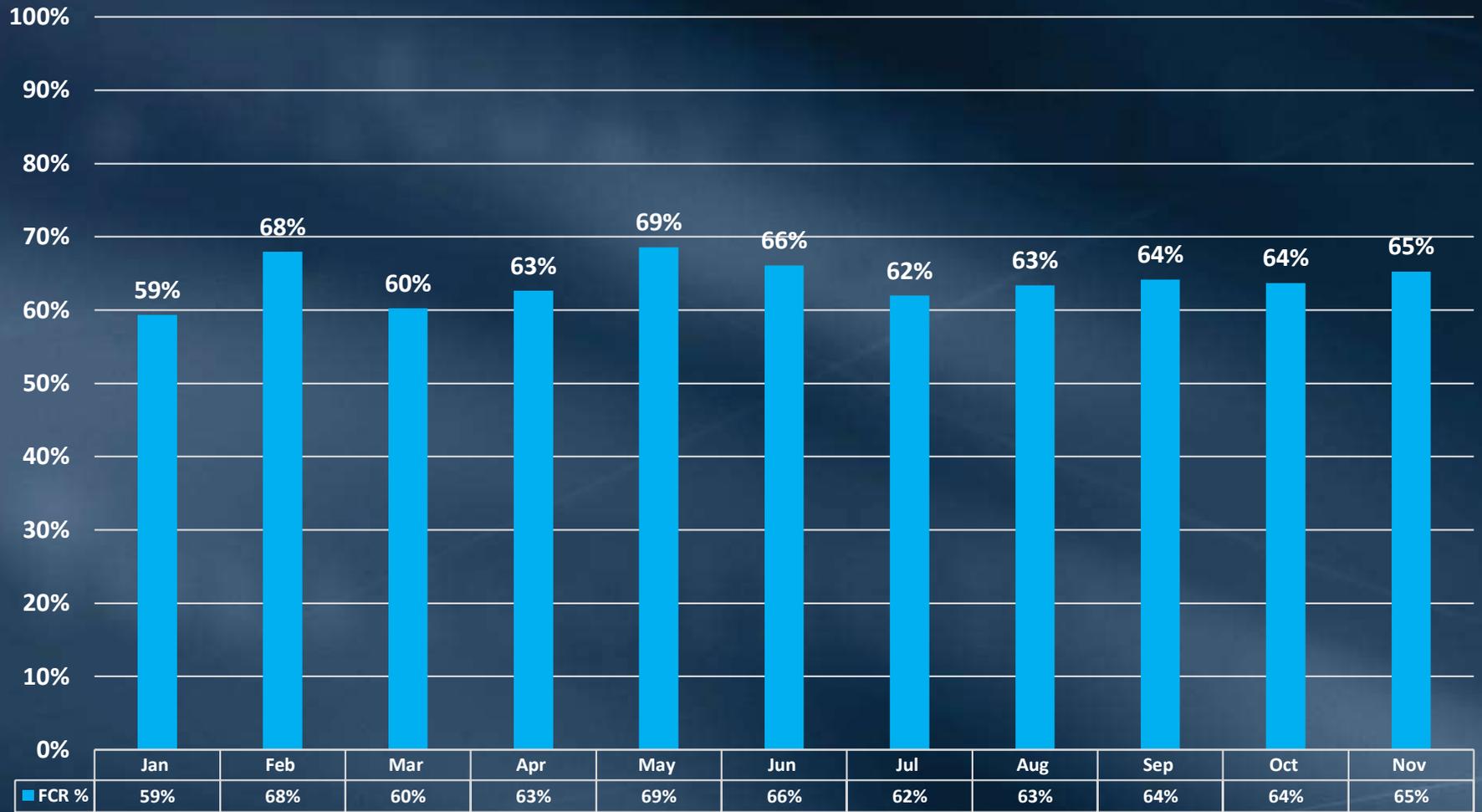
Service Desk & iHub Ticket Count By Month for 2020



Total Annual Tickets: Service Desk = 24,263 iHub = 3,737

2020 Annual Ops Data

Service Desk First Call Resolution by Month for 2020



IT Support for Telecommuting

- Increased Virtual Private Network (VPN) licensing
 - 800+ daily usage
 - Upgraded fail-over capacity for uninterrupted access to network and applications
- Built remote terminal servers
 - Allows for network access from non-MWD computer
 - 100+ daily usage
 - Multi-factor authentication security

