# KETS Technical Environment Overview

Last Reviewed: Oct 23, 2026

Last Updated: Oct 23, 2026


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The information contained within this overview is the current state for the respective Kentucky Educational Technology System (KETS) technical environments. Some environments refer to current or future project related work that may result in changes that impact the information contained within these documents. Where possible, that information is included. However, these documents are for high level planning purposes only.

The Kentucky Education Technology Systems (KETS) product and technology standards enable commonality and consistency among Kentucky's public school districts. These standards complement KETS initiatives and help ensure system supportability across all districts. While the technical environment described in this document follows these standards, the actual KETS Standards cover additional products and technologies, and new systems implemented at the state and district levels are expected to conform to these Standards where applicable. The KETS Standards can be found on the KDE website, currently at https://education.ky.gov/districts/tech/kpur/Pages/KETS%20Technology%20Standards%20and%20Purchasing.aspx.


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# Identity and Directory
# Section 001

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Last Updated: 10/23/2026

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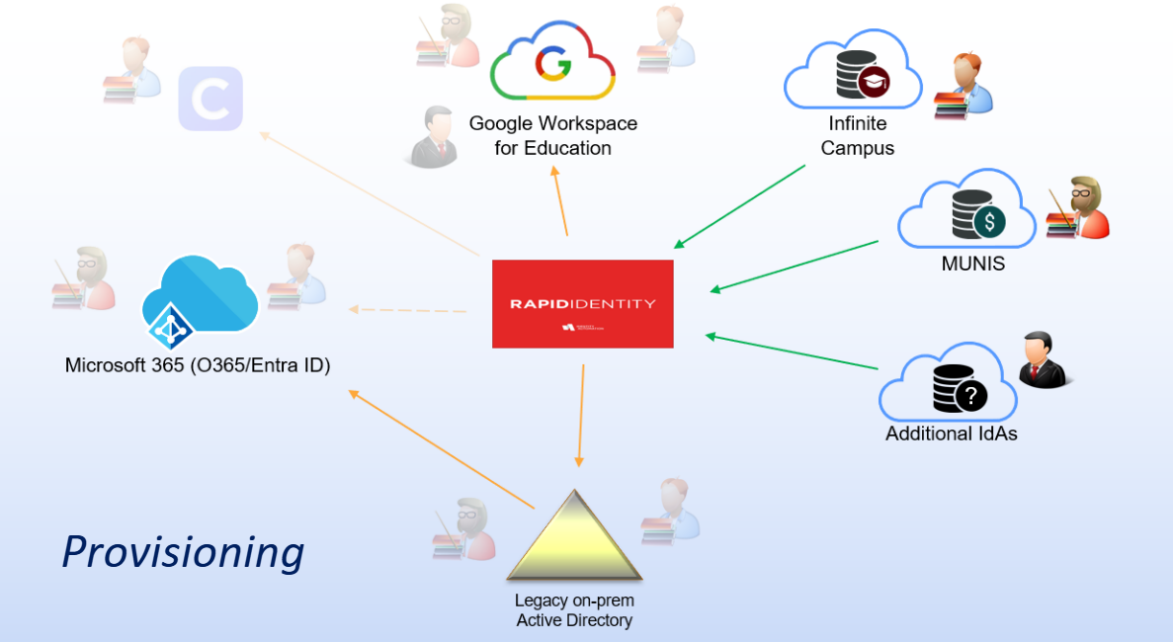
## Summary

This section describes the solutions utilized to provide identity and access to KETS and K12 resources, as well as the directory service used for local access and management of Microsoft technology resources

## Identity

Identity Automation's product Rapid Identity (also referred to as 'CUES') is used in each district to provision user identities from sources of authority (Tyler EERP and Infinite Campus) to the enterprise shared statewide systems (M365/Entra ID, Google Workspace and Active Directory). It also can and will function as the Identity Provider (IdP), with each district federating logins (SSO) to this CUES system, specifically O365, Google Workspace for Education, Tyler Ent ERP and Infinite Campus. Other cloud-based systems will can also federate login to CUES using standard protocols (SAML/OIDC). Rapid Identity is also used for group management, which can provision groups along with users to relaying systems.

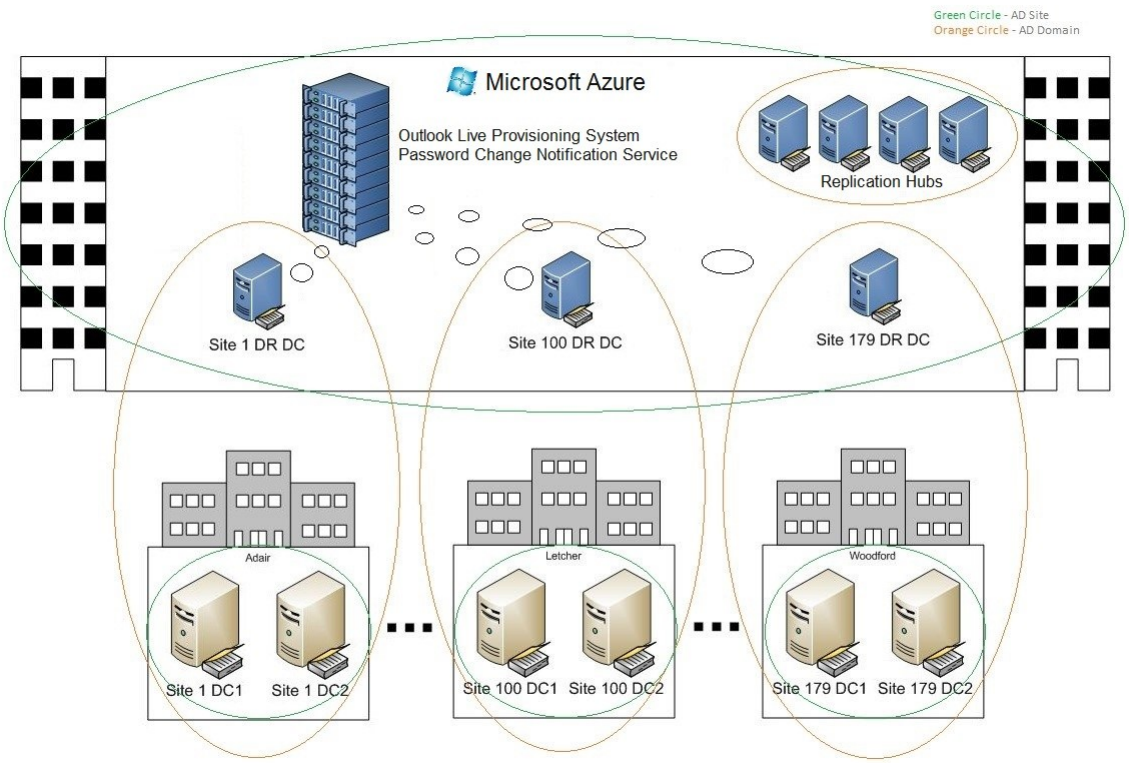
Each district has its own instance (tenant) of Rapid Identity. Currently Rapid Identity provisions to Active Directory and then to Entra/Office 365. We are decommissioning Active Directory over the next 2 years, to be completed by July 2028. As AD is phased out for each district the provisioning provided today through AD to Entra through Entra Connect Sync will be replaced by Rapid Identity which is represented by a faded dotted line below.




## Directory

The KETS Active Directory provides authorization and authentication services for nearly 1,000,000 user objects and 500,000 computers and servers. It provides a directory structure for easier management of the user and computer objects throughout the KETS environment. Microsoft Active Directory services provide WINS and Group Policies for object management, as well as normal directory services like authentication and authorization. There are also dependencies with Office 365 for Education regarding account provisioning and password sync. Please visit Section 5 ‘Electronic Email and Collaboration’ for more information.

This is a diagram of the KETS Active Directory structure. The green circles represent AD Sites for replication and the orange circles designate domains. One of the two district-located DCs is also a Global Catalog server. Though there are only three domains shown these represent 177 domains, and one empty root domain (178 total AD Domains). All Active Directory Domain Controllers are virtualized with the exception of the two root domain controllers located in Frankfort (GC/DC).




