IT Infrastructure Division Presentation
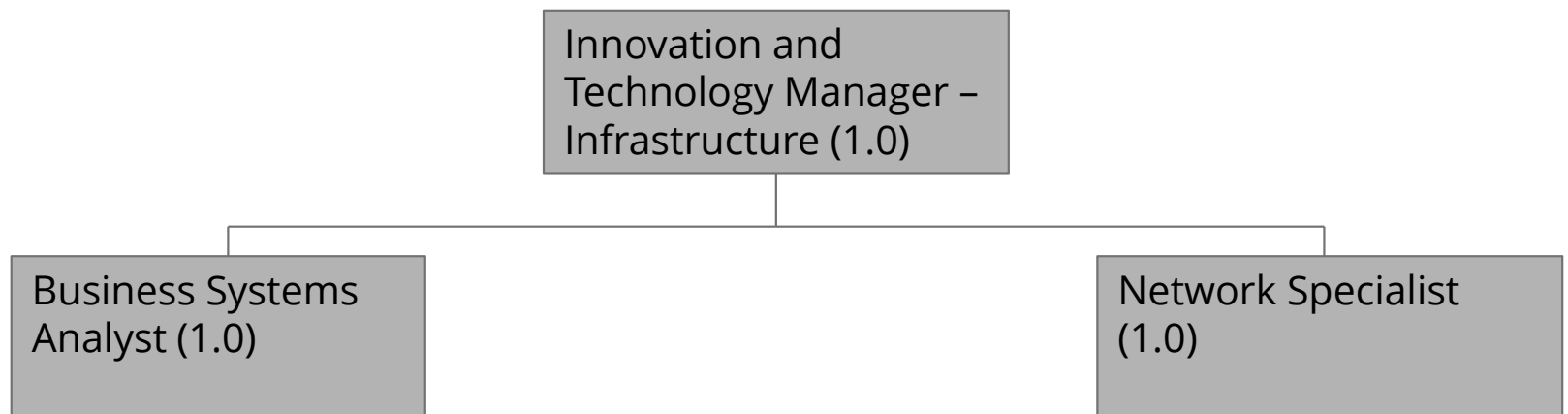
Overview

CUPERTINO

Infrastructure Team

Infrastructure Division: This division provides for all technology-related support for the citywide management of information technology services.

```
                    ┌─────────────────────────┐
                    │ Innovation and          │
                    │ Technology Manager –    │
                    │ Infrastructure (1.0)    │
                    └─────────────────────────┘
           ┌──────────────────┴──────────────────┐
┌──────────────────────┐              ┌──────────────────────┐
│ Business Systems     │              │ Network Specialist   │
│ Analyst (1.0)        │              │ (1.0)                │
└──────────────────────┘              └──────────────────────┘
```

Infrastructure Team

| Toan Quach Network Specialist	Quinton Adams Business Systems Analyst	Tommy Yu Infrastructure Manager
• System admin • Network admin • Security admin • E-mail / PRA • Phone System • Helpdesk • Laptop / Hardware • Wi-Fi / Cameras • Cabling / Setup	• Sr System admin • Network engineer • Security engineer • Servers/backups • Firewall / Network design	• Project Management • Budget / Procurement • Staff supervision • Sr System admin • Network admin • Security admin • Policies / Compliance

Infrastructure Team in action

Tommy Yu
Infrastructure Manager, City of Cupertino

QUINTON ADAMS
BUSINESS SYSTEMS ANALYST
INNOVATION AND TECHNOLOGY
DEPARTMENT
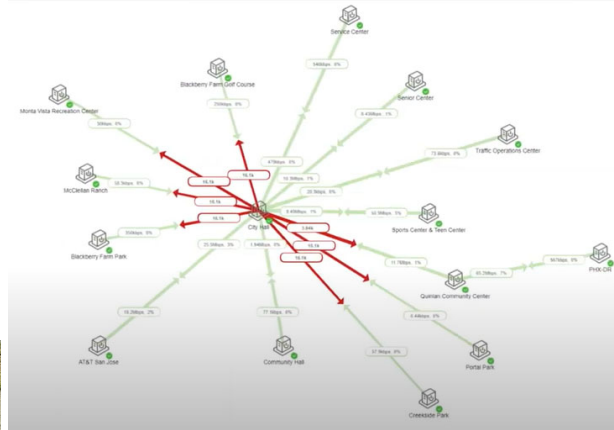
Infrastructure Core Offerings

Helpdesk & Customer Service

System & Network administration

Security

Business Continuity

Helpdesk & Customer Service

On/offboarding of employees, equipment and account setup/retrieval

Front-line support, respond to helpdesk tickets; on-call after hours

Inventory control, tech refresh of laptops and accessories

Moves/Adds/Changes; installs, relocations, upgrades

Phone system support: hunt groups, call routing

Helpdesk

- ❖ 2,100 Infrastructure tickets closed (1/1/23 – 10/24/23)

