VirginiaTech
Invent the Future

Two-Factor Authentication Update

Scott F. Midkiff

Vice President for Information Technology and Chief Information Officer
Virginia Tech
midkiff@vt.edu

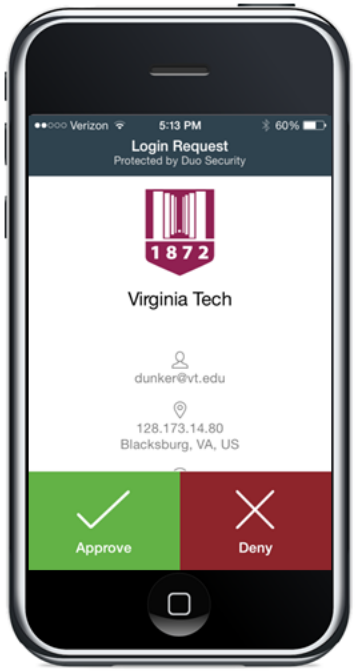
Two-factor Authentication Town Hall Meeting ● December 17, 2015

VirginiaTech
Invent the Future

IT security is more important than ever. *Two-factor authentication* will be a significant step forward, but it is far from all we need to do.

"Two-factor authentication (also known as **2FA**) is a technology patented in 1984 that provides identification of users by means of the combination of two different components. These components may be something that the user knows, something that the user possesses or something that is inseparable from the user." *[https://en.wikipedia.org/wiki/Two-factor_authentication, accessed 11/3/2015]*

We need to move from two-factor authentication being the exception to the norm and one-factor authentication being the exception.



VirginiaTech
Invent the Future

The mantra is "*Everyone, Everything.*" How do we get there? Can we get there?

- We do not expect to get all the way to "*Everything*," but we need to make two-factor the default and one-factor the exception
- New "Login" authentication service supports two-factor authentication
  - Offers option to register devices
  - Users can defer, *for now*
- The transition requires collaboration across the university
  - Central IT – Protect central IT's most critical data and resources and be a model
  - Rules of engagement – For any unit connecting to critical systems in central IT
  - University policy – In collaboration with data trustees and driven by data sensitivity and criticality of resources
  - Best practices – Facilitating adoption, maintaining usability, understanding data sensitivity

VirginiaTech
Invent the Future

We need to focus on university priorities.

Urgency	CAS	Windows	Other
High	• Central IT CAS applications	• Accounts with elevated privileges	
Medium	• Other CAS applications	• Web applications • Servers with sensitive data	• VPN
Low		• Other servers • Desktops	• Other

VirginiaTech
Invent the Future

The timeline has to be adaptive, especially for later transitions.

- Completed
  - SAML-based (external and federated) services use new Login service
  - Central Windows domain controllers secured with two-factor authentication
- Upcoming
  - Hokie SPA and many other Banner web services expect to use new Login service beginning in early January
  - Canvas and Scholar learning management systems expect to use new Login service beginning in early January
  - Other enterprise-level web services will follow in early spring
- Testing is available for departmental web-based applications – IT staff will help with technical changes and communication
- Anticipated date for all web-based services to require two-factor is July 2016