# Description

The KETS Active Directory is a mixed mode Windows Server single forest with 179 domains, averaging 3,500 users per domain. All domain controllers are running Windows Server. The smallest domain has approximately 500 users while the largest has nearly 125,000. The forest consists of a root domain, one domain each for the Department of Education, KY School for the Deaf (KSD), KY School for the Blind (KSB), as well as one domain for each of our 171 school districts. There are also three additional domains that are used for piloting updates. Each domain has a minimum of three domain controllers with one acting as a global catalog server. One DC for each domain is located in Microsoft Azure 'in the cloud'. This provides off-site redundancy from a district perspective. Generally, each district is also a single site within the directory structure. Replication within the forest is a hub and spoke model with replication hub servers hosted in Microsoft Azure and site links created between each domain and the hub site. We have a site-to-site VPN connection between our internet peering points (located in Indianapolis and Nashville) and our Azure environment through our Internet provider (Zayo ENA).

WINS is only enabled in a few districts. DNS and DHCP are no longer provided by Active Directory (see 'The NGKI Network').

Organizational units have been created within each district, named 'Students', 'Staff', 'Leadership', 'Workstations', and 'Local Servers'. These top-level organizational units cannot be deleted or have their permissions modified. Key district technical staff have been delegated permissions to create/modify child organizational units for each school in

the district as prescribed in the KETS OU Naming Standards document (available upon request).

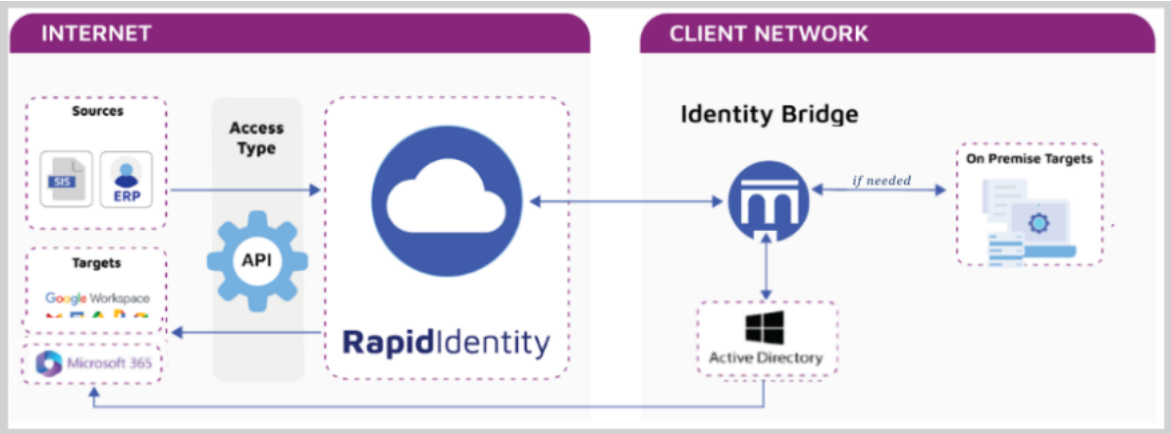
## Identity extends from AD to Office 365 for Education

Entra Connect Sync (also referred to as AADC) is configured for each school district, provisioning users and groups from on-prem Active Directory to each district's Office 365 tenant. The Entra Connect Sync services are supported by KDE/OET. The Entra Connect Sync functionality will be replaced by Rapid Identity as each district decommissions Active Directory.

## Management and Support Strategy

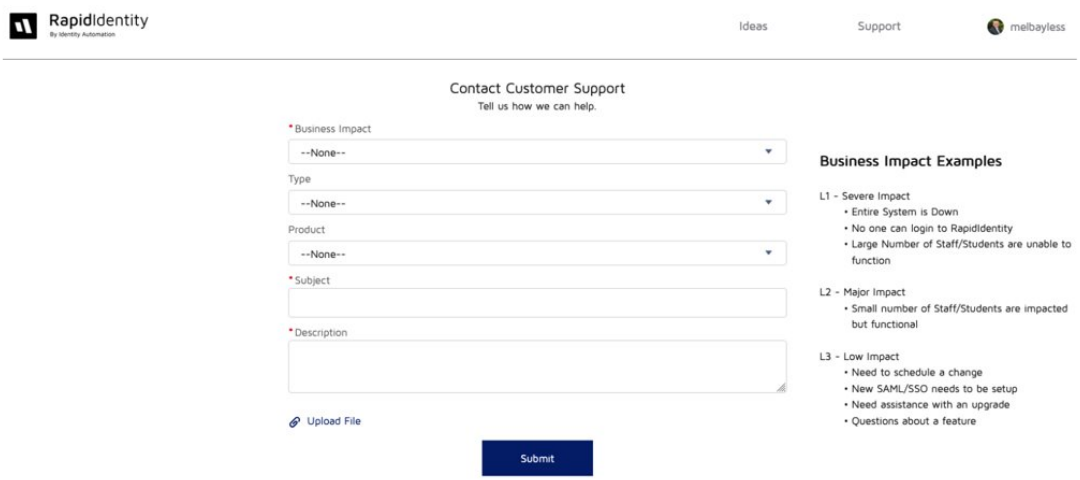
The KETS Active Directory is monitored using Microsoft System Center Operations Manager. The KETS Messaging and Directory Services Team and the other operation service teams provide management of sites, site links, replication, domain controllers' hardware, and all naming services. The KETS Messaging and Directory Services Team manages all infrastructure and enterprise functions of Active Directory. District technical staff manage user account creation/modification, computer account creation/modification, and some group policy creation/modification within specified organizational units. Permissions have been delegated to a named group within each domain for these functions. When districts have issues, they have the ability to call a technical service desk employed by KDE. Some issues are escalated to the KETS Messaging and Directory Service Team and potentially on to Microsoft through a Premier Support engagement.

Identity Automation provides management and support for each district's Rapid Identity tenant (171 districts, KDE, KSD, KSB and three test environments). There is currently a component called Identity Bridge with exists 'on-prem' which allows RI's connection to Active Directory. The Identity Bridge exists as a VM which the host is supported by OET and the bridge service is supported by IA.

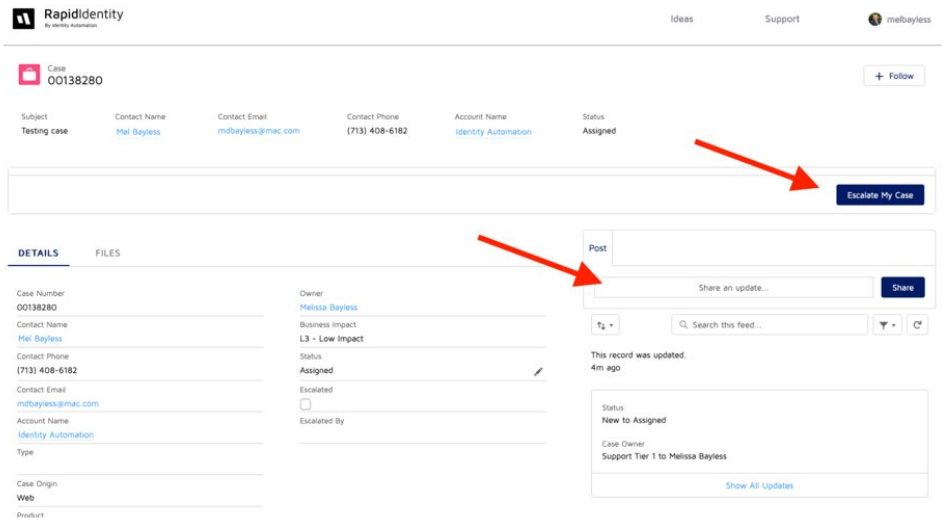


Rapid Identity support is provided 24/7 with a 15-minute initial response time.  There's a case escalation dashboard:

## Enter a Support Case




## Update your Case / Escalate your Case




There's also a Sev L1 Emergency/Critical case escalation that's 24/7/365 with 15 min response.

# Future Plans

We are in the planning phase of a project to move away from Active Directory. The goal of all districts having AD decommissioned by July 2028. We have engaged Insight for Microsoft expertise in moving from the Entra Connect Sync as well as helping define the process of decommission AD from the enterprise.

We are planning by July 2027 to reduce our on-prem HW footprint by moving the Global Catalog (GC) server in each district to the same HW server that hosts the DC, resulting in turning off one server.

Regarding Rapid Identity provisioning and SSO we have plans to expand usage and implement enhancements of the product for all districts for the foreseeable future.

