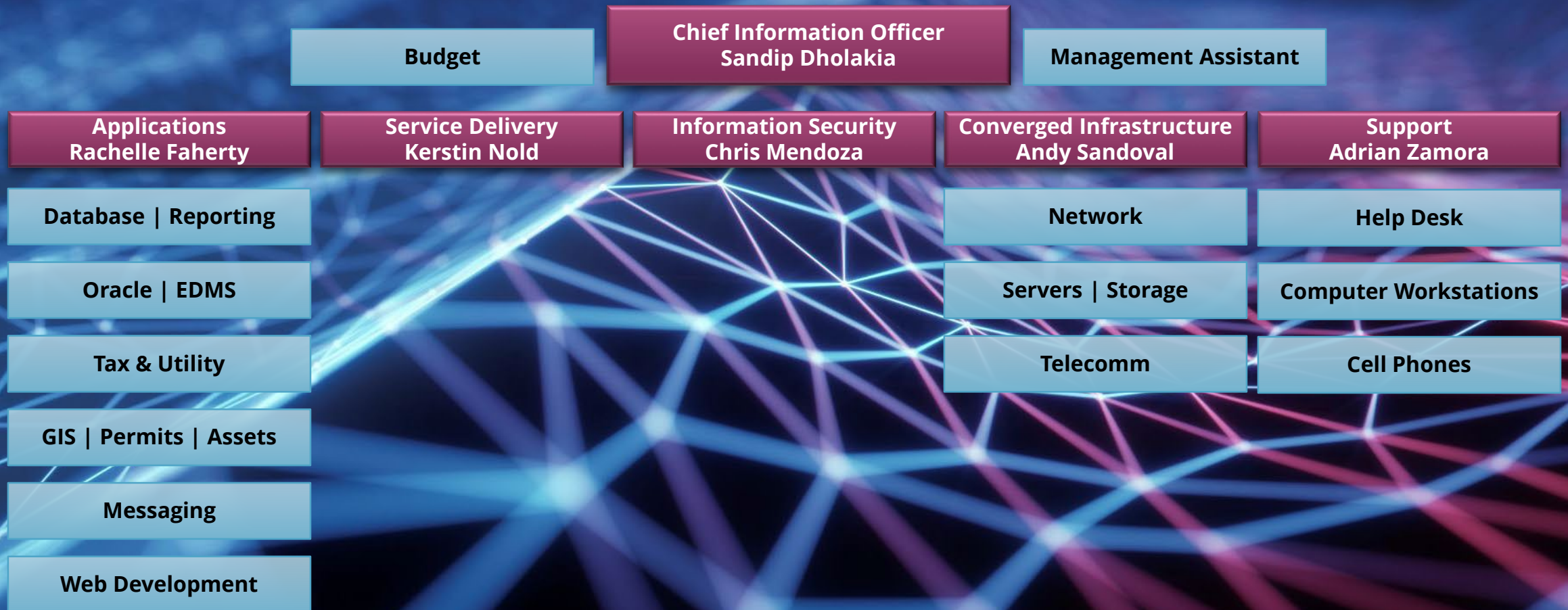# Information Technology Bond Subcommittee

September 2020, Chief Information Officer: Sandip Dholakia

CHANDLER arizona

Overview

- Introduction
- Mission
- Core Focus Areas
- Partners | Affiliations
- Overview of Projects
- Smart City Initiatives
- Summary of Needs
- Fiber Master Plan
- Questions

Information Technology Org. Chart

Budget

**Chief Information Officer
Sandip Dholakia**

Management Assistant

Applications Rachelle Faherty	Service Delivery Kerstin Nold	Information Security Chris Mendoza	Converged Infrastructure Andy Sandoval	Support Adrian Zamora
Database | Reporting			Network	Help Desk
Oracle | EDMS			Servers | Storage	Computer Workstations
Tax & Utility			Telecomm	Cell Phones
GIS | Permits | Assets				
Messaging				
Web Development				

Mission

Mission
Protect, advance and optimize the City's capabilities and effectiveness through innovation

