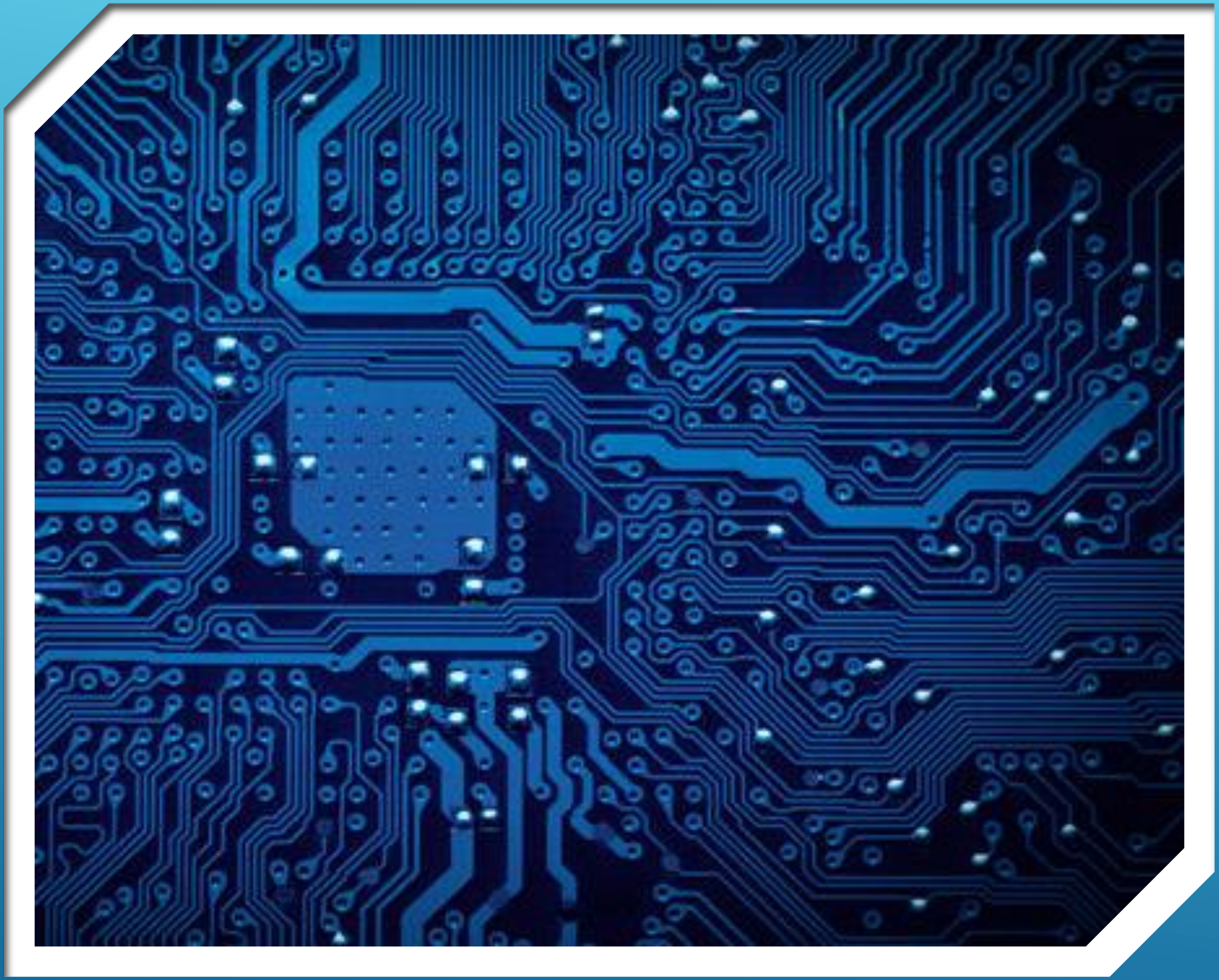

TECHNOLOGY SERVICES ORGANIZATION PART I: ENTERPRISE IT

- Jarrod Borek
- Manuel Gomez

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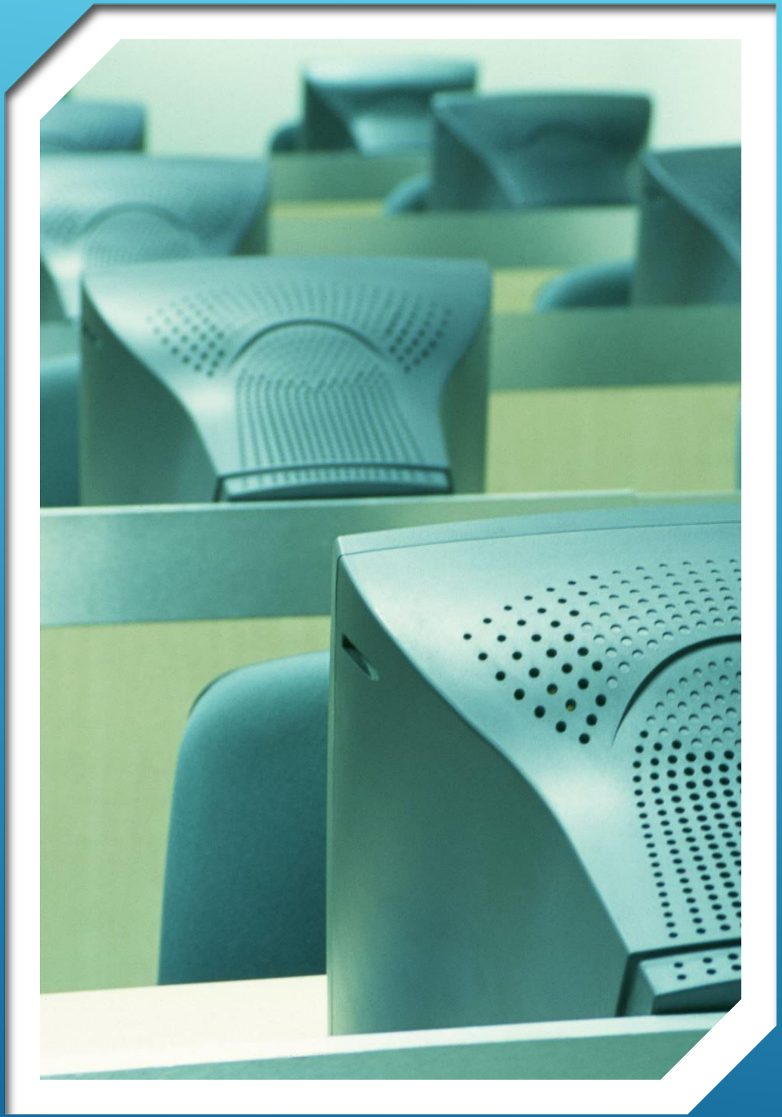
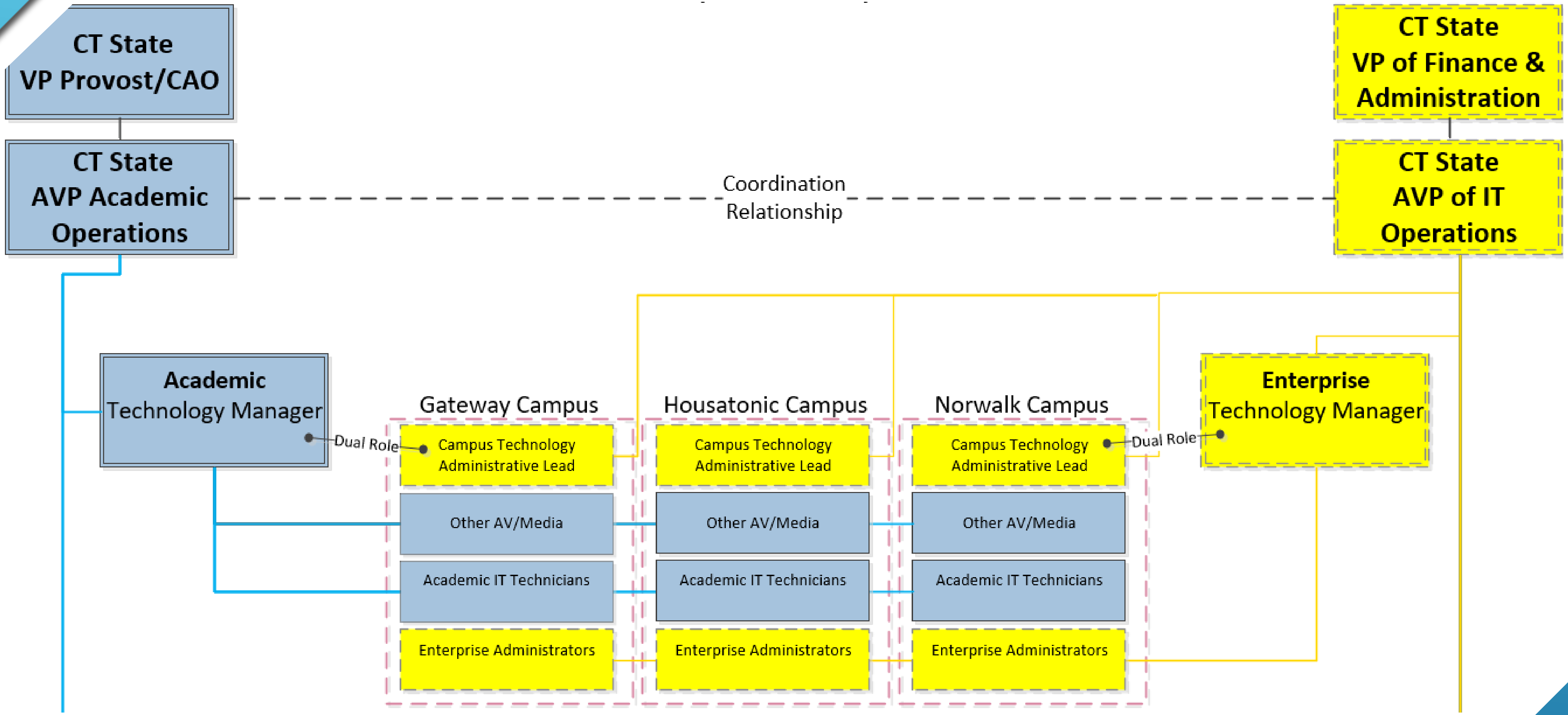


- All TSO staff, except the CT State AVP of Academic Operations and CT State AVP of Technology Operations will be campus based



