

From 0 to 100% Participation* in Google 2-Step Verification in 30 Days

*of Faculty and Staff

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Luther College Information Technology Services

Background

Our Email Environment

- Google Apps for Education (Now G Suite For Education) users since 2008
- We allow Alumni to keep their accounts after graduation

Background

Problems

- Too many phishing messages
- Phishing message becoming more believable
- Phishing messages coming from our accounts

Background

Solution

- 2-Step Verification
- Eliminates attacker's ability to use compromised credentials to access a user's account

Background

Options

- Google's built-in 2-Step Verification
- 3rd party solution

Pro's and Con's

Google's built-in 2-Step Verification

Pro's

- Built-in and ready to go. It just needs to be turned on
- Free
- Many options available to receive the 2-Step codes. Enough to meet the needs of any user

Con's

- Only solving the problem for G Suite
- You get what Google built, not a lot of customization possible

3rd party solution

Pro's

- Potential to integrate with many different systems
- Many options available to receive the 2-Step codes. Enough to meet the needs of any user
- Potentially more customizable

Con's

- Longer set-up process
- It's not Free
- None that we have found are directly supported by our Ellucian Colleague our ERP System

Our Plan

November 2016

Deadlines to Enable 2-Step

- **December 1, 2016:** Faculty, Staff, Emerita and general office accounts
- **February 1, 2017:** Students and Student Organizations
- **March 1, 2017:** Alumni with Luther email accounts

Our Plan

November 2016

Background

- Implement 2-Step with ITS Staff
- Introduce the idea to College Cabinet and convince them to establish this as a new requirement

Our Plan

November 2016

Preparation

- Recognize Google enforces 2-Step verification by sub organization
- Move users into different sub organizations by user type (faculty, staff, etc)

Our Plan

November 2016

Preparation

- Implement 2-Step without use of any physical authentication keys

Considerations

Choosing 2-Step Methods

- Phone required to start
- Users without cellphones
 - Google Authenticator on computer
 - Voice phone calls
 - Backup codes

Considerations

Traveling Abroad

- Google Authenticator
 - On computer
 - On cellphone
- Backup Codes
 - Can only print 1 set of 10 at a time
 - May need to generate more while still traveling

Implementation

Faculty/Staff/Students

All Campus Notification

- Email sent Nov. 11, 2016
- Campus newsletters
- “All-staff” meetings
- Department Heads meeting

Implementation

Staff

Office Visits

- Asked Offices to invite us to the end of an upcoming staff meeting
- 1-1 help after meeting
- 10+ visits held

Implementation

Faculty/Staff

Drop-in Sessions

- 15 Total Sessions
- Held Nov. 15 to Nov. 29
- Ranged 30 min to 120 min
- Located in various buildings
- Scheduled at different times

Implementation

All users

Self-Service Info

- 2-Step FAQ on website
- Step-by-Step guides
 - Cellphone version
 - non-Cellphone version

Implementation

Faculty/Staff/Students

Digital Signage

- Displayed on all digital signs
- Faculty and Staff notice Nov. to Dec. 2
- Student notice Jan. to Feb. 2

Tip of the Month

2-Step Verification

Luther email accounts will now require Google 2-Step Verification.

Deadlines to enable:

- Faculty and Staff: Dec. 1**
- Students: Feb. 1**

Visit the Tip of the Month site for more information.



Google 2-Step Verification Deadline



**Students and
student
organizations,
enable 2-Step
Verification
by Feb. 1.**

Implementation

Faculty/Staff

Additional Methods

- Emails to all not yet enrolled, 10 days prior with session locations and times near them
- Emails to all not yet enrolled, 3 days prior
- Phone calls 1 and 2 days prior

Implementation

Students

Students

- Email to all students Nov. 11
- Caf tabling in Dec. and Jan.
- Email to students traveling abroad in Jan. sent Dec. 5
- Encouragement at login started Jan. 3
- Signage in Residence Halls
- Email to students Jan. 30

Implementation

Alumni

- ## Alumni
- Encouragement at login started Dec. 23
 - Email to alumni Dec. 27
 - Google started sending weekly emails Dec. 27
 - Email to alumni Feb. 21
 - Email to alumni Jun. 1
 - Delete unrolled after Jun. 30

Google's Help

Encouragement at Login

- When an enforcement deadline is made, Google helps encourage users to enable 2-Step Verification
- Users can enroll now or later

Google's Help

Users see this on every login:



Don't Get Locked Out



Your domain will soon enforce 2-Step Verification to ensure better account security.