# Internet Content Management System

# Section 002

Last Reviewed: 10/15/2026
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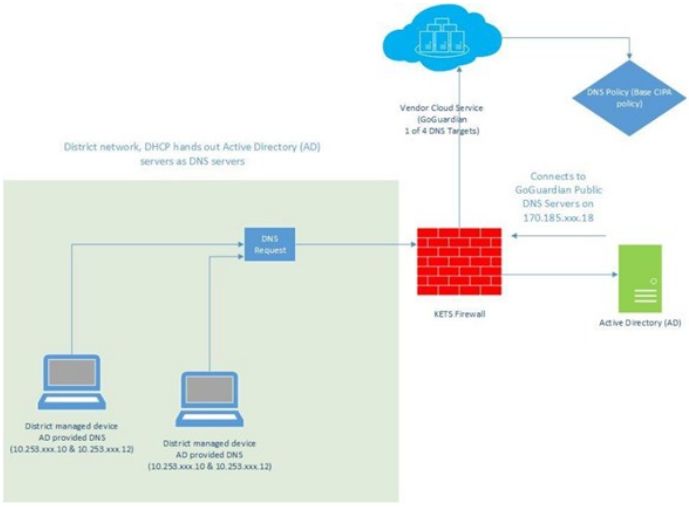
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# Summary

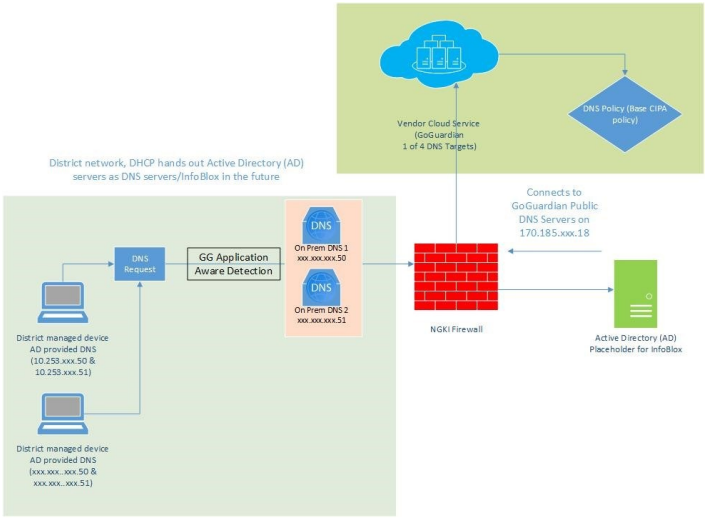
This document describes the design and use of Internet Content Management Systems within the Kentucky Education Technology Systems (KETS) network and within the Kentucky K-12 school districts.

# Visual Representation

Standard Vendor Cloud-Based DNS Filter Option




Optional On-Premise DNS Filter (Precision DNS)




# Description (Standard Cloud-Based DNS Filter Option)

The current Kentucky Education Network consists of an Ethernet backbone provided by Zayo Education using a variety of local connectivity partners, connecting to the Internet via Zayo Education POPs.  The school districts have Internet connectivity via this

backbone.  KDE the Agency, as well as each school district, has their own independent Internet Content Management System based on the GoGuardian Admin product. Activity monitoring and reporting are based on end-user identity authentication, IP addressing, or client installation on the end-user system. This is a combination solution consisting of the GoGuardian Admin application (Windows, MacOS and Apple IOS) and Chrome PWA extensions (ChromeOS) used on district owned end user devices and the GoGuardian cloud-based DNS content management service used for all on premise devices not owned by districts (BYOD) or devices that cannot use the GoGuardian Admin software. Both solutions manage all Internet bound traffic that passes through the installed applications/extensions, or the cloud-based DNS content management system. The GoGuardian device clients and cloud-based policies are managed by the same administration console, and policy sets and configurations are distributed to both systems.

## Description (On-Premises DNS Filter – Precision DNS - Optional)

In addition to the service described above, districts may choose to add two “Precision DNS Servers” (PDNS) to the local network. These servers can be physical or virtual units and are owned and managed by the district. The PDNS servers will host the service that will operate the GoGuardian application that will perform the policy execution locally that was performed in the GoGuardian cloud service DNS.  This allows the recognition of local IP addressing and also provides additional reporting options not available in standard cloud-based service.

A baseline configuration is provided to all districts that may be used as a guide with the GoGuardian Admin system. Districts may alter that configuration to reflect any additional policies or restrictions they practice.

## Management Strategy

The Office of Educational Technology (OET) provides the GoGuardian Admin solution and a baseline configuration for all districts.  GoGuardian provides direct support for this product for districts and KDE. Each district is responsible for their own maintenance and configurations beyond the baseline provided.  If a district has requested a waiver for a different product, the district is responsible for all support and configurations and is expected to arrange for support from the vendor they have engaged with.

## Waiver option

Districts are allowed to request a waiver from the GoGuadian Admin product and select their own Internet content management system, so long as it meets the requirements documented in KAR 701-5:120, CIPA and other regulatory guidelines or statutes.

## Future Plans

KDE plans to continue using the GoGuardian solution for the foreseeable future.

# KETS Technical Environment Information Document

## Electronic Email and Collaboration
## Section 003

Last Reviewed: 10/19/2026
Last Updated: 10/19/2026

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# Summary

This document describes the electronic messaging and collaboration applications used by the Kentucky Department of Education, KSB, KSD, and the 171 Kentucky school districts. This comprises nearly 900,000 user mailboxes (faculty, staff and students).

These solutions are ‘cloud-based’ as backend systems that deliver these environments are maintained by the respective companies (Microsoft and Google). All districts and KDE have both an Office 365 and Google Workspace for Education system. Each district/KDE chooses where their users will use e-mail service specifically, but all other services are enabled for users (cloud drives, web conferencing, document sharing, etc). Users can choose which they want to use, but e-mail is enabled only for one of the systems for the entire district or KDE.

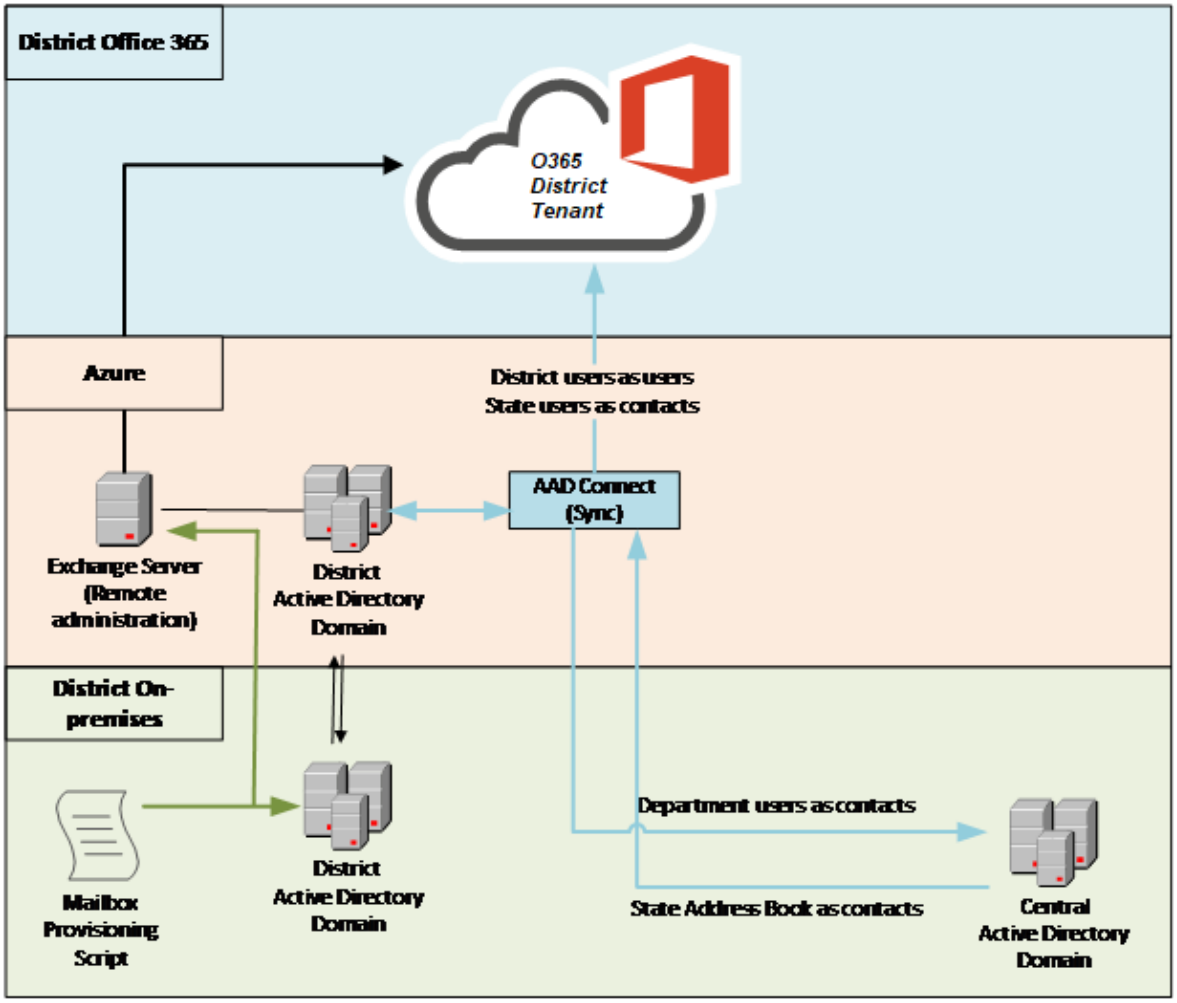
The Office of Education Technology manages the provisioning technologies to provision accounts to the Microsoft Office 365 environments. Each district (and KDE) manages provisioning to its own Google Workspace for Education environment. Districts and KDE maintain and manage their respective communications environment.