CT State VP Provost/CAO

CT State AVP Academic Operations

Coordination Relationship

CT State VP of Finance & Administration

CT State AVP of IT Operations

Academic Technology Manager

Enterprise Technology Manager

Dual Role

Dual Role

Gateway Campus

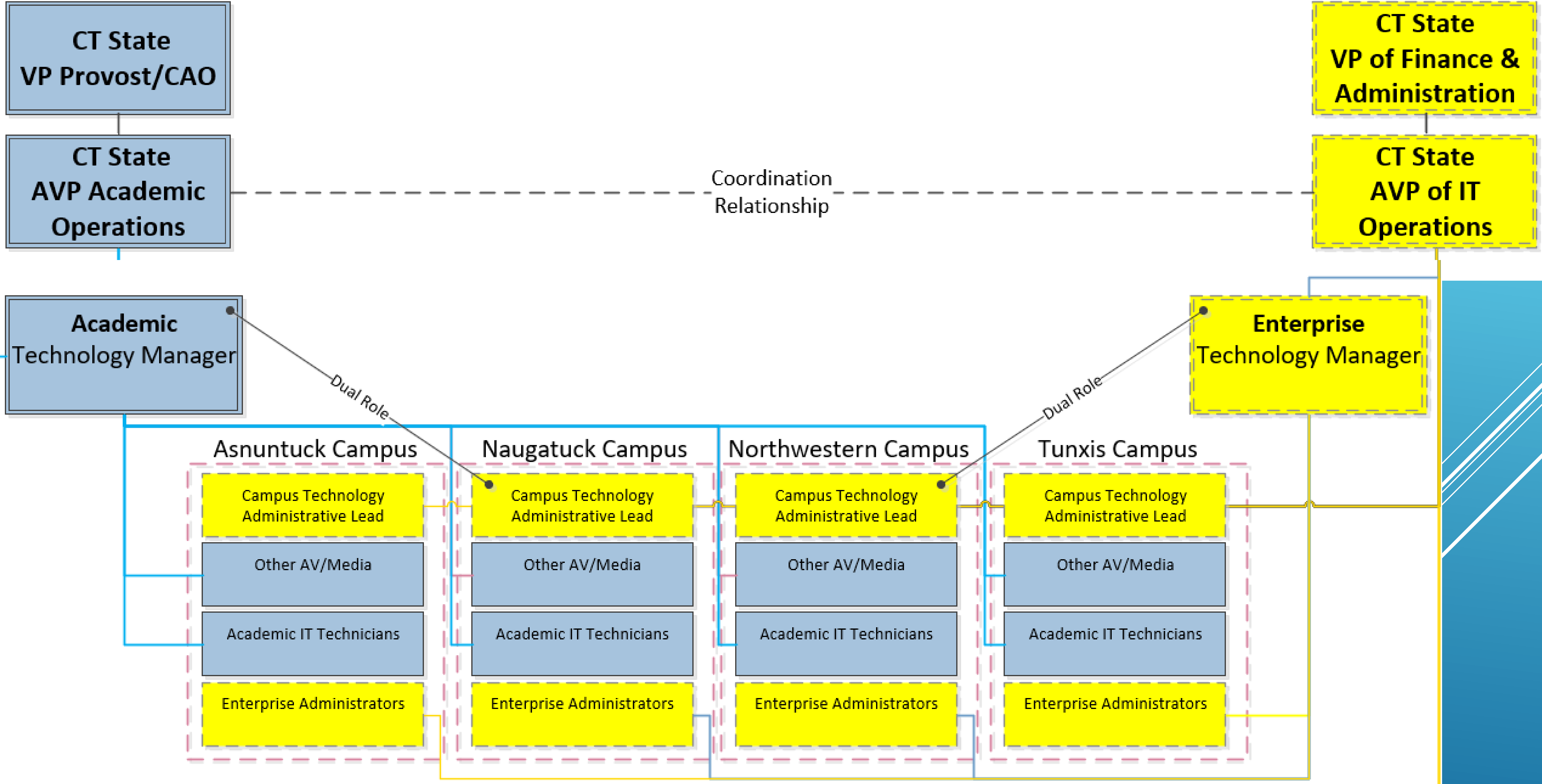
- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