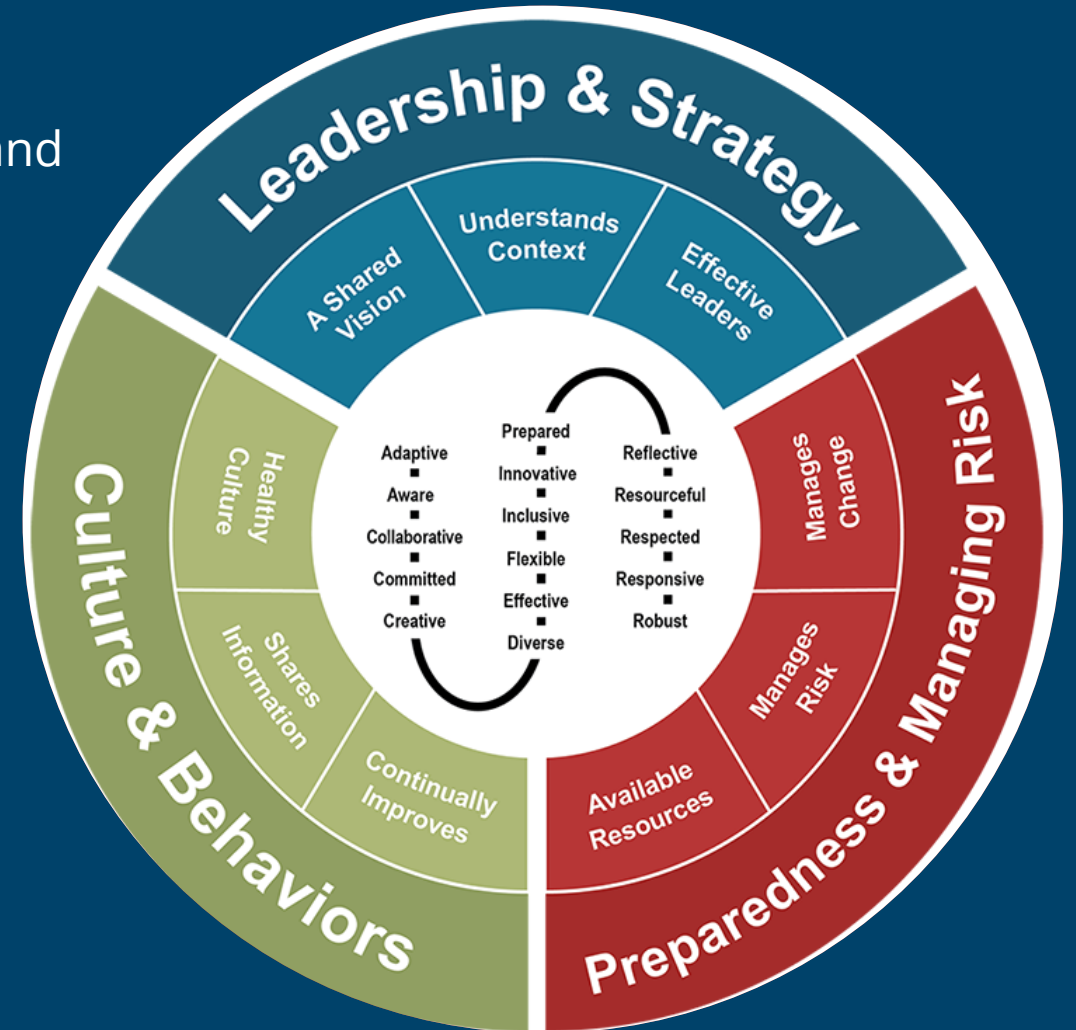## Pillars of Strength

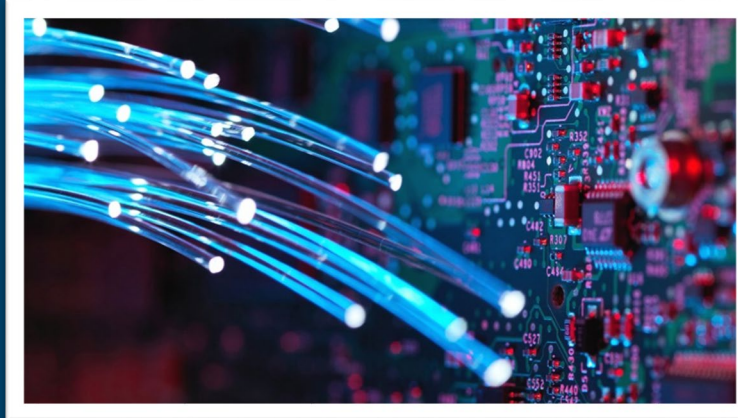Customer Service

Smart City Innovation

Manage Risk

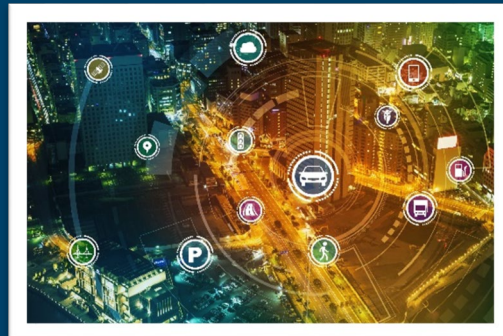Fiscal Prudence

Core Focus Areas

Technology Framework

Resilience

Methodologies/Process

Information Security

Smart City

GIS

Data Aggregation

Collaboration

Mobility

Partner | Affiliations

- Accela
- Active Net
- Advanced Utilities
- Aerial Consortium
- American Telephone
- AOC
- Aspen
- AZCIO
- AZ Digital Government Summit
- AZ Regional Support
- CDWG
- CE Wilson & Associates
- Central Square
- CISCO
- Computer Aid Inc.
- Dell
- Enterprise Network Solutions (ENS)
- ESRI
- F5
- Hye Tech
- IBM
- Insight Global

- Intellitime
- IntraEdge
- Invoice Cloud
- kForce
- MAG
- Microsoft
- Milestone
- Mythics
- nCourt
- NEC
- NeoGov
- NetApp
- Neudesic
- NJB Soft
- Noetix
- NTT
- NutanixOpenText
- OSPInsight
- Oracle
- Palo Alto
- Pluralsight
- Premise One

- Progress
- Proofpoint
- Redhat
- RiskMaster
- SABA
- Selectron
- Sentinel Technologies
- SHI
- Slack
- SMART Cities Region
- Solarwinds
- Technology Integrators
- Teltec
- The Connective
- Ungerboeck
- Varonis
- Vcore
- Vertisystem
- VMWare
- Workgroup Connections
- WorldWide Technologies (WWT)
- Yardi

Overview of Projects

Citywide Projects
- CIP
- Enterprise
- Department

Operations & Maintenance
- Patches
- Upgrades
- Optimization

Research & Development
- Benchmark
- Pilot Initiatives
- Analysis

**Mandates**
- Legal
- Audit
- Oversight

Business Cycles
- Cyclical

Overview of Projects

Citywide Projects

- Citywide Camera Assessment
- Conference Room Upgrades
- City Wide Technology Infrastructure
- Desktop Phone Replacement (VOIP)
- Desktop to Laptop Refresh
- Electronic Signature
- Fiber Network Assessment
- Infrastructure Monitoring System
- Microsoft O365
- Microsoft (SQL) Server Upgrade
- Multi-Factor Authentication
- Oracle Upgrade
- Performance Management
- Redundant Internet Connectivity
- Server Upgrades
- Talent Management
- WI-FI Access Points

