Top Ten Applications for MFA in Higher Education



A List initially provided/seeded by Joe St. Sauver, of Internet2 and the University of Oregon

"Top Ten" Applications for MFA in Higher Education

- 1. Privileged Access ("root", "Admin," "System," or similar privileged access) to large or critical system: examples of such systems include campus ERP systems with financial data or student records; identity management systems; centralized backup systems; DNS servers; DHCP servers; campus web cache boxes, etc.
 - · Typical job titles of MFA user: system administrator, database administrator, DNS administrator
- 2. Core Network Devices: "Enable" access to core routers and similar privileged access to other key network devices (including firewalls and other network security appliances with traffic visibility)
 - Typical job titles of MFA user: network engineer, network security engineer
- 3. Physical access to critical facilities [e.g., machine rooms, telecom switch rooms, colo facilities, other high value assets]
 - Typical job titles of MFA user: facilities engineer, computer operator, etc.
- 4. Access to institutional financial accounts (commercial bank accounts, institutional brokerage access, etc.); note that this will typically use a credential specified by the bank, brokerage, etc., not by campus
 - Typical job titles of MFA user: campus business officer, portfolio administrator, financial manager
- 5. Access to HIPAA covered health data (teaching hospital patient records, on campus health center records, testing center records, etc.)
 - Typical job titles of MFA user: doctor, hospital/health center administrator, insurance billing specialist, etc.
- 6. Financial Aid data: because of the Department of Education special push in this area, Financial Aid administrators get a special call out (e.g., Department of Education is pushing 2FA hard tokens to all financial aid admins)
- 7. High Performance Computing Resources: many so-called supercomputer centers require 2FA after the unfortunate Stakato attacks.
- 8. VPN access from off campus (punching through a campus perimeter firewall, or accessing a specially sensitive internal network)
- 9. Campus Messaging (e.g., in an effort to preventing phishing and subsequent spam runs, resulting in widespread phishing)
- 10. Google (pushed by Google, rather than the campus)

Plus one more (not strictly two factor, think more "alternative factor to traditional passwords"):

11. Automated (machine-to-machine) connections (e.g., for things like scheduled bulk data transfers) [think ssh pre-shared key access]