The provisioning of accounts (users, groups, etc.) to Entra/O365 is done through Microsoft’s Entra Connect Sync (aka AADC) which is provided and supported by OET. Google provisioning is accomplished through Rapid Identity. Some districts have chosen to utilize GCDS (Google’s provisioning tool) to create contacts from other districts (aka subsetGAL) which relies on Active Directory. For a deeper understanding of our Active Directory environment, you can go to that section in this document. *(NOTE-As mentioned in the Active Directory section we have two districts, Jefferson County and Owensboro Independent, that are provisioning mailboxes with another tool that replaces both Entra Connect Sync to O365 and Google Cloud Directory Sync to Google Workspace for Education)*

# Visual Representation

### Office 365 Provisioning

Visual representation Microsoft's provisioning topology as it pertains to Office 365



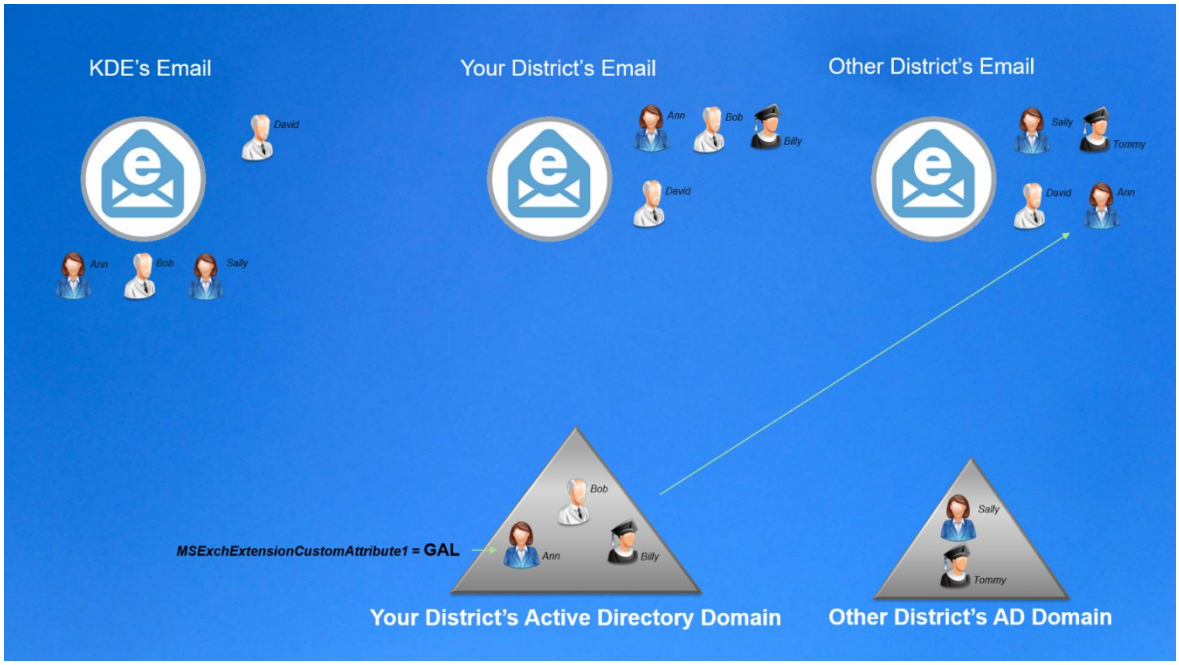

View of the provisioning infrastructure between Active Directory and Office 365. This allows us to utilize Active Directory for user management instead of using Office 365 directly for account creations, etc.

**SMTP Relay**

There are 2 x Windows 2019 Servers running IIS configured to forward SMTP email from allowed KETS devices (in districts and KDE). This is for devices that do not have the builtin ability to send email. By default all email sent through the relay goes out a single outbound connector. For those districts that wish to do DKIM Signing a dedicated connector is configured to their O365 or G Suite tenant where they can configure DKIM and then forward the mail.

**Subset GAL**

Visual representation how our 'Subset GAL' works




All adults in all districts show in KDE's Email Global Address list, and are also available to add to permissions of other Office 365 services (Sharepoint sites, OneDrive). Districts can add a value of GAL to a special attribute in Active Directory which will result in that user showing as a contact in all other district's email Global Address List, for both Office 365 and Google Workspace email systems.

Entra Connect Sync is used for O365 districts to create contacts, while GCDS is used (by some districts) to create contacts in Google Workspace for Education.

## Description

The Office 365 solution is Microsoft's cloud collaboration offering provided out of Microsoft's datacenters. It is comprised of the following:

- Exchange Online – Microsoft's electronic messaging solution.
- Teams for Business / Teams – Microsoft's web-conferencing solution.
- SharePoint Online – Microsoft's organization solution for securely storing, organizing, sharing and accessing your information.
- OneDrive Online – Microsoft's individual solution for securely storing, organizing, sharing and accessing your information.
- Office 365 Online suite. This allows users to install and update the Office suite of tools on up to five devices from the Internet.

The Google Workspace for Education solution is Google's cloud collaboration offering provided out of Google's datacenters. It is comprised of the following:

- Gmail – Google's electronic messaging solution.
- Google Meet – Google's web-conferencing solution.
- Google Drive – Google's individual solution for securely storing, organizing, sharing and accessing your information (Google doesn't have a like-product to Microsoft's SharePoint)
- Google Docs – Used to create and collaborate on online documents. Edit together with secure sharing in real-time and from any device
- Google Forms – Used to create online forms and surveys with multiple question types. Analyze results in real-time and from any device.

## Management Strategy

The KETS Messaging and Directory Services Team centrally manages the Active Directory and provisioning solution responsible for CRUD (creates, updates, deletes) between AD and Office 365. Districts manage those solutions for the Google environment. The backend infrastructures themselves are managed by Microsoft and Google respectively. When districts have issues they have the ability to call a technical service desk employed by KDE. Some issues are escalated to the KETS Messaging and Directory Service Team while many, depending on the issue, will be directed directly to Microsoft and/or Google or their support providers.

# Future Plans

Entra Connect Sync (AADC) functionality will be replaced by Rapid Identity as each district decommissions Active Directory. This will occur over the coming months and will complete for all districts by July 2028.

The KDE provided SMTP relay service will be decommissioned with Active Directory. The replacement solution will be up to each district to implement. Microsoft and Google specific solutions available to districts are communicated in the Active Directory Planning Primer which is distributed to all districts as guidance.

The subsetGAL and Guest account functionality that currently is provided by Entra Connect Sync (O365) and GCDS (Google) from Active Directory will be replaced by Rapid Identity during the AD decommission project. There will be a new source defined as AD will no longer be used.