Information Security: 5%

Productivity 23%

Infrastructure 22%

Citizen Experience 50%
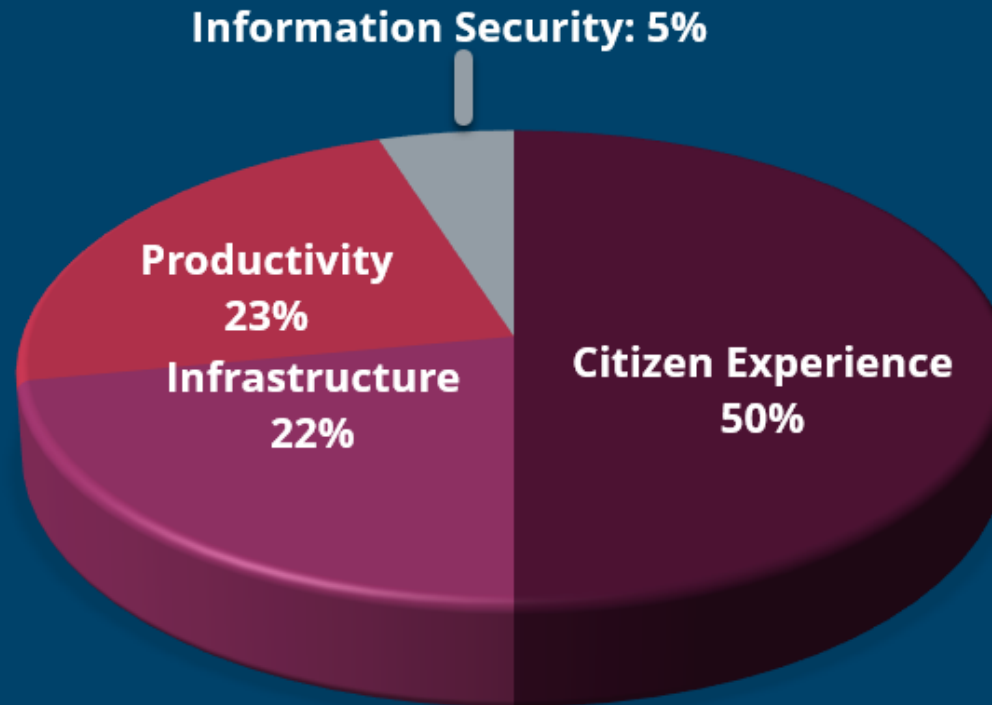
Department Specific Projects

- Business License Administration & Application
- Call Center Enhancements
- Central Cashiering
- Citywide Performance Dashboards
- Code Enforcement Case Management
- Council Presentation Software
- Document Retention/Public Access
- Electronic Agenda Management
- Electronic Document Management
- Fire Records Management System
- Fleet Management System
- IVR Text Messaging
- Laboratory Information Management System
- SAMS (*Water Compliance*): Migration to Cloud
- Utility Billing Re-platform
- WebEx

Projects Underway

Fleet Management System

Fleet Managers
Acquisition through Disposal

MAINTENANCE MANAGERS
Maintenance and labor tracking based on work order process flow

Business Analyst
Business intelligence that Extend beyond standard reports

INVENTORY MANAGEMENT
Entire procurement process from order and receipt through issues.

FUEL MANAGEMENT
Collect and store fuel transactions by automated, electronic upload or, if you chose, manual update.

ACCOUNTING
Tracking all costs

Business Registration

Business Registration
Register a New Business

Office 365

Fiber Assessment

Smart City Initiatives

- Connectivity
- Data Aggregation
- Information Security
- Mobility – Deploying over 1,400 Laptops in FY20
- Public Access Kiosk – Deployed Kiosks for Courts
- Smart Parking

Summary of Needs

Infrastructure

Security + **Resiliency** + **WiFi Bandwidth** + **Connectivity Fiber Optics** = **Service Delivery**

Confidentiality	Continuity	Engagement	Redundancy	Effective
Integrity	Stability	Productivity	Replacement	Quality
Availability	Efficiency	Accessibility	Reliability	Timely

Technology Needs

Support, $250,000, 8%
- ➢ Asset Management
- ➢ Patch Management

Infrastructure $2,046,957, 62%
- ➢ Cooling
- ➢ Data Center Upgrade
- ➢ EOC Network Upgrade
- ➢ Power
- ➢ Power Management
- ➢ Redundancy
- ➢ Connectivity