IT Support for Telecommuting

- Acquired enterprise Zoom licensing
 - Developed security protocols for usage
- Purchased additional laptops
 - 350+ laptops deployed
 - “No contact” pickup
 - Multi-factor authentication security
- Supported Board and Committee Meetings
- Supported GM Town Hall Meetings

Major Accomplishments – Enterprise Business Systems

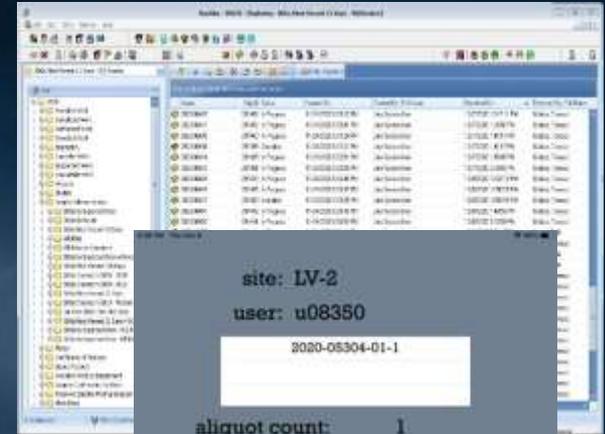
- Migrated myHR/PeopleSoft to Oracle Cloud, our first Enterprise application in the cloud
- Implemented the Families First Coronavirus Response Act regulatory changes to myHR and WorkTech time entry
- Implemented a new Energy Scheduling System to meet regulatory requirements of reporting hourly estimates of MWD energy production at our 16 hydroelectric power plants to the public utility commission
- Successfully migrated over 130 SharePoint Workflows to Power Automate after Microsoft deprecated them with short notice

Major Accomplishments – Enterprise Business Systems

- Implemented an Off-boarding application to streamline the Employee separation process
- Implemented Interim Enhanced Surface Water Treatment Rule Dashboard to quickly view parts of compliance that need to be investigated for all treatment plants
- Implemented Rideshare Data Mart/Dashboard to automate data extraction from different sources and generation of reports for various costs and subsidies
- As part of Project Controls Reporting System project, made significant changes to E-Business suite, myHR, WorkTech and supported integration with Primavera and Cognos

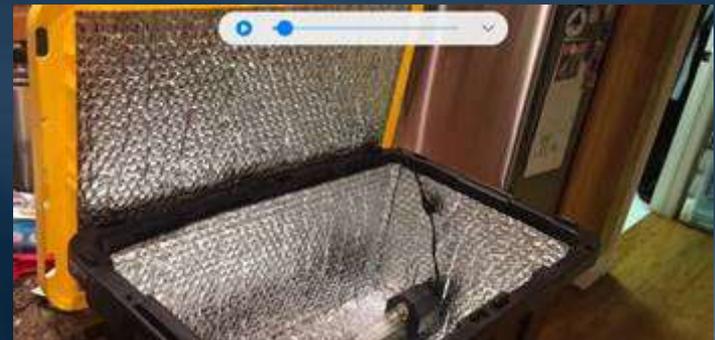
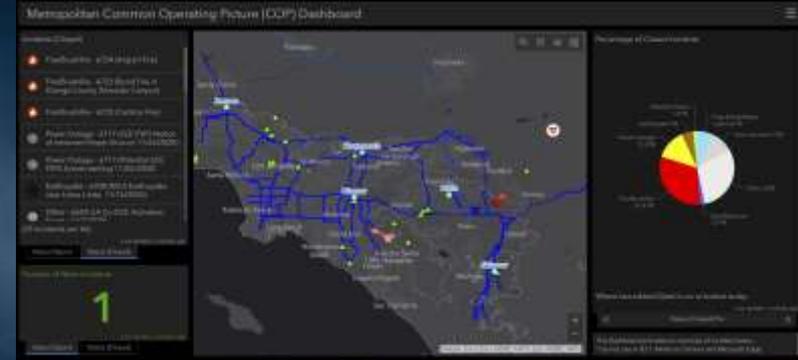
Major Accomplishments – Enterprise Water Systems