- ❖ Average ~250 tickets/month

Tickets Closed

Year	Tickets Closed
2020	2417
2021	3877
2022	3407
2023	2100
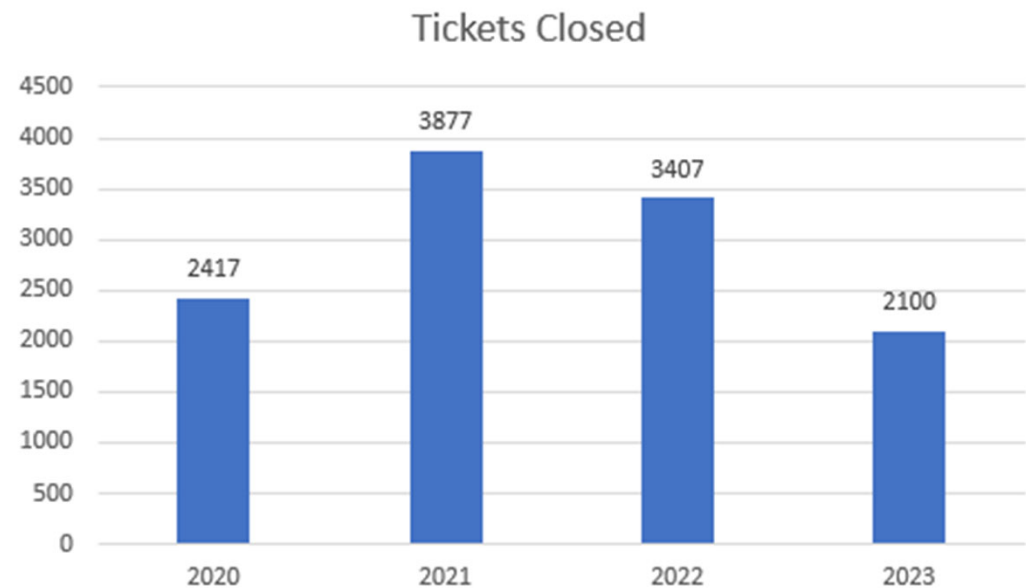
System & Network administration

- E-mail accounts, network monitoring/alerts; manage Wi-Fi for staff and guests at City Facilities

- LAN – Firewalls, servers (Active Directory, file/print servers, SQL database etc.)

- Wide Area Network – Internet and connectivity to sites

- Virtual Private Network (VPN) – Support telework and remote access

- Backup and recovery of critical data/systems

Inventory at a glance

- Equipment and services at 14 locations
- Over 1,600+ pieces of equipment supported

Security

- Endpoint protection – Antivirus/Malware/Spyware; Firewalls

- Managed Detection & Response / 24x7 Security Operations Center - logs

- Artificial Intelligence driven Network traffic analysis

- Ongoing Phishing campaign and security training

- Multi-factor authentication / Mobile Device Management

Business Continuity

- Incident response (breach, outage, ransomware)

- Disaster recovery (DR site, get services back online)

- Redundancy

- Policies, plans, and procedures

- Cyber Resilience: Tabletop exercises – Simulated incidents

Classes & Certifications

❖ Certified Government Chief Information Officer (CGCIO)

❖ Public Sector Leadership Academy

❖ Staff undergoes continuous training on the latest technologies

Resources and Best Practices

- ❖ Municipal Information Systems Association of California (MISAC)
- ❖ Cybersecurity and Infrastructure Security Agency (CISA)
- ❖ Multi-State Information Sharing and Analysis Center (MS-ISAC)
- ❖ National Institute of Standards and Technology (NIST)
- ❖ National California Regional Intelligence Center (NCRIC)
- ❖ Industry publications, blogs, news sources

Project accomplishments

- ❖ Transition to remote workforce / telework
- ❖ Deployed Public Wi-Fi at Wilson Park, Creekside Park, and Portal Park
- ❖ Traffic Operations Center / adaptive traffic project
- ❖ Installed security cameras at City Hall, Quinlan, Blackberry Farm/Golf, Senior Center, Service Center and Sports Center
- ❖ Quinlan BEAM interactive Augmented Reality system
- ❖ Cybersecurity Public Education & Science Fair event
- ❖ Rolled out Cupertino.gov e-mail address

Upcoming Projects 2023-2024

- ❖ Datacenter Tech refresh (server and storage environment)
- ❖ Air-gapped backup solution
- ❖ Network & Physical Penetration test
- ❖ Planning for future cybersecurity exercises
- ❖ Security cameras at McClellan, Quinlan, and Senior Center

Q&A