Housatonic Campus

- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

Norwalk Campus

- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators



CT State
VP Provost/CAO

CT State
AVP Academic Operations

Coordination Relationship

CT State
VP of Finance & Administration

CT State
AVP of IT Operations

Academic Technology Manager

Dual Role

Enterprise Technology Manager

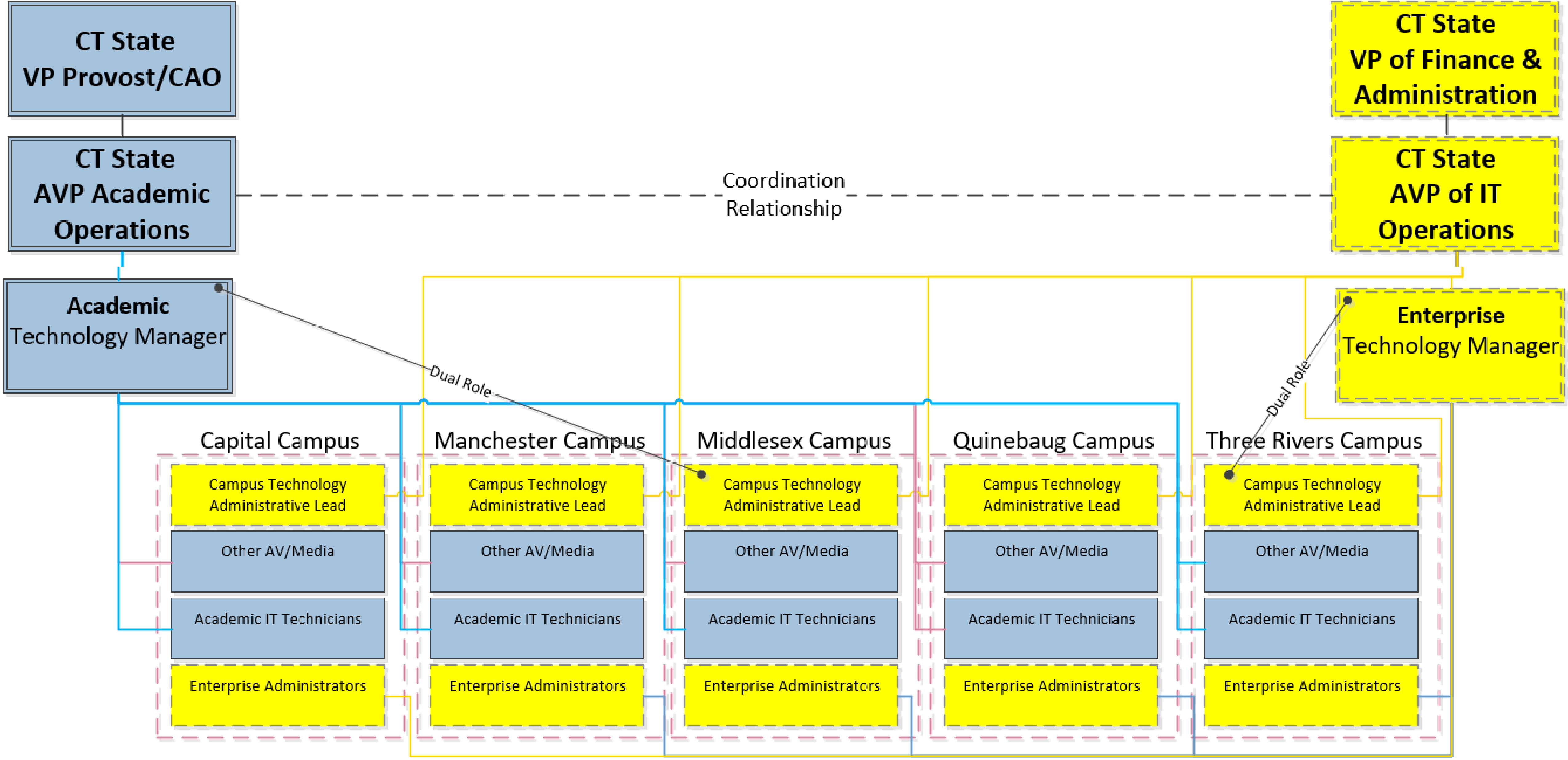
Dual Role

Asnuntuck Campus
- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

Naugatuck Campus
- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

Northwestern Campus
- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

Tunxis Campus
- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators



CT State VP Provost/CAO

CT State AVP Academic Operations

Academic Technology Manager

Coordination Relationship

CT State VP of Finance & Administration

CT State AVP of IT Operations

Enterprise Technology Manager

Dual Role

Dual Role

Capital Campus

- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

Manchester Campus

- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

Middlesex Campus

- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

Quinebaug Campus

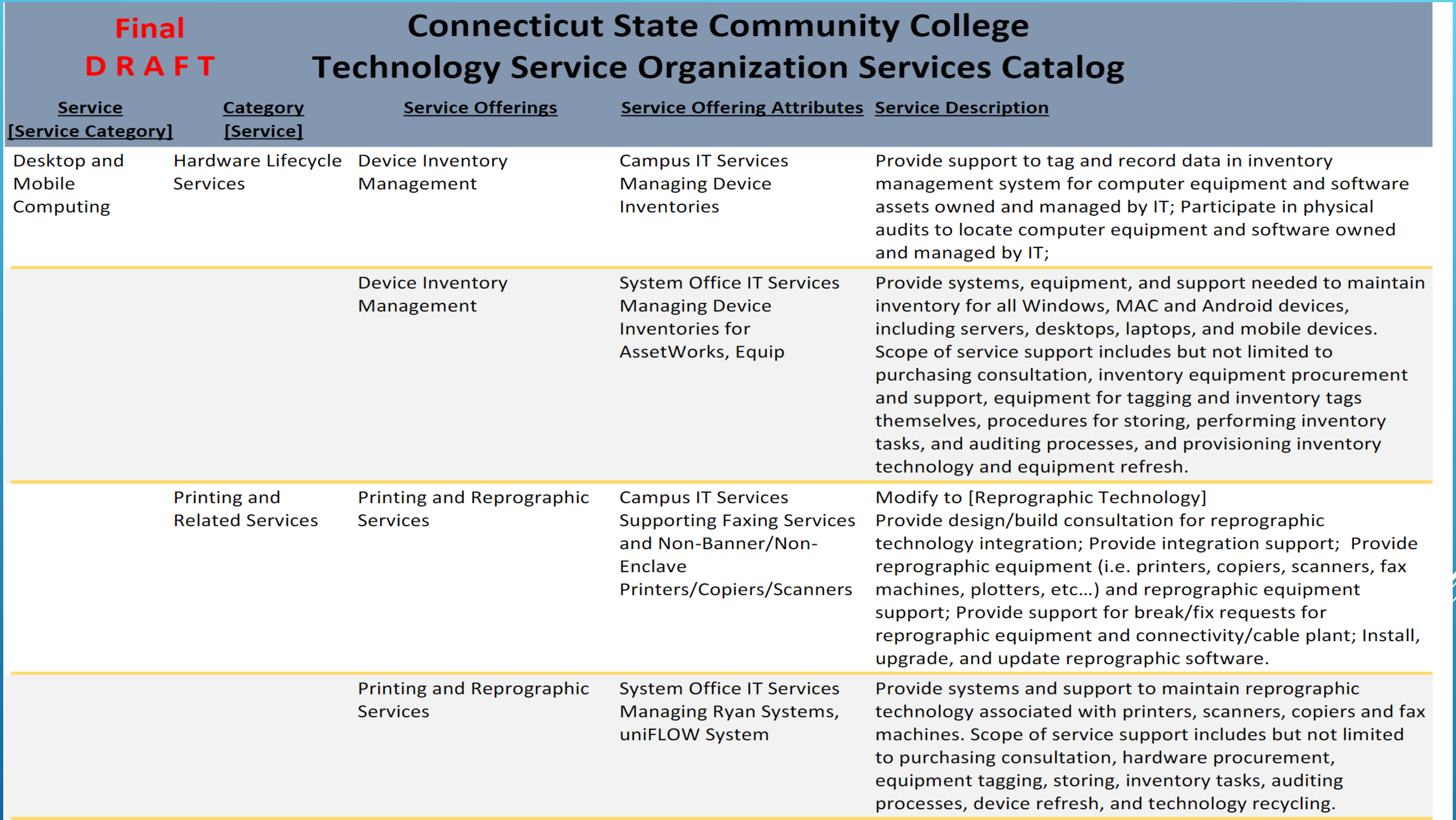
- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

Three Rivers Campus

- Campus Technology Administrative Lead
- Other AV/Media
- Academic IT Technicians
- Enterprise Administrators