Security $1,000,000, 30%
- ➢ End Point
- ➢ Encryption
- ➢ Incident Management
- ➢ Monitoring
- ➢ Multi-Factor Authentication
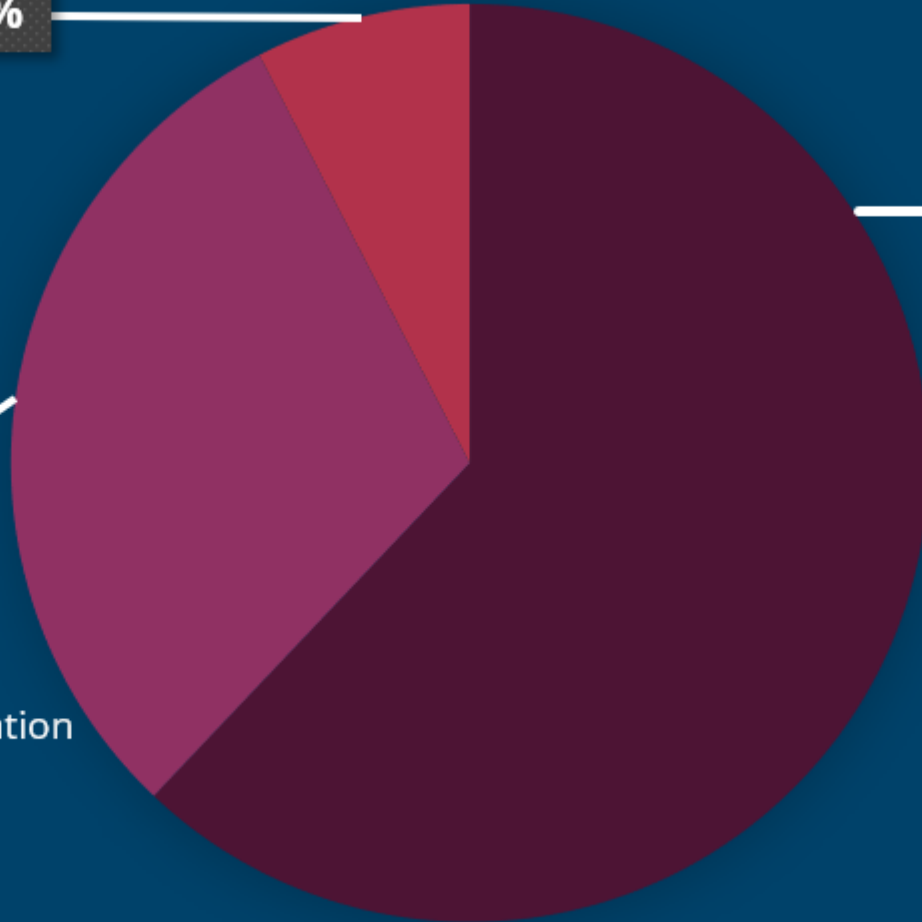
Fiber Master Plan

Project Description:

➢ The Citywide Fiber Project is instrumental to assess the City's current state, strategic fiber usage, expected growth and long-term replacement cycles resulting in the development of a 10 year Master plan with governance policies

Project Goals:

➢ Complete Current State Condition Assessment ("As-Is")
➢ Identify and prioritize Fiber Risks and develop a Fiber Risk Mitigation plan (Continuous Improvements)
➢ Establish a Strategic Fiber Master plan ("Future State")
➢ Define a fiber governance management plan to support the Fiber Master plan (Standards, Support and Maintenance)

Fiber Master Plan

Strategic Goals:
- Involve ALL stakeholders throughout project
- Comprehensive inventory of Citywide Fiber assets
- Fiber network that is accessible to all City sites present and future
- Desired level of redundancy and/or diverse path planning is achieved
- Centralized and documented processes for operations and maintenance

Performance Metrics:
- Clear and complete Master Plan and Implementation Plan with 100% stakeholder participation
- Number/Percentage of City Fiber assets that were inventoried/assessed
- 100% accurate data loaded into OSP database and the processes needed to maintain it
- City standards, details and specifications to be included in horizontal and vertical project plans
- Master Plan that reflects documented processes, projects and activities that can be incorporated into CIP project delivery and delivered on using governance structure

Fiber Master Plan

Fiber Assessment Goals achieved:

- Updates to the OSP database using Physical Fiber Network Audits with independent field verification
- 4,800 LIU port "dark fiber" test including Traffic Signals & Transit Stops identified in the Gap analysis
- 216 Traffic Signal Cabinet LIU locations audited with updated maps in cooperation with TMC staff
- 227 Fiber Splice Points assessed & updated for GPS coordinates, Splice type, photos & conduit/cable info
- 100 Internal SP audits to determine the actual fiber condition and splice path for a more accurate record
- Inventory and Audit Reports generated using Citywide resources (e.g.: CIP, PD, TMC, IT, Valley Metro etc...)
- Identified 6 serious existing fiber splice point concerns assessed and remediated without further incident

Needs Assessment goals achieved:

- (7) Master Planning workshops held with surrounding City, County and State participation
- Strengths, Weakness, Opportunities, and Threats (SWOT) and RACI analysis to evaluate existing vs future network and resource needs
- Fiber asset assessment, Needs Assessment , Gap Analysis, and Risk Management Reports that includes security, reliability, and sustainability requirements

Questions & Next Steps