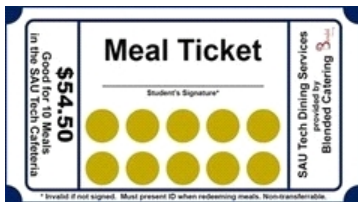




Campus Card Technology Evolution

1960's



Meal Plan Punch Cards

Campus Card: Bar Code
Weekly Dining Cards
Limited ID Cards

ID Offices: Security Office, Food Service Office

Airline Tickets: Paper Tickets
(Travel Agencies, Airline Retail Offices, Airport Ticket Counters)

1970's



Department ID Cards

Campus Card: Bar Code, OCR, Mag Stripe (LoCo)
Department Employee Cards
Department Charging Cards

ID Offices: Security Office, Food Service Office

Airline Tickets: Multi-Part Paper Tickets
(Travel Agencies, Airline Retail Offices, Airport Ticket Counters)

1980's



Identification Card Stickers

Campus Card: Bar Code, Mag Stripe (LoCo, HiCo)
Semester Stickers (Registration Verification)
Semester Stickers (Payment Verification)
Department ID Stickers
Photo Identification Card Photographs (B/W)
Exterior Residence Hall Door Access Systems (Off/Line Hotel Locks)

ID Offices: Registrar, Security Office, Food Service Office

Airline Tickets: Single-Part / Multi-Part Paper Tickets
(Travel Agencies, Hotels, Airline Offices, Airport Ticket Counters)

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Campus Card Technology Evolution

1985



The "All-Campus Card"

Campus Card: Bar Code, Mag (1-LoCo, 1-HiCo), Prox
Single Multi-Application Campus Card (Duke University)
Durable 4-Year Campus Cards • Cashless Campus
Non-Erasable HiCo Magnetic Stripe

Exterior Residence Hall Door Access Systems (On/Line Systems)
Campus Card Vendor Websites

ID Offices: Campus Card Offices • One Stop Shopping

Airline Tickets: Paper Tickets
(Airline Ticket Brokers, Airline Retail Offices, Airport Counters)

1990's



Rapid Growth of Scaleable Technology

Campus Card: Bar Code, Mag (HiCo), Prox, Chip (Contact)
Black/White Portable Card Production Printers (On-Site)

Shared Library, ERP and Campus Card Systems (Regional)
On/Line vs. Off/Line Card System Adopters
Campus Card Banking Partnerships
Exterior Residence Hall Door Access (Centralized On/Line Systems)

Campus Card Offices: Centralized; Satellite Offices

Airline Tickets: Paper Tickets (w/Magnetic Stripe)
(Airline Ticketing Website, Airline Ticket Brokers)

2000's



Internet System Technology (Y2K)

Campus Card: Bar Code, Mag, Prox, Chip (Contact, Contactless)
Color / Faster Portable Card Production Printers

Ethernet Networks & Ethernet-Compatible Readers & Printers
Third-Party Compatible Card Readers Soar (Door Access, Banking)
Web-based Campus Card System Report Distribution
Off/Line Readers and Kiosks Replaced with On/Line Devices
Institution-based Campus Card Websites
Residence Hall Interior Door Readers (Off/Line Room Doors; FOBs)

Campus Card Offices: Business Centers; Patron Info (On/Line)

Airline Tickets: Paper Tickets (w/Mag), eTickets
(Airline Websites, Online Ticket Broker Websites)

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Campus Card Technology Evolution

2005



Cloud-Based Systems Adoption

Campus Card: Bar Code, Mag, Prox, Chip (Contactless) | FOBs
Contactless Technology Soars (Multiple Platforms)

Vendors Provide Outsourced Campus Card Websites
Cloud-based Campus Card Systems Escalate
Mobile Technology Drives Patron Account Access
Personal Webpages & Social Media Emerge
Mobile Technology Emerges Beyond Cellphones
Residence Hall Interior/Exterior Door Readers Quadruple
Campus Card Offices: Business Centers; Patron Apps (On/Line)
Airline Tickets: eTickets
(Airline Websites, Online Broker Websites, Airline Kiosks)

2015's



Smartphone & Virtual Technology Soars

Campus Card: Mag Stripe, Chip (Contactless), Prox, Bar Code
Patron Photo Upload Becomes Standard System Module
Smartphones Facilitate System Access By Mobile Millennials
Campus-Wide Migration: Exterior / Interior eDoor Access
Residence Hall Smartphone Access Gains Popularity
Vending Adopts Contactless (Laundry Applications Decline)
Community Colleges Dominate Cardless Campuses
Campus Card Offices: IT Help Desks; On/Line (Apps)
Airline Tickets: eTickets & Smartphones
(Online Broker Websites, Airline Websites, Airport Kiosks)

2020



eDigital Patron Credentials

Campus Card: Smartphone | Mag, Chip (Contactless)
Plastic Card Production Outsourced (Service Bureaus)
Wearable Credentials Accepted At Most Venues
Campus Card Functionality Managed Via Mobile Apps
Residence Halls Convert to Smartphone Access (All Doors)
Shared Cloud-Based Campus Card Systems Become Standard
National Adoption of the Digital Wallet
Campus Card Offices: On/Line (only); National Help Desks
Airline Tickets: Smartphones, Mobile Credentials, eTickets
(Online Kiosks, Airline Websites, Airport Kiosks)

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