# KETS Technical Environment Information Document

## KETS Service Desk

## Section 004

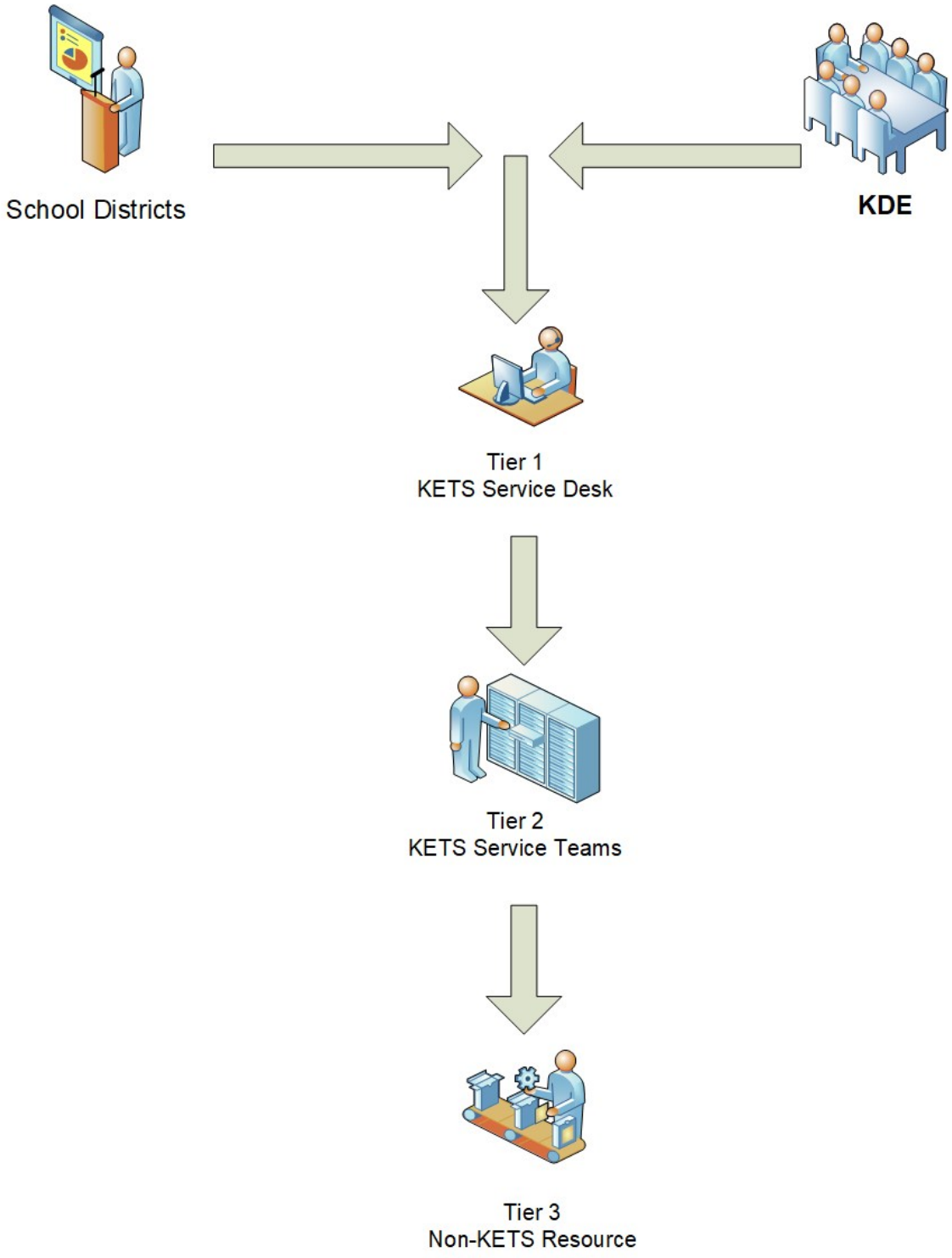
Last Reviewed: 9/16/2026
Last Updated: 2/7/2023

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# Summary

This document provides an overview of the KETS Service Desk Services provided by the Office of Educational Technology.

## Visual Representation



## Description

The KETS Service Desk provides support to both internal and external KETS customers. Internal customers are defined as the Kentucky Department of Education (KDE) including the Kentucky School for the Blind (KSB) and the Kentucky School for the Deaf (KSD) as well as districts (171) and schools (approximate 1,400) throughout the state of Kentucky. The KETS Service Desk also services external customers defined as the general public who need assistance with any public facing technology that KDE provides such as web applications.

The KETS Service Desk resolves technical issues and answers questions on the following platforms and services: messaging, Internet/network connectivity, public facing web applications, internal end-user technology service (KDE the agency only), Active Directory, and network security. Issues are generally resolved within 20 minutes, though more complex issues may take longer. Resolution may entail working directly with a Service Desk analyst for a short time (Tier 1), escalation of an issue to another team within KETS (Tier 2), or by escalation to another non-KETS resource (Tier 3). Examples of a Tier 3 resource may include vendor partners such as Extreme, Microsoft, and McAfee.

Service provided to KDE the agency is often the first level of triage meaning that the Service Desk encounters a wide range of issues varying between simple password resets all the way to workstation reimages. Support provided to the school districts is often more technical in nature as the issues escalated to the KETS Service Desk have already gone through layers of technical support within the school district. However, this varies from district to district depending on the size and availability of IT staff. Issues escalated to the KETS Service Desk by school districts are either issues that can't be solved in the district or issues where the district staff may not have the rights to change something such as DNS entries or firewall configurations.

## Management Strategy

The KETS Service Desk is a process-driven entity and allows for seamless operation with KETS Service Teams. The KETS Service Desk is staffed each business day 7:30 AM – 5 PM Eastern. The KETS Service Desk is the central hub and entry point for accessing technical support for all KETS provided technology.

## Future Plans

KDE plans to continue using this strategy for the foreseeable future.

# KETS Technical Environment Information Document

## District Financial System (Tyler Enterprise ERP, formerly MUNIS)

## Section 005

Last Reviewed: 9/22/2026
Last Updated: 9/22/2026

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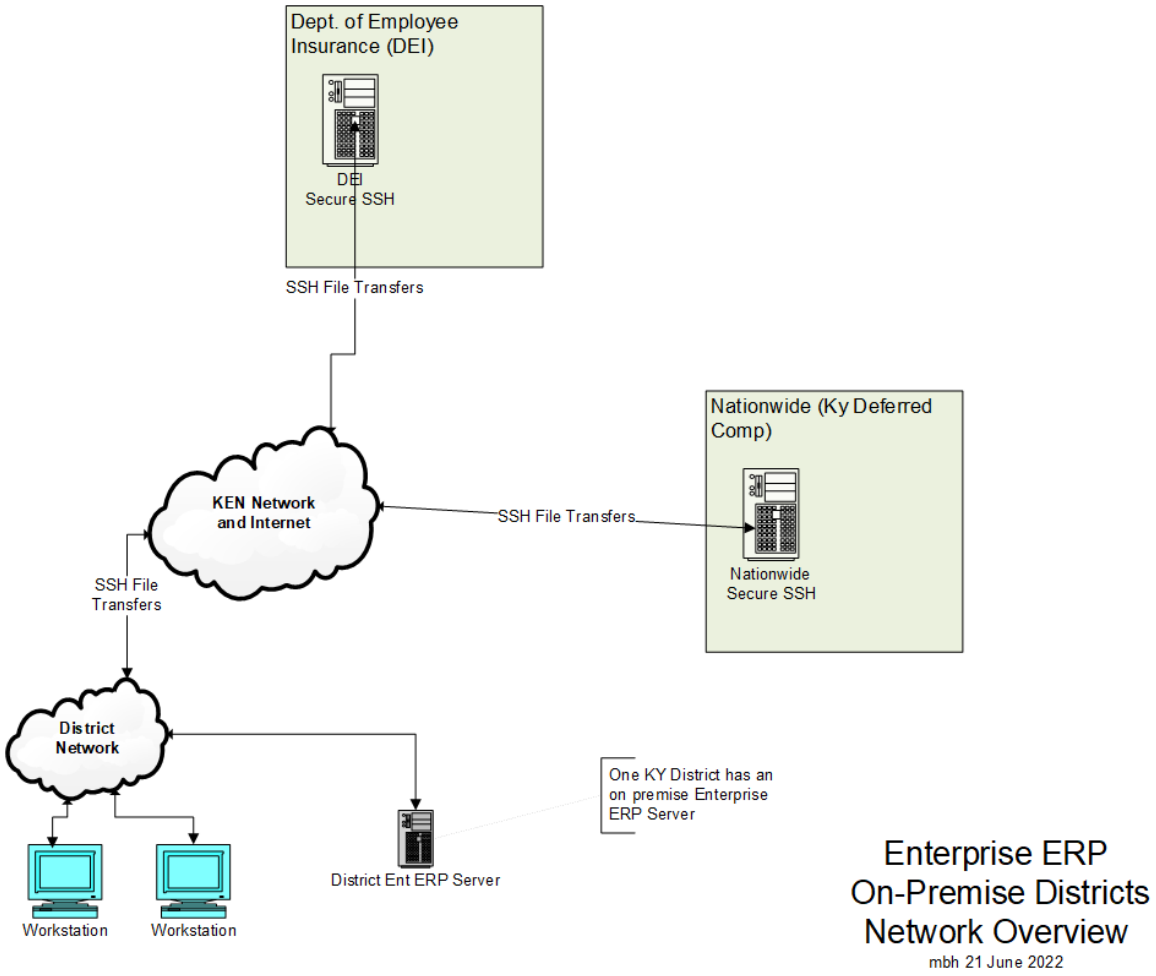
# Summary