- Implemented LIMS remote access from home during the pandemic
- Developed WQ iOS Water Sampling Collection Mobile Application
- Completed Wadsworth Control and Protection System upgrade



Major Accomplishments – Enterprise Water Systems

- Deployed Emergency Operations Common Operating Picture GIS Mapping Application & Dashboard
- Designed & built low-cost UV disinfecting light boxes in response to COVID-19



Major Accomplishments - Infrastructure

- Enhanced Major Incident Management and On-Call Management Process
 - This process is using PagerDuty for incident reporting, alerting, tracking and root cause analysis
- Cloud Initiatives
 - Migrated MyHR (Peoplesoft) to Oracle Cloud Infrastructure
 - Migrated 15+ Servers / Applications to Microsoft Azure Gov Infrastructure
 - In the process of migrating 20+ Servers / Applications to Microsoft Azure Commercial Infrastructure
 - Exchange (Email Server) – In the process of migrating from On-Prem to Exchange Online
- Technical Upgrades
 - Performed Database, Server and Applications upgrades
 - SQL Servers, Oracle DB's, EBS SSL Certs, Tax upgrades, Maximo Upgrade and BDMS

Major Accomplishments - Infrastructure

● Drone (UAV) Program

- Conducted 39 missions, edited & delivered 40+ videos
 - **Solar Farm Thermal Assessments** - Developed an ArcGIS WebApp that shows thermal assessment map of the Jensen Solar Farm
 - **Multi-spectral Imagery Assessments of Dams and Reservoirs** – To detect possible seepage near our dams and reservoirs

● Service Improvements

- Added Cloud based communication system (RingCentral) at Eagle Rock – Operations Control Center
- Transitioned Board and Committee meetings to Zoom online meeting platform, incorporating Granicus streaming and public comment via teleconference
- Continued implementation of new IT Service Management Tool “ServiceNow”

In-Flight Initiatives – PMO

Project Name	
1	Datacenter Modernization
2	SharePoint 2010 Workflow conversion project
3	PC Replacement Project
4	Data Center Backup Infrastructure Upgrade
5	Exchange O365
6	Multi-Factor Authentication (YubiKey)
7	IT Disaster Recover Upgrade
8	myHR - Tax Update, year-end tasks
9	Budget System Replacement System
10	Maximo Upgrade
11	Wi-Fi Upgrade
12	MWD Headquarters Boardroom Technology Upgrade
13	Information Technology Service Management System
14	Security Operations Center – End Point Protection
15	Control System Upgrade Phases 1 to 3
16	Oracle 11g Database Upgrade
17	Eform Conversion Project
18	Applications-Servers Upgrade from Old Windows OS
19	P-Card implementation
20	My Warehouse
21	Asset Monitoring and Management System
22	Desert Microwave Tower Site Upgrades (Phase 1 of 2)
23	Incident Reporting
24	Check Printing Software Upgrade
25	Real Property Group Business System Replacement
26	Cognos Security Model
27	Fuel Management System Upgrade
28	Migrate Oracle Apps to OCI
29	VDI - GIS & WIN 7 Legacy Applications
30	MWDH2o.com Redesign
31	Emergency Radio Communications System Upgrade
32	Azure Commercial Migration

In-Flight Initiatives – PMO

Project Name	
33	AMR System RTUs and Radio Modem Upgrade (Phase 1 of 2)
34	AP Imaging Enhancements
35	ArchivEra (new software implementation) by Admin. Services
36	BDMS Upgrade - Board Letters Archive
37	Coresite Data Center - BD Network move
38	Digital Asset Optimization
39	Enterprise Content Management Phase II
40	Enterprise Data Analytics
41	Office 365 (additional Teams functionality, Stream)
42	OMC / OEM 13c Upgrade / Migration
44	ProjectWise - Good Sync
45	Security Operations Center - (Multiple)
46	WINS Water Billing System Upgrade
47	LIMS Upgrade and Reconfiguration, TNI Implementation
48	Windows 10 Build 1909 Upgrade Development and Deployment
49	Hydraulic Modeling Analysis Toolkit and Water Quality Calibration
50	Maximo Mobile Computing Upgrade
51	OC-88 Pump Station PLC Upgrade
52	Payment Process Improvement Project
53	Shop Management System Project

