

# IOT Data Center Services - 2018

## Who We Are:

A 17-member team managing statewide virtual server hosting, virtual networks/firewalls, SAN storage and data protection infrastructure.

## Our Mission:

Maintain and maximize underlying infrastructure and hosting environments, providing highly available enterprise services.

## Department:

493022

## Manager:

Mitch Baker

## What We Do:

The team supports approximately 3,300 virtual servers including petabytes of storage, backups and archives. This includes providing the core resources (rack space, virtualization components, SAN and Data Protection storage capacity, performance and services) required to maintain a highly available environment in multiple data centers.

## Our Products:

1020	Citrix
1052	Virtual Server Hosting
1052A	Virtual Server Hosting (Extra CPU)
1052B	Virtual Server Hosting (Extra GB RAM)
1177A	Tier 1 SAN Storage
1177F	105203 Additional Gig SAN
1177E	Private Cloud Storage
1177H	Isilon Shared & Home Drives Overage - perGB

## Our Tools:

Citrix	Application presentation
vCenter System Mgr	VMware vSphere management of ESXi Hosts (VM Hosts) & VMs
vRealize Ops Mgr	VMware vSphere monitoring and mgt for vSphere environments (ESXi Hosts, Virtual Machines, vSphere Datastores, Virtual Networking)
vRealize Automation	Automate virtual machine deployment and virtual network configurations
NSX	Virtual network management and security (firewall) access controls
vRNI	Virtual object to virtual or physical network traffic flow analysis
Log Insight	Universal logging aggregator and forwarder.
EMC Unisphere	Management and monitoring of Pure Storage SAN arrays
Pure 1	Management and monitoring of Pure Storage SAN arrays
XtremIO System Mgr	Management of XtremIO Storage

## Our Metrics:

Mon-Fri 6am-6pm excluding state holidays

Resolve customer issues within 40 IOT business hours 90%+ G; 87%+ Y; <87% R

Server and Storage Availability: 99.9% + G; 96.9%+ Y; <96.9% R

## Our Customers:

Executive Branch, Judicial Branch and Secretary of State.

## Our Budget:

\$15 million (Citrix: 0.5m; Virtual Server Hosting: 2.3m; Storage 7.7m)

## Our Growth:

VM hosting virtual server counts: 2011 = 1,000 2018 = 3,300

SAN and Isilon Storage (GB): 2007 = 80,242 2018 = 1,203,861

Data Protection/Backups (GB): 2007 = 209,311 2018 = 1,528,437 (Data Protection Recoverable: 36,244,979)

## Recent Major Accomplishments:

- Upgraded vCenter to vSphere 6.5
- Deployed VMAX 3 all flash arrays in multiple datacenters
- Deployed Avamar and migrated Data Protection
- Deployed ECS as private cloud storage and data protection target tier
- Upgraded and expanded Isilon pacing growth
- Upgraded and expanded Data Domain targets for Data Protection/backups
- Implemented vRA for automated server deployments and catalog services
- Multiple NSX implementations for segmentation and role based access controls
- Deployed Log Insight for universal log aggregation

## Current Projects:

- Migrate, augment and forward logs to/from Log Insight
- Migrate physical servers to VMAX 3 arrays
- Enhance deliverables of vRA catalog

- Create additional Horizon View virtual desktop environments.
- Implementation of hyper-converged systems for additional Horizon View virtual desktop environments.