PRINTING

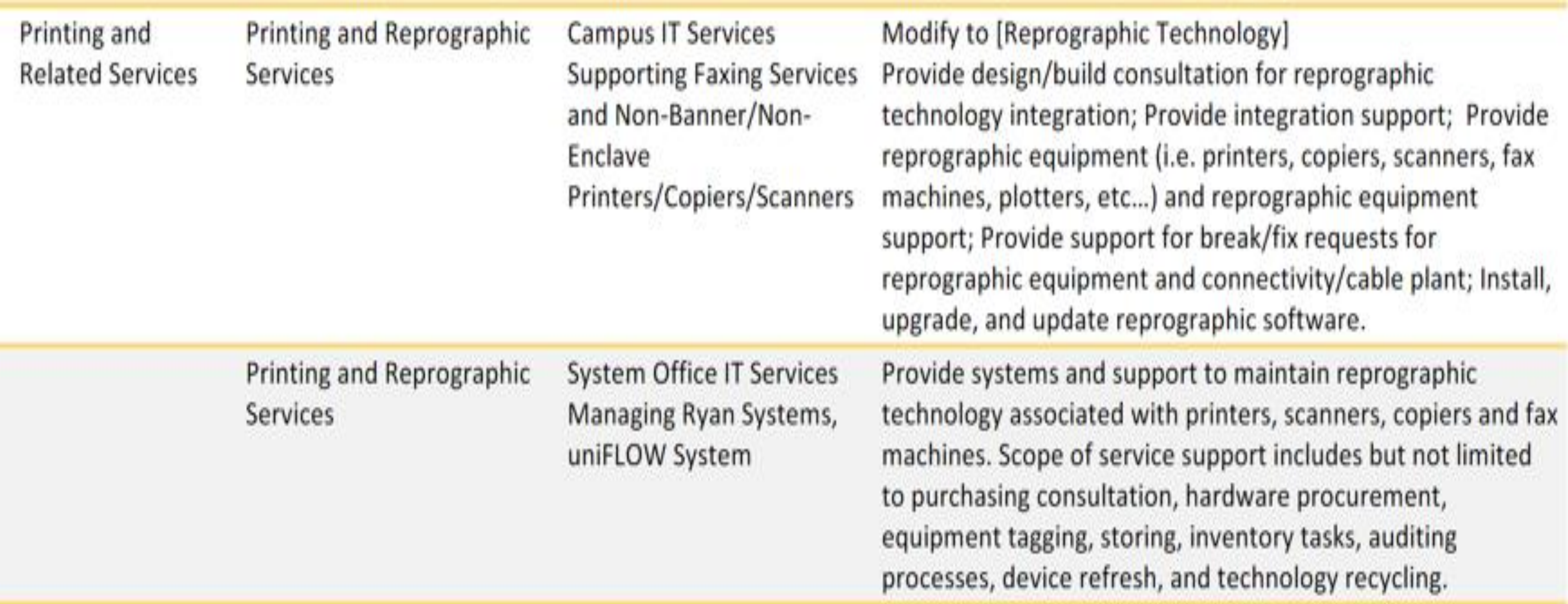
Student support ticket example



Final
DRAFT

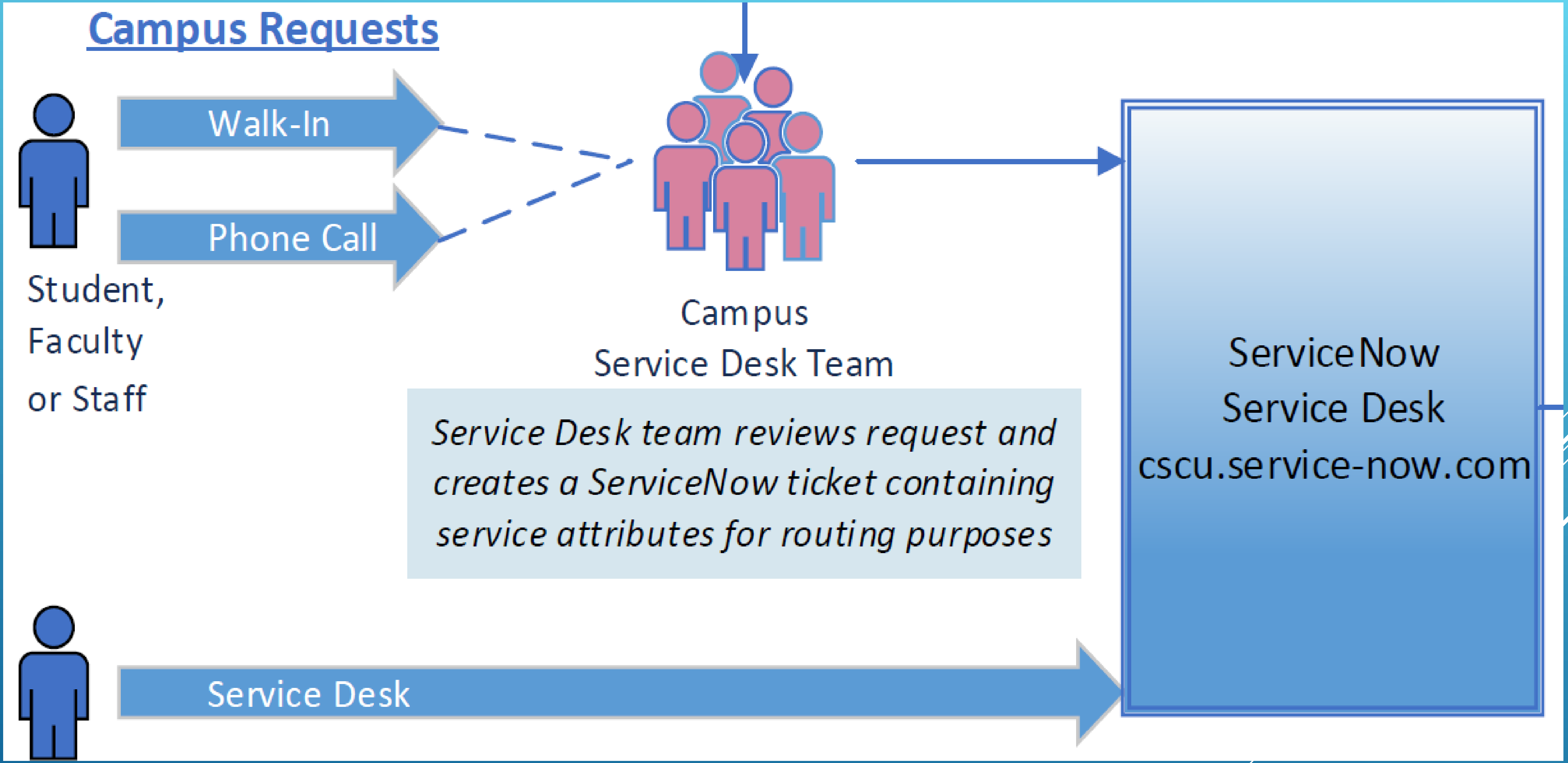
Connecticut State Community College
Technology Service Organization Services Catalog

Service [Service Category]	Category [Service]	Service Offerings	Service Offering Attributes	Service Description
Desktop and Mobile Computing	Hardware Lifecycle Services	Device Inventory Management	Campus IT Services Managing Device Inventories	Provide support to tag and record data in inventory management system for computer equipment and software assets owned and managed by IT; Participate in physical audits to locate computer equipment and software owned and managed by IT;
		Device Inventory Management	System Office IT Services Managing Device Inventories for AssetWorks, Equip	Provide systems, equipment, and support needed to maintain inventory for all Windows, MAC and Android devices, including servers, desktops, laptops, and mobile devices. Scope of service support includes but not limited to purchasing consultation, inventory equipment procurement and support, equipment for tagging and inventory tags themselves, procedures for storing, performing inventory tasks, and auditing processes, and provisioning inventory technology and equipment refresh.
	Printing and Related Services	Printing and Reprographic Services	Campus IT Services Supporting Faxing Services and Non-Banner/Non-Enclave Printers/Copiers/Scanners	Modify to [Reprographic Technology] Provide design/build consultation for reprographic technology integration; Provide integration support; Provide reprographic equipment (i.e. printers, copiers, scanners, fax machines, plotters, etc…) and reprographic equipment support; Provide support for break/fix requests for reprographic equipment and connectivity/cable plant; Install, upgrade, and update reprographic software.
		Printing and Reprographic Services	System Office IT Services Managing Ryan Systems, uniFLOW System	Provide systems and support to maintain reprographic technology associated with printers, scanners, copiers and fax machines. Scope of service support includes but not limited to purchasing consultation, hardware procurement, equipment tagging, storing, inventory tasks, auditing processes, device refresh, and technology recycling.



Printing and Related Services	Printing and Reprographic Services	Campus IT Services Supporting Faxing Services and Non-Banner/Non-Enclave Printers/Copiers/Scanners	Modify to [Reprographic Technology] Provide design/build consultation for reprographic technology integration; Provide integration support; Provide reprographic equipment (i.e. printers, copiers, scanners, fax machines, plotters, etc…) and reprographic equipment support; Provide support for break/fix requests for reprographic equipment and connectivity/cable plant; Install, upgrade, and update reprographic software.
	Printing and Reprographic Services	System Office IT Services Managing Ryan Systems, uniFLOW System	Provide systems and support to maintain reprographic technology associated with printers, scanners, copiers and fax machines. Scope of service support includes but not limited to purchasing consultation, hardware procurement, equipment tagging, storing, inventory tasks, auditing processes, device refresh, and technology recycling.