This section describes the district financial system, based on Tyler Technologies' Enterprise ERP (formerly known as MUNIS).

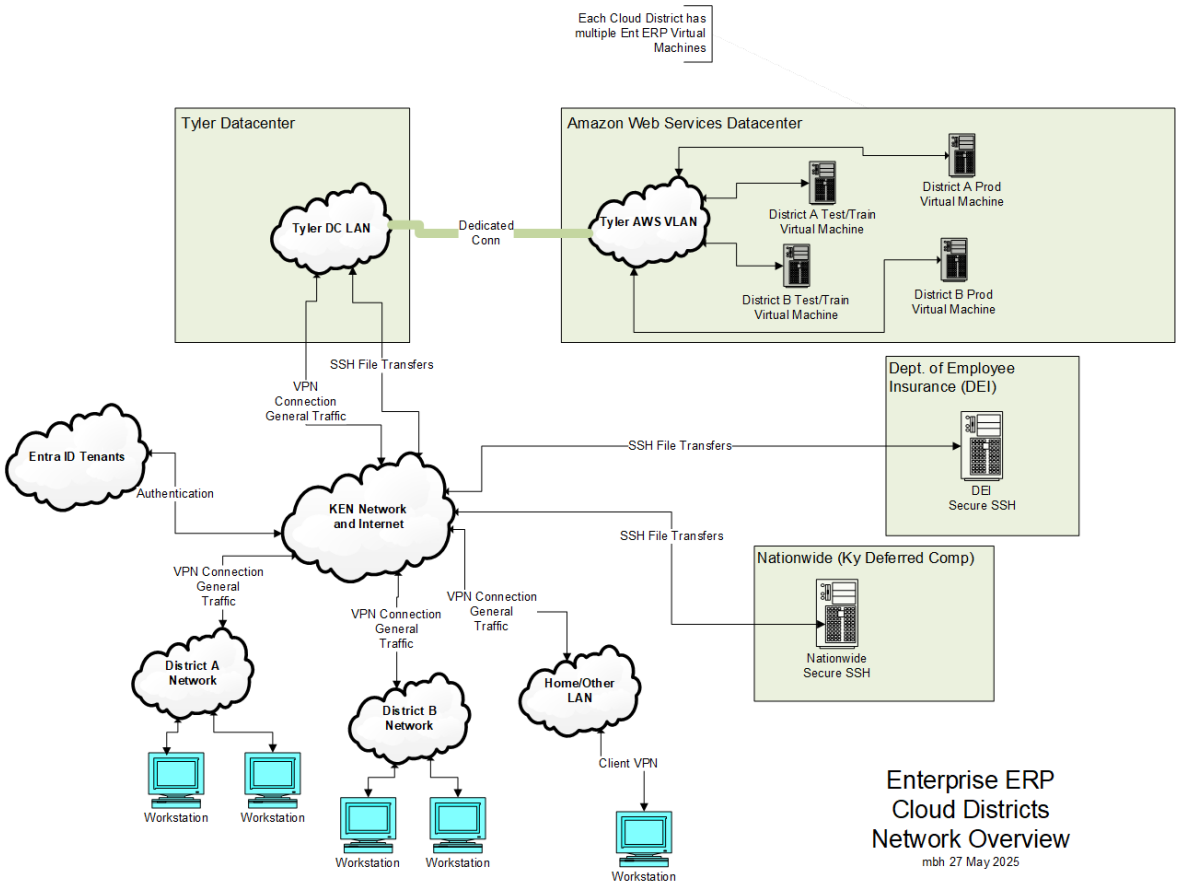
170 districts use a Cloud Service implementation; one district uses on-premise equipment. This document describes both implementations where applicable.

# Visual Representation

## *1.1. On-Premise Network Overview*



## *1.2. Cloud Service Network Overview*




# Description

Enterprise ERP (formerly known as MUNIS), from Tyler Technologies, is the financial system for Kentucky public school districts. For both the single remaining on-premise district and all Cloud districts it runs on Windows servers. Tyler Technologies hosts the Cloud districts in Amazon Web Services (AWS). Most end user access requires connectivity to Tyler's data centers through VPN; each district has a dedicated, Tyler-provided VPN device to provide this connectivity from computers on the district network, and Tyler also provides an end-user VPN service for user access from other locations. Connectivity is through Tyler's data centers even for the systems hosted in AWS.

Most functionality is browser-based, though a few specialized reporting features rely on additional client software. Tyler also maintains automated data transfers to and from the Commonwealth's Department of Employee Insurance and Deferred Compensation vendor Nationwide.

Users are authenticated to both the end-user VPN (when used) and to certain specialized functions using Enterprise ERP-specific credentials.  Users from cloud districts use their Entra ID accounts to authenticate to most Enterprise ERP functions.

## Management Strategy

One remaining on-premise district in Kentucky has an Enterprise ERP server. Users, printers, security and operating system design are managed by the district with Tyler support.

For Cloud districts, users and printers are managed locally, while application updates, databases, security and the operating system are managed by Tyler.

KDE's Office of Finance and Operations provides policy guidance to districts regarding recording and reporting financial activities.  KDE's Office of Education Technology provides oversight of technical operations and guides Kentucky-specific customizations of the system.

## Future Plans

KDE plans to continue using the Tyler EERP solution for the foreseeable future.

Tyler intends to transition away from the VPN-based solution for access to the system during 2026 and 2027.

# KETS Technical Environment Information Document

## The NGKI Network

## Section 006

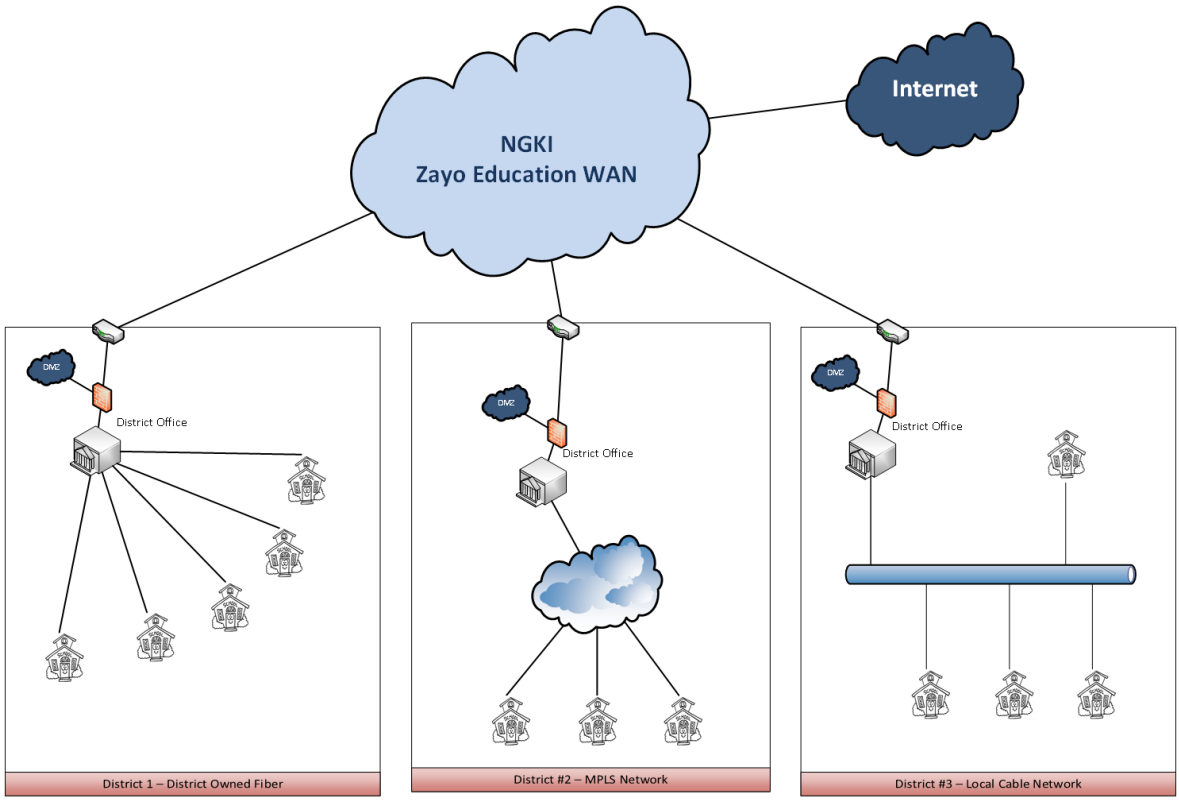
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## Summary