This policy will be enforced from Dec 1, 2016 which means that you will be asked to enter a one time password when signing in.

To avoid being locked out of your account please enroll into 2-Step Verification now.

[Learn more about 2-Step Verification.](#)

Enroll

Later

Google's Help

Surprises Along the Way

- Google emails weekly leading up to the deadline
- Google emails daily the last 5 days prior to the deadline

Enforcement

Users Missing the Deadline See
this on login:



Couldn't sign you in

Your organization requires 2-Step
Verification on this account.

Contact your system administrator for
more information on setting it up.

[Sign in with a different account](#)

Enforcement

Suspending Users

- Manually suspended those not meeting the deadline
- Prevents forwarding from continuing to function

Enforcement

Fixing Suspended Users

- Manually unsuspend
- Generate backup codes
- Provide backup code to user
- Assist in setting up 2-Step

Reporting Progress

Google Spreadsheet

- Started manually updating and graphing progress



2-Step Adoption Progress



File Edit View Insert Format Data Tools Form Add-ons Help All changes saved in Drive

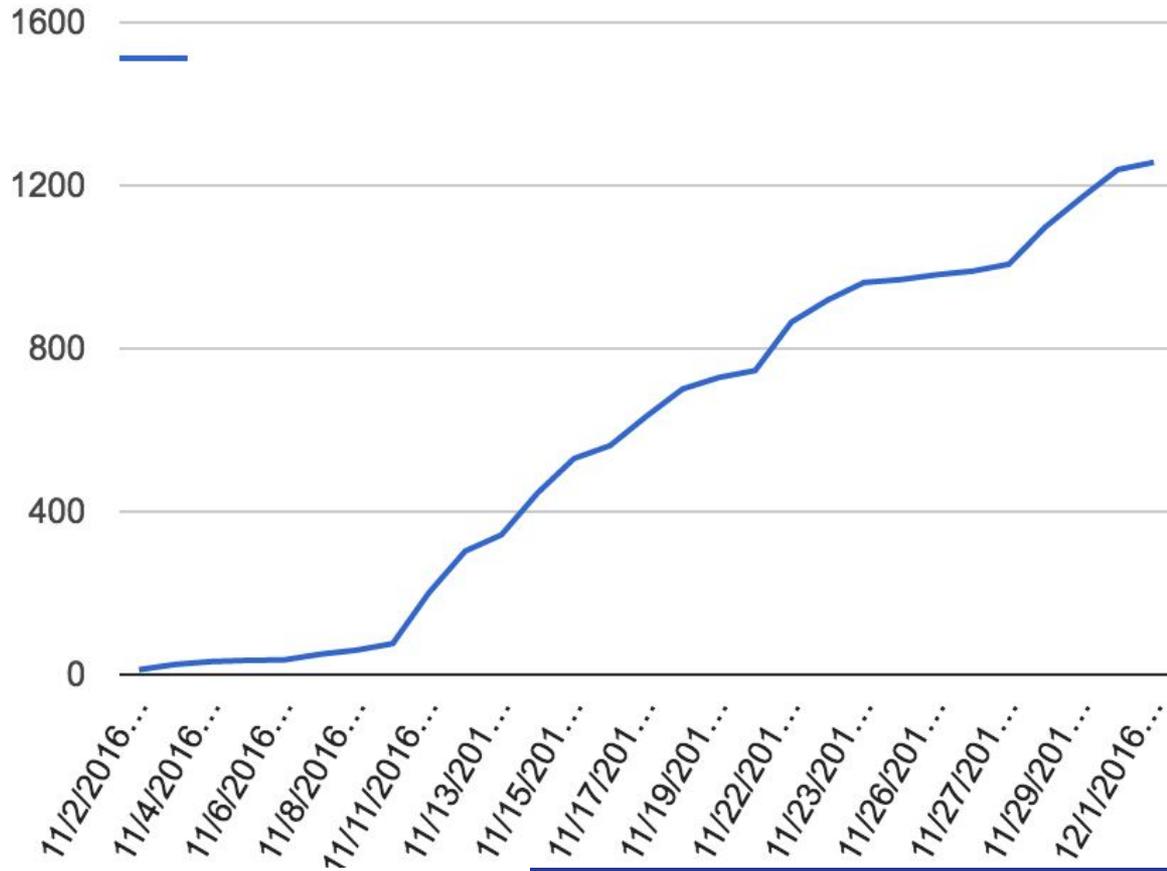
\$ % .0 .00 123 ▾
Arial ▾
10 ▾
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Timestamp