Campus Requests



Walk-In

Phone Call

Student,
Faculty
or Staff

Campus
Service Desk Team

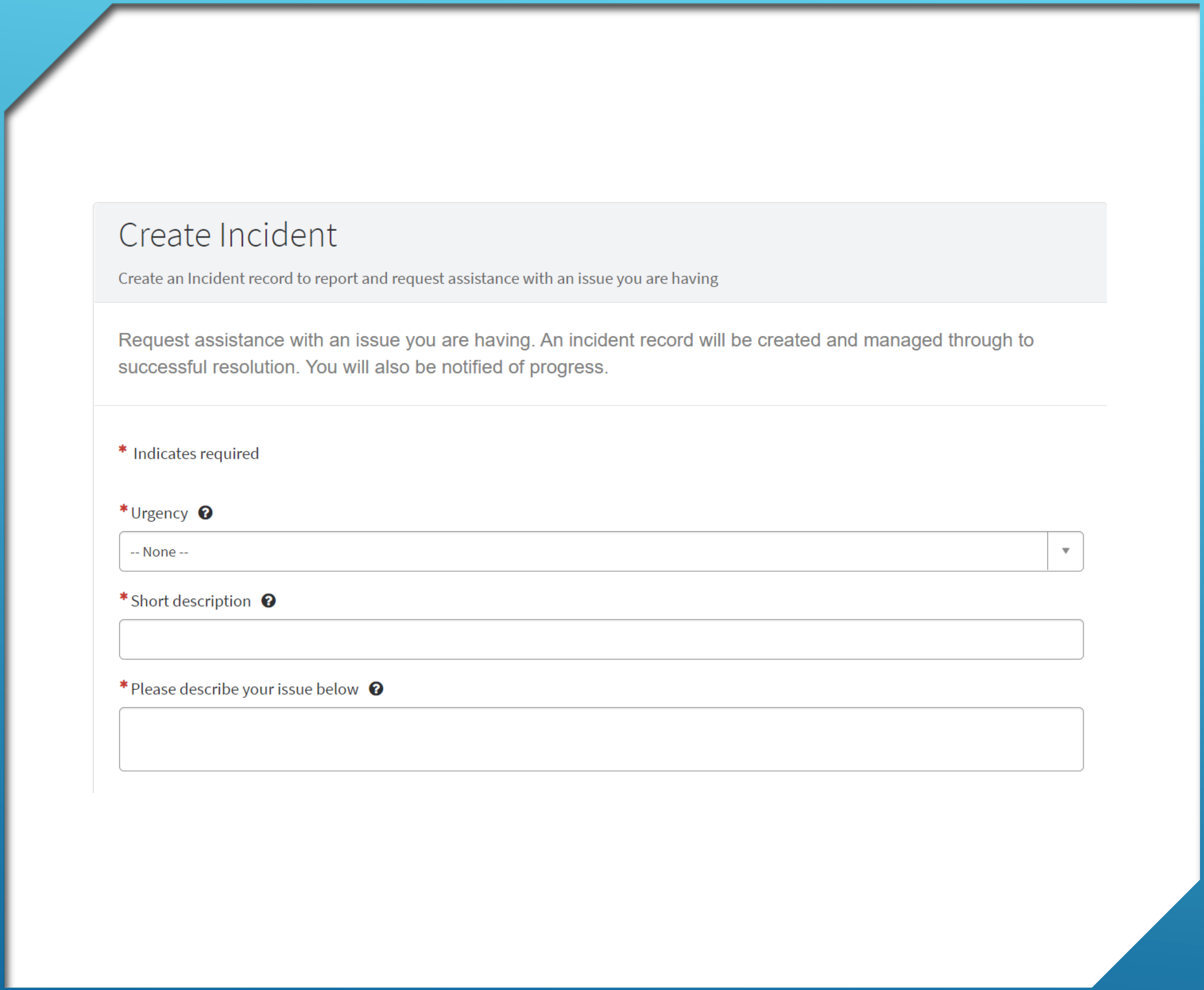
Service Desk team reviews request and creates a ServiceNow ticket containing service attributes for routing purposes

ServiceNow
Service Desk
cscu.service-now.com

Service Desk

CREATE IT INCIDENT

A support ticket in Service Now



Create Incident

Create an Incident record to report and request assistance with an issue you are having

Request assistance with an issue you are having. An incident record will be created and managed through to successful resolution. You will also be notified of progress.

* Indicates required

*Urgency

-- None --

*Short description

*Please describe your issue below

The student calls the local IT Help Desk or walks into IT. Informs IT they are having trouble printing

IMPORTANT CLARIFICATION

- Regardless of the way a student reaches out to IT, all student* IT requests originate at the local campus.
- Method I – Service Now request sends the request to local IT staff via an email notification to assigned fulfillers.
- Method II – the student reaches out directly (and IT staff create the Service Now ticket after the fact for tracking purposes).

*College staff and faculty may be asked to create a service ticket before receiving IT assistance.

THE WORLD'S ONLY RELIABLE NEWSPAPER

COMPUTER VIRUS SPREADS TO HUMANS!

BAR GLASSES HELP YOU SEE STRAIGHT WHEN YOU'RE DRUNK!

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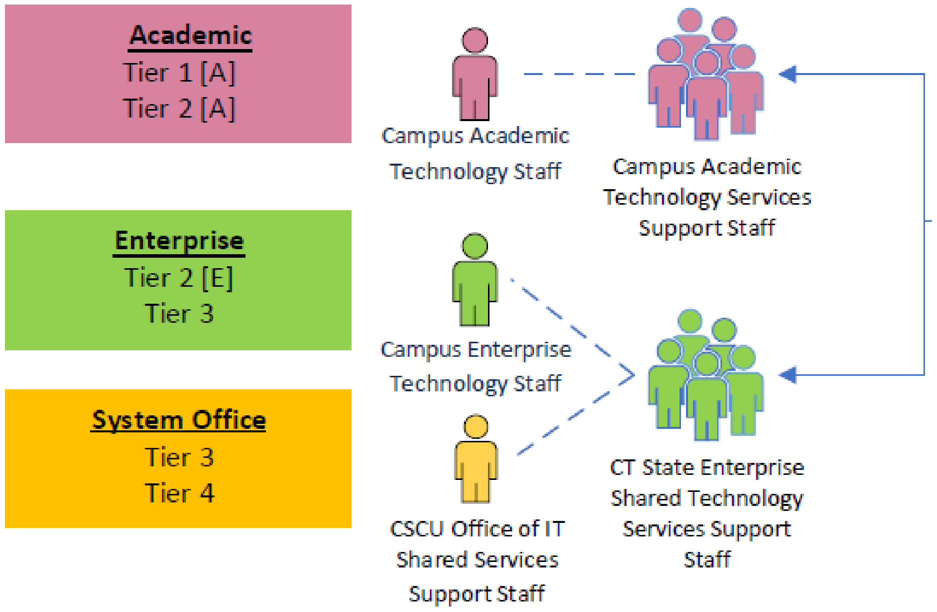
MYTHS AND HALF TRUTHS

Myth: Service Now requests go to Hartford or New Britain first. **All campuses have fulfillers on site who receive the requests.**

Half-Truth: A student requesting help directly from IT will be directed to the help desk. Front line academic technicians and student workers assist students first and create a service ticket later. There are exceptions when a service ticket would actually be faster. For instance, a student needs a standard password reset. We have a 24/7/365 service for password resets, so in this case the preferred means for getting a reset is to use that service.

A STUDENT CANNOT PRINT AND CONTACTS IT.
WHAT HAPPENS NEXT?

IT Support Level	Function
Tier 0	Self-Help and User-Retrieved Information
Tier 1 [A]	Basic **Onsite** Academic and Enterprise Technology Service Resolution and General Service Desk Fulfillment Tasks
Tier 2 [A]	In-Depth **Onsite** Academic Technology Support
Tier 2 [E]	In-Depth **Onsite** Enterprise Technology Support
Tier 3	Technology Subject Matter Expert for Service Support
Tier 4	Outsourced Support



Academic
Tier 1 [A]
Tier 2 [A]

Enterprise
Tier 2 [E]
Tier 3

System Office
Tier 3
Tier 4

Campus Academic Technology Staff
Campus Academic Technology Services Support Staff
Campus Enterprise Technology Staff
CSCU Office of IT Shared Services Support Staff
CT State Enterprise Shared Technology Services Support Staff

ACADEMIC IT SUPPORT (TIERS 1[A] & 2[A])

Tier 0

- Student finds related printing support documentation
- print Search - Service Portal (service-now.com)

Tier 1[A]

- Academic IT Tech I or student worker verifies the student is attempting to print correctly
- Academic IT Tech I or student worker check the printer for standard issues. Is the printer on? Is there a paper jam?