This document provides a brief, high-level view of the layout of the Kentucky Educational Technology System (KETS) networking environment throughout the Commonwealth of Kentucky. This document does not provide vendor-specific information with regard to network components, nor does it provide component-level configuration information.

## Visual Representation




## Description

The Next Generation Kentucky Instructional Network (NGKI) connects more than 1,200 schools across 171 school districts, including the Kentucky School for the Blind and Kentucky School for the Deaf, providing secure access to the Internet and Kentucky Department of Education (KDE) services. The network supports over 1 million devices, serving approximately 100,000 staff members and 650,000 students statewide. NGKI utilizes a high-speed Ethernet backbone provided by Zayo Education, with district connections ranging from 1 Gb/s to 100 Gb/s. KDE provides a managed services environment that includes firewalls, shared services switching, and DNS, DHCP, and IP Address Management (DDI) services, establishing a secure and standardized statewide network infrastructure. District-owned networks connect to the KDE-managed

environment through a designated demarcation point. District facilities, including schools, administrative offices, transportation centers, maintenance facilities, and other support locations, connect to district hub sites using district-owned fiber, managed Ethernet services, or other approved transport technologies. Within each facility, structured cabling and Ethernet switching infrastructure provide connectivity for instructional, administrative, voice, video, wireless, and security systems. Multi-mode fiber is commonly used within buildings, while single-mode fiber is recommended for inter-building campus connectivity. The NGKI architecture delivers a scalable, secure, and highly available networking platform that supports digital learning, operational technology, cybersecurity, and statewide educational services across Kentucky's K-12 community.

## Management Strategy

The Office of Educational Technology, with the assistance of vendor partners, supports, manages, and maintains all centralized KETS shared services and distributed network infrastructure components for all 171 school districts. This includes, but is not limited to, firewalls, VPN servers, shared-service switches, DNS (Domain Name System) services, DHCP (Dynamic Host Configuration Protocol) IP address management services, and other enterprise networking systems that provide secure, reliable, and scalable connectivity across the statewide education network.

Additionally, all hardware components, Leased-Line connectivity, and configuration management for connectivity between the school district’s hub site and the state are funded and managed by OET. OET sets standards for all other network-related components and negotiates contracts on behalf of the school districts with approved vendors. OET also provides design and configuration assistance to school districts on an as-needed basis. School districts are responsible for all networking components and their configuration and management within their own LANs on their side of the KETS Firewall.

## Future Plans

KDE plans to use Zayo Education’s solution for at least the life of the NGKI contract.  IP services, including DNS, DHCP, and related network infrastructure services, are provided separately and KDE plans to use this solution indefinitely.

KDE does not expect any changes to the architecture of NGKI in the near future.

# KETS Technical Environment Information Document

## Security

## Section 007

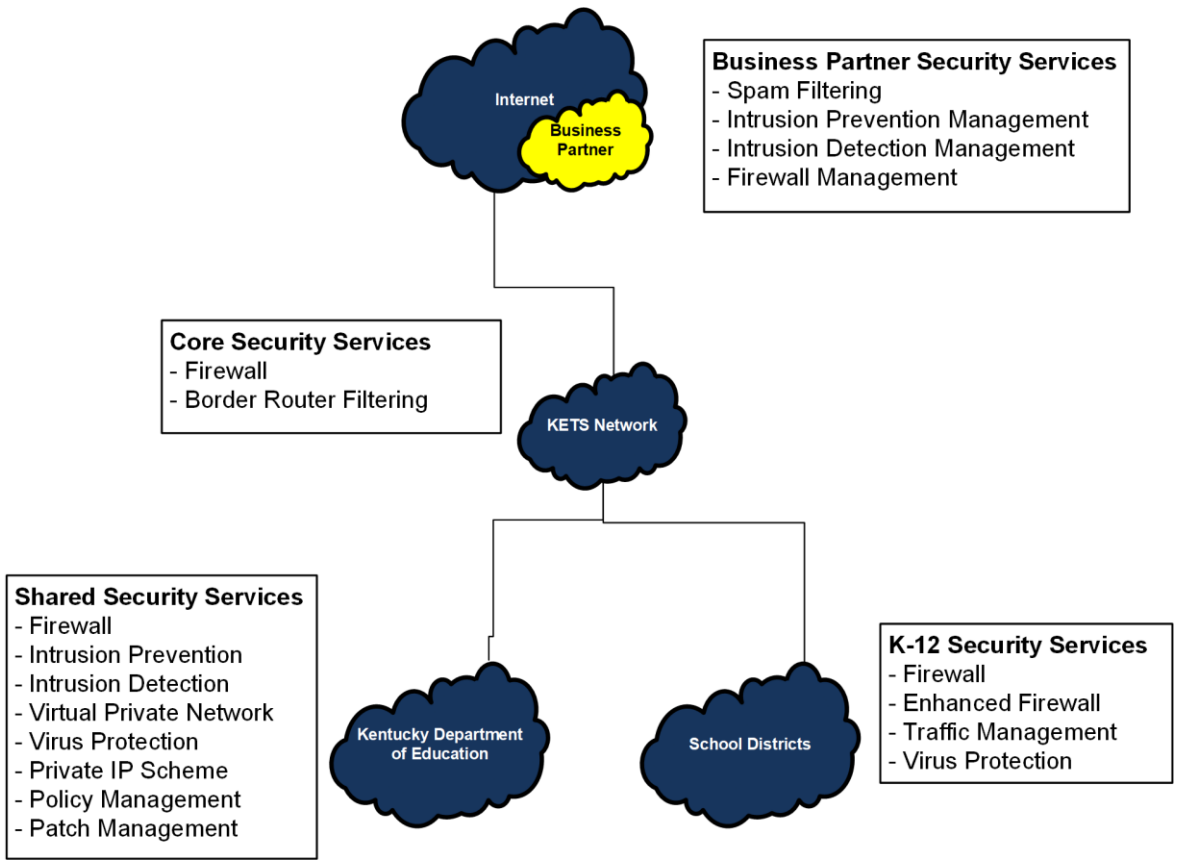
Last Reviewed: 10/15/2026
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## Summary

This document provides an overview of the Network Security Services provided by the Office of Educational Technology (OET) for the Kentucky Educational Technology System (KETS). This document only covers security services supported by the OET Network Security Team and Contracted Network Management Services with ENA (Education Networks of America).