	A	B	C
1	Timestamp	Count	Events of the Day
4	11/2/2016 0:00:00	12	Introduced at ITS General Meeting
5	11/3/2016 13:00:00	25	
6	11/4/2016 13:00:00	32	
7	11/5/2016 13:00:00	35	
8	11/6/2016 13:00:00	36	
9	11/7/2016 0:00:00	50	Met with Financial Services
10	11/8/2016 13:00:00	60	Met with Financial Aid Office Met with HR Office
11	11/9/2016 13:00:00	76	Met with Facilities Services Management
12	11/11/2016 17:13:00	201	Met with Alumni/Development Office All Campus Email Message Sent
13	11/12/2016 20:45:00	303	
14	11/13/2016 18:35:00	343	
15	11/14/2016 16:03:00	446	Met with Library Staff Met with Admissions Staff
16	11/15/2016 17:40:00	530	Google 2-Step Verification Dropin Session
17	11/16/2016 17:44:00	562	Staff Meeting #1
18	11/17/2016 19:02:00	634	Staff Meeting #2 Met with Safety Comittee Messages at Login begin for Faculty and Staff
19	11/18/2016 14:47:16	701	Met with Registrar Staff 2 Google 2-Step Verification Open Sessions
20	11/19/2016 19:45:00	729	
21	11/20/2016 23:15:00	746	

2-Step Adoption Progress for Faculty and Staff



Automating

Google Apps Manager

<http://git.io/gam>

- Used to move users to sub organizations
- Used to update progress in spreadsheet

Automating

Google Apps Manager

<http://git.io/gam>

- Data is 1-3 Days old
 - OK for getting a sense of progress
 - Not OK as a data source for contacting users

New Users

New Users

- Need a method to enroll new users after enforcement
- How you'd think it should work:

New user is forced to set up 2-Step on first login as their only option

What Google Built

New Users



Couldn't sign you in

Your organization requires 2-Step Verification on this account.

Contact your system administrator for more information on setting it up.

[Sign in with a different account](#)

New Users

New Users

- Google has accepted a feature request to force a new user to set up 2-Step on first login
- Until they deliver we need another option

New Users

Option 1

- Create users in a sub organization where 2-Step is not enforced
- Find a way to manually encourage them to turn on 2-Step
- Move users to a sub organization where 2-Step is enforced after they've enabled it

New Users

Option 2

- Create users in a sub organization where 2-Step is enforced
- Use GAM to generate a backup code for user
- Provide user name, password and backup code along with instructions to enable 2-Step on first login

New Users

Our Solution for Students

- New students created in ou=IncomingStudent which has a fall enforcement date
- Script checks for users that have enabled 2-Step and moves them to ou=Students which is past its enforcement date

New Users

Our Solution for
Faculty/Staff

- New faculty/staff created in ou=/ which doesn't have an enforcement date
- Staff manually contact new faculty/staff and talk to them about enabling 2-Step once enabled, the users are manually moved to ou=Faculty or ou=Staff

Success!!

Current Status

- ★ Faculty - DONE
- ★ Staff - DONE
- ★ Emerita - DONE
- ★ Offices - DONE
- ★ Students - DONE
- ★ Student Orgs - DONE
- ★ Alumni - DONE-ish
- ★ New Stu/Fac/Stf - DONE-ish

Questions?

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