Tier 2[A]

- Academic IT Tech II or Academic IT Tech III performs a more in depth onsite analysis
- Does the student need their printing budget increased? Does the printer queue need to be cleared?

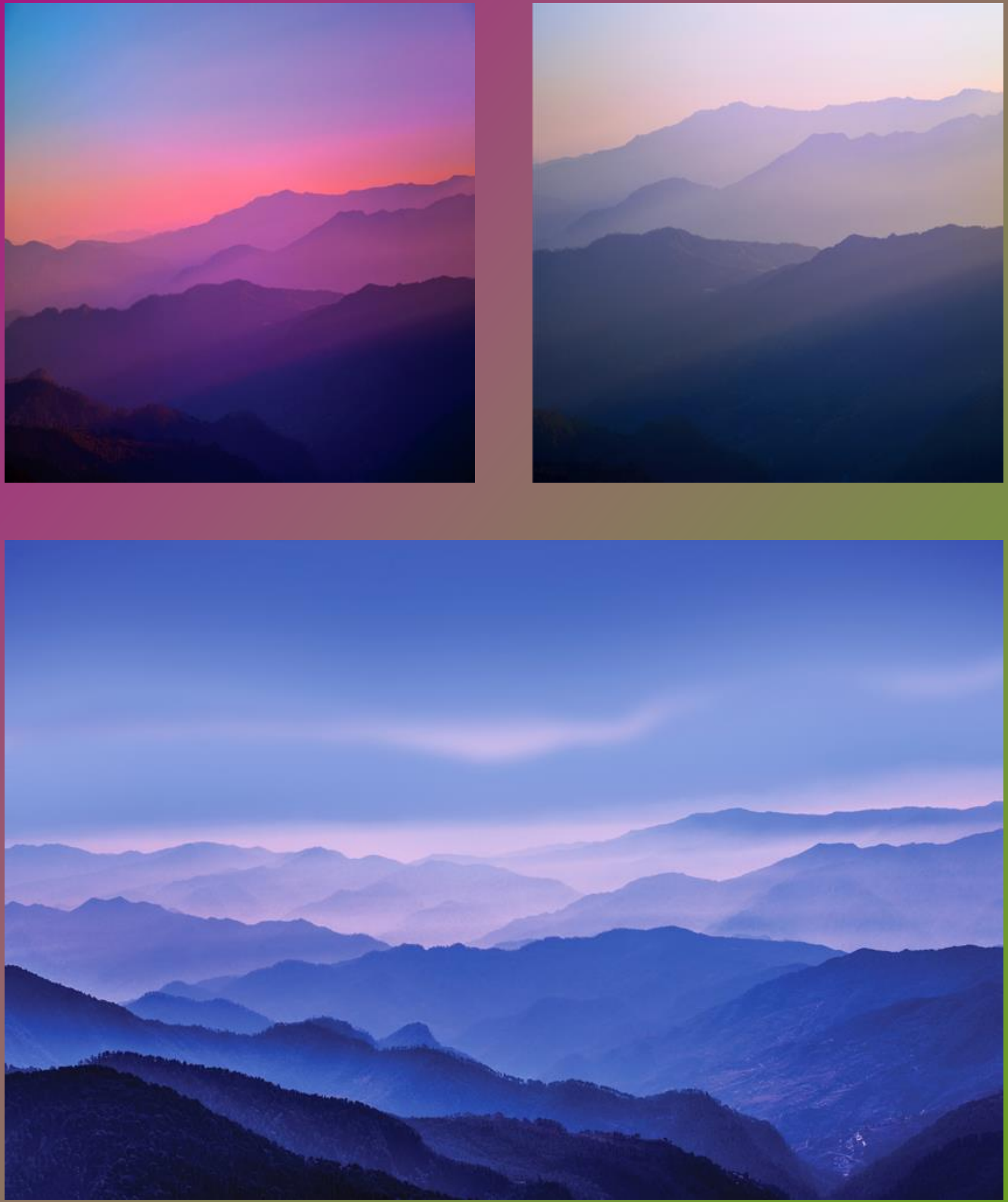
ENTERPRISE IT SUPPORT (TIERS 2[E] & 3)

Tier 2[E]

- Onsite Enterprise IT staff have access to more sensitive systems. At this level an Enterprise Technology Administrator I or II will look at Network and server problems

Tier 3

- At this stage, the service request is no longer a standard break/fix and it has a deeper issue. It goes to an onsite Enterprise Technology Administrator III or to the Enterprise Technology Manager – who may or may not be on site.
- Are there a group of students who are not being added to print server? Is there a firewall configuration blocking printing?



What about Tier 4?

That is beyond the scope of this presentation.

For this example, the "outsourced support" might be the System Office IT support staff who manage the Managed Print Services server, or it may be the vendor who provides support, Ryan Business Systems.

At Tier 4 support the Assoc. Vice President of Technology or the Assoc. CIO would be involved

Internet
security

CYBER
SECURITY

Why Enterprise IT?

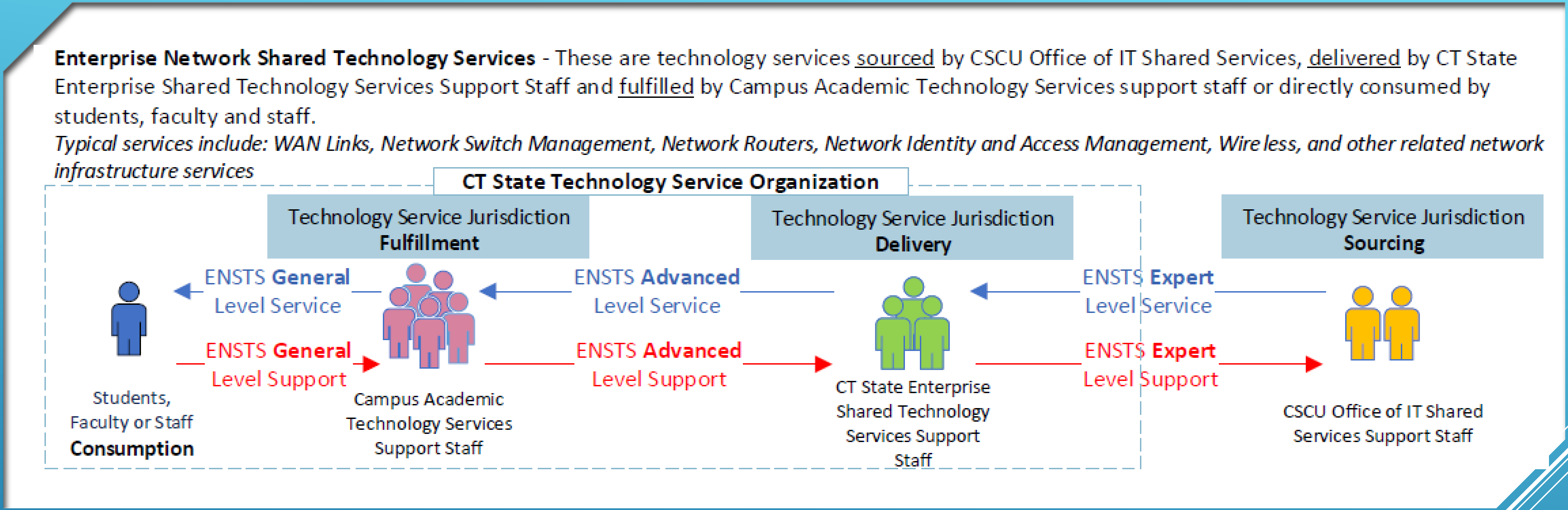
According to Industry Standards, 75-80% (Swain & Garza) of support tickets are resolved by Tier 2[A].