## Visual Representation



# Description

Network Security Services include the following:

1. Intrusion Detection – Systems that passively monitor and detect harmful network traffic or attacks
2. Border Router Filtering – Basic filters placed on border routers which filter out common “noise” before it hits security devices
3. Firewall Services – Systems that provide security of outward facing network connections.
4. Enhanced Firewall – Additional protection for end user devices when connecting to outside networks.
5. SPAM Filtering – Systems that monitor and remove unwanted e-mail sent to the KETS network
6. Intrusion Prevention – Systems that actively look for harmful network traffic or attacks and reset connections as needed
7. Virtual Private Networking – Systems that allow secured access to the KETS Network from outside networks
8. Virus Protection – Virus detection and removal software that is loaded on all workstations and servers in the KETS network
9. Traffic Management – Systems that can either guarantee or limit the amount of traffic of any specific type on the network
10. Certificate Services (Internal usage only) – A root certificate authority tied to the KETS AD forest is established at KDE. Districts wanting to implement certificate services may stand up their own subordinate certificate server to be used for wireless authentication and other certificate related authentication practices required in the district
11. Policy Management – Baseline rule sets for firewalls, virus protection, VPN, and other security-related systems
12. Patch Management – Systems that monitor status of and install patches to operating systems and other software within the KETS network
13. Private IP Scheme – Standardized assignment of Private Internet Protocol addresses to devices within the KETS network, as well as Network Address Translation to allow some of these devices to interact with the Internet

# Management Strategy

Intrusion Detection, Firewall Services, Enhanced Firewall services, SPAM Filtering, Intrusion Prevention, Traffic Management, and Virtual Private Networking are all managed by a combination of the OET Network Security Team, Microsoft Office365 and Contracted Network Management Services (ENA). Policy Management is managed by a combination of the OET Network Security Team and relevant vendors. Border Router Filtering is cooperatively managed by the OET Network Security Team and ENA; ENA Network Services handle daily maintenance and updates while the OET Network Security Team

handles defining policies. Virus Protection, Patch Management, and Private IP are supported by both the Network Security Team and local district support. Certificate services are granted to districts' subordinate certificate servers through KDE. Districts issue, expire and reclaim certificates to their end users through their own support local support services.

## Future Plans

KDE plans to use the ENA solution at least for the life of the NGKI contract.

KDE expects several changes to the architecture of KETS Network Security Services in the future. These changes will include the approach to virus (endpoint) protection and patch management. These changes will be documented here as they are developed and deployed.

# KETS Technical Environment Information Document

# Kentucky Student Information System (Infinite Campus)

# Section 008

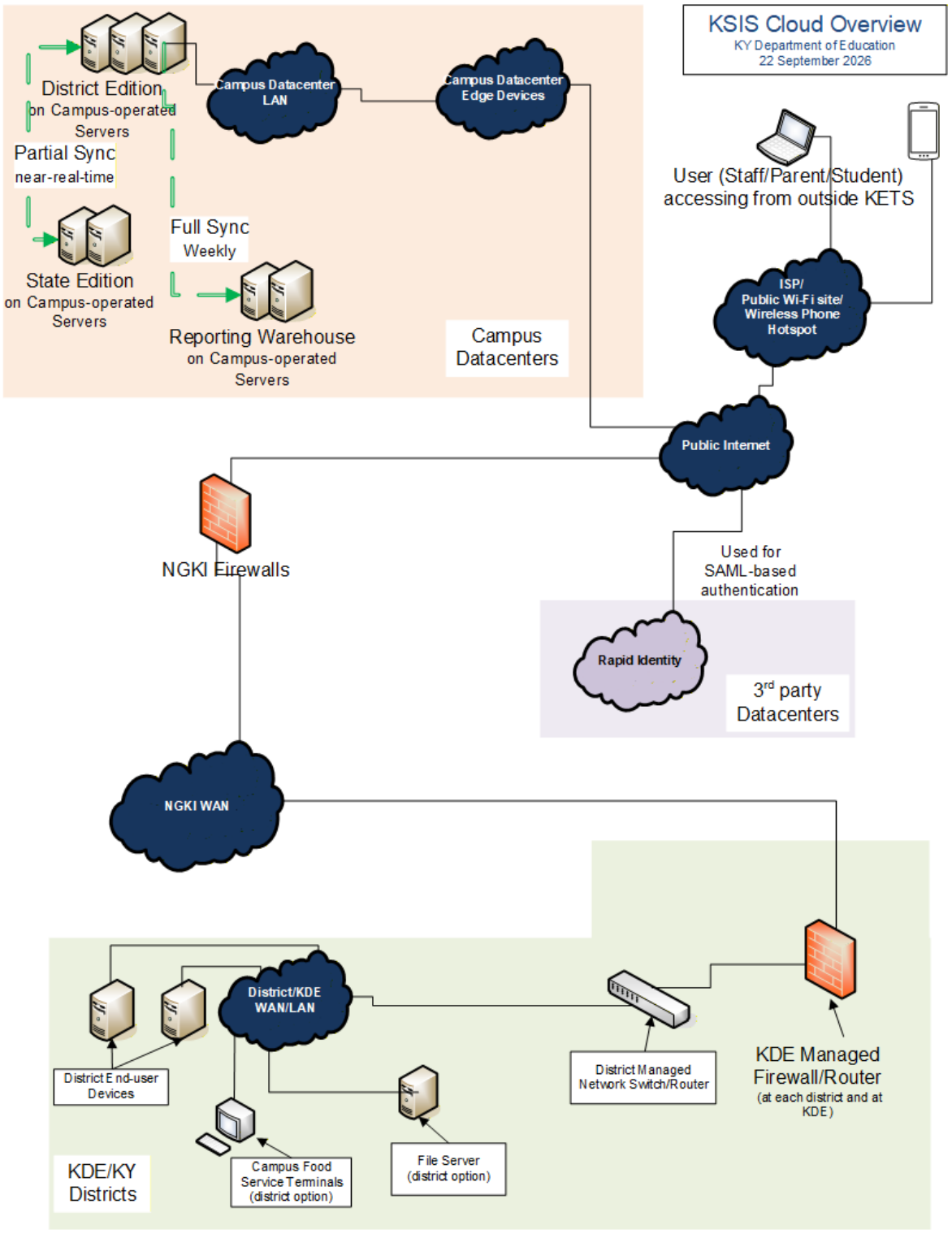
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## Summary

The Kentucky Student Information System (KSIS), based on Infinite Campus, is the system of record for most student-level data for all public school districts across Kentucky and allows districts and KDE to create reports for decision-making purposes. KSIS is cloud-based (hosted by Infinite Campus) for all districts and for the state-level components using a Software as a Service model.

## Visual Representation



# Description

Infinite Campus provides the KETS standard student information system. This system includes three main components:

- Infinite Campus District Edition
- Infinite Campus State Edition
- State Reporting Warehouse

Plus several optional (per-district) components:

- Food Service
- Messenger with Voice
- Campus Learning Suite
- Online Registration
- Campus Analytics Suite

**Infinite Campus District Edition** is the application used by school and district staff – teachers, administrators, and support staff. It tracks data such as attendance, grades, behavior, student demographics, schedules, fees, instructional plans, and health. It produces numerous reports and constantly synchronizes certain data elements with the centralized Infinite Campus State Edition installation. As a web-based application it is accessible anywhere in the district and from the general Internet. Campus Student and Campus Parent interfaces, with accompanying mobile apps, are available for those populations to use.

**Infinite Campus State Edition** is the application used by KDE and other state-level staff. It automatically receives certain data elements from each District Edition installation for reporting purposes. It is also used to manage district, school, and in rare cases (such as duplicate student ID cleanup) student records.

The **State Reporting Warehouse** is a single SQL Server database instance which contains copies of all the Infinite Campus District Edition databases, updated weekly. This database is used as the source for reports that required detailed data which are not synchronized to the Infinite Campus State Edition application.

**Infinite Campus Food Service** is an optional module that manages cafeteria menus and links with Point of Sale devices to process food service transactions.

**Infinite Campus Messenger with Voice** is an optional module that places voice phone calls and/or SMS (text) messages to staff, students and/or parents based on triggers (such as absences) or manual input (such as to announce special events).

Most districts have integrated their Campus District Edition installations with their Identity Automation Rapid Identity instance using the SAML protocol so that staff and/or students can log into Campus using credentials from those external systems.

## Management Strategy

The Kentucky Student Information System based on Infinite Campus is operated as a service provided by Infinite Campus. Infinite Campus owns, monitors and administers all equipment other than Point of Sale terminals. KDE (through a contracted organization) is responsible for the network infrastructure used by districts to connect to the Internet, while districts are responsible for their local networks, client devices, and Point of Sale terminals.

## Future Plans

KDE plans to continue using Infinite Campus systems indefinitely.