Enterprise IT primary role is the Delivery of IT services:

- Security Controls
- Disaster Recovery
- Network Architecture
- Virtualization
- Project Services

ACTIVE PROJECTS

Core Migration and upgrade at all 12 campuses	Requires Saturday and Sunday work so as not to interrupt classes
MFA: Multi-Factor Authentication	Roll out requirement to faculty, students, and staff
DIM: Desktop Imaging and Management	Will provide a standard software images across the system
SVI: Server Virtualization Infrastructure	Centralize servers for management and cost effectiveness
VDI: Virtual Desktop Infrastructure	Deliver virtual desktops to CSCU students, faculty, and staff



Enterprise Network Shared Technology Services - These are technology services sourced by CSCU Office of IT Shared Services, delivered by CT State Enterprise Shared Technology Services Support Staff and fulfilled by Campus Academic Technology Services support staff or directly consumed by students, faculty and staff.

Typical services include: WAN Links, Network Switch Management, Network Routers, Network Identity and Access Management, Wireless, and other related network infrastructure services

CT State Technology Service Organization

Technology Service Jurisdiction **Fulfillment**

Technology Service Jurisdiction **Delivery**

Technology Service Jurisdiction **Sourcing**

ENSTS **General** Level Service

ENSTS **General** Level Support

ENSTS **Advanced** Level Service

ENSTS **Advanced** Level Support

ENSTS **Expert** Level Service

ENSTS **Expert** Level Support

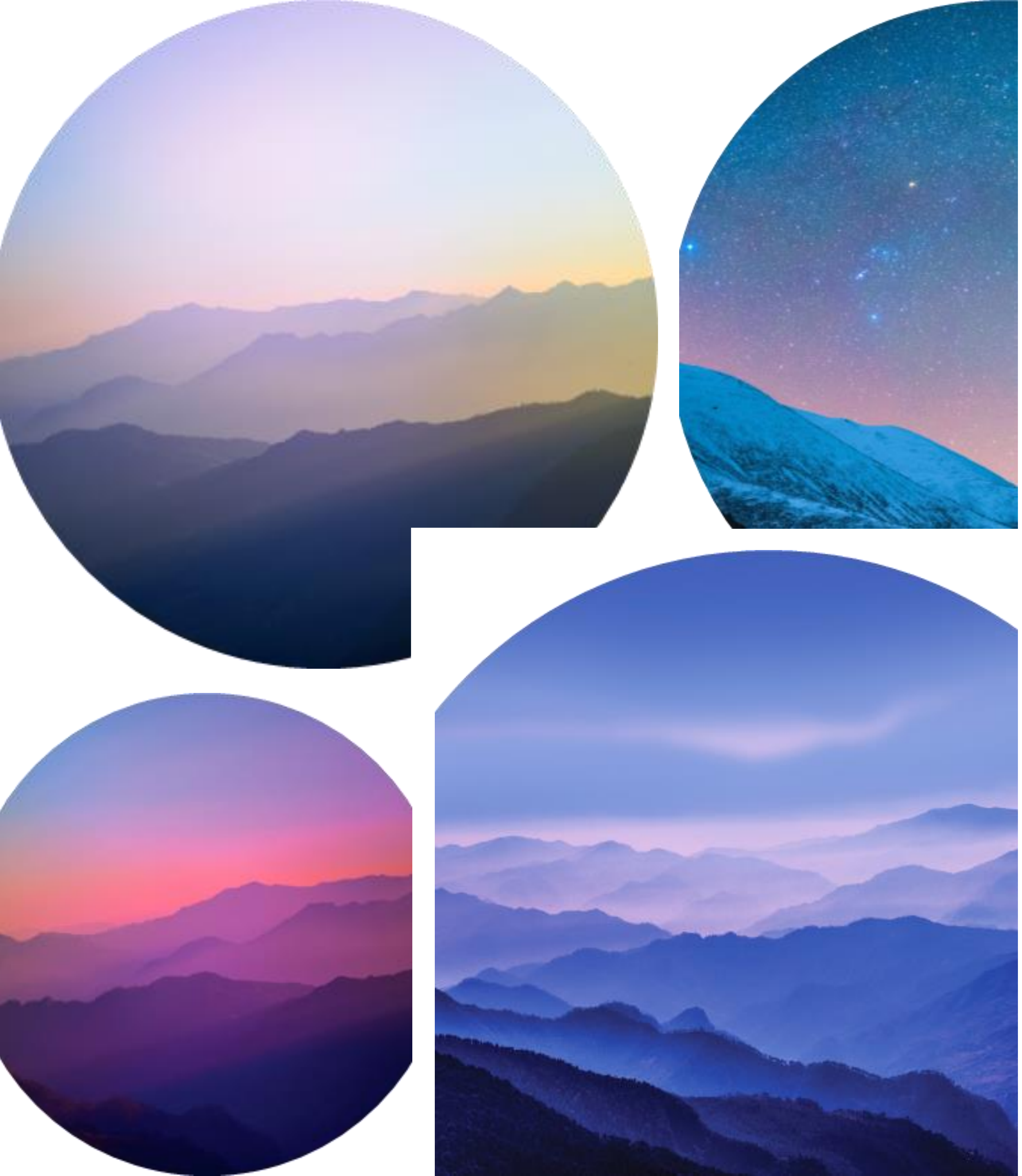
Students, Faculty or Staff **Consumption**

Campus Academic Technology Services Support Staff

CT State Enterprise Shared Technology Services Support Staff

CSCU Office of IT Shared Services Support Staff

ENTERPRISE NETWORK SHARED TECHNOLOGY SERVICES MODEL



- Dr. Jarrod Borek
- Dr. Manuel Gomez

THANK YOU

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- Danajovits, J., et al. (2021). *Connecticut State Community College Technology Service Organization Services Catalog* [Database].
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