

CONFIDENTIAL

Intrusion Report for CDC

Iowa State University
TEAM 5

VERSION 12:00PM

Table of Contents

Executive Summary	3
Server Reporting	3
Firewall Server Report (Reporter: Stefan)	3
Mail Server Report (Reporter: Stefan)	3
AD Server Report (Reporter: Megan)	3
File Server Report (Reporter: Daniel)	4
DNS/NTP Server Report (Reporter: Daniel)	4
RDP Server Report (Reporter: Logan)	4
WWW Server Report (Reporter: Megan)	4
Social Engineering/Intelligence Report	5

Executive Summary

The purpose of Intrusion Reports is to inform White Team of any detected intrusion attempts. Detailed in this document is descriptions of all attempted attacks/hacks/intrusions on any of our servers within our network. Screenshots and raw log data pertaining to any abnormalities will be complemented with explanations. Steps taken to mitigate attacks, if determined that an attack is imminent, occurring, or passed will be highlighted in this document.

Server Reporting

Firewall Server Report (Reporter: Stefan)

Time	Event	Description and evidence
	N/A	Nothing to report We did not see much activity in the firewall logs against the firewall server itself. We did see the red team attempt to access protected directories as well as scan for potential vulnerabilities on our servers.





























































2017-04-01 15:07:43	2	TCP	Attempted Information Leak	10.10.20.238 Q ⊕	52435	10.0.50.70 Q ⊕	5818	1:2002910 ⊕ ✖	ET SCAN Potential VNC Scan 5800-5820
2017-04-01 15:07:42	2	TCP	Attempted Information Leak	10.10.20.238 Q ⊕	51907	10.0.50.70 Q ⊕	80	1:2009362 ⊕ ✖	ET WEB_SERVER /system32/ in Uri - Possible Protected Directory Access Attempt
2017-04-01 15:07:42	2	TCP	Attempted Information Leak	10.10.20.238 Q ⊕	51907	10.0.50.70 Q ⊕	80	1:2009362 ⊕ ✖	ET WEB_SERVER /system32/ in Uri - Possible Protected Directory Access Attempt
2017-04-01 15:07:42	2	TCP	Attempted Information Leak	10.10.20.238 Q ⊕	51907	10.0.50.70 Q ⊕	80	1:2009362 ⊕ ✖	ET WEB_SERVER /system32/ in Uri - Possible Protected Directory Access Attempt
2017-04-01 15:07:42	3	TCP	Unknown Traffic	10.10.20.238 Q ⊕	51907	10.0.50.70 Q ⊕	80	119:18 ⊕ ✖	(http_inspect) WEBROOT DIRECTORY TRAVERSAL
2017-04-01 15:07:31	3	TCP	Unknown Traffic	10.10.20.238 Q ⊕	49715	10.0.50.70 Q ⊕	80	119:31 ⊕ ✖	(http_inspect) UNKNOWN METHOD
2017-04-01 15:07:26	2	TCP	Attempted Information Leak	10.10.20.238 Q ⊕	50061	10.0.50.70 Q ⊕	5901	1:2002911 ⊕ ✖	ET SCAN Potential VNC Scan 5900-5920
2017-04-01 15:07:22	1	TCP	Web Application Attack	10.10.20.238 Q ⊕	49715	10.0.50.70 Q ⊕	80	1:2002677 ⊕ ✖	ET SCAN Nikto Web App Scan in Progress
2017-04-01 15:07:07	2	TCP	Attempted Information Leak	10.10.20.238 Q ⊕	63660	10.0.50.70 Q ⊕	80	1:2009361 ⊕ ✖	ET WEB_SERVER cmd.exe In URI - Possible Command Execution Attempt

Mail Server Report (Reporter: Stefan)

Time	Event	Description and evidence
	N/A	Nothing to report

[illegible]

AD Server Report (Reporter: Megan)

Time	Event	Description and evidence																																																																																																									
	Nothing to Report	<table><tr><th>Keywords</th><th>Date and Time</th><th>Source</th><th>Event ID</th><th>Task Category</th></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:58 PM</td><td>Microsoft Windows security auditing.</td><td>5140</td><td>File Share</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:52 PM</td><td>Microsoft Windows security auditing.</td><td>4634</td><td>Logoff</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:52 PM</td><td>Microsoft Windows security auditing.</td><td>4624</td><td>Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:52 PM</td><td>Microsoft Windows security auditing.</td><td>4672</td><td>Special Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:38 PM</td><td>Microsoft Windows security auditing.</td><td>4634</td><td>Logoff</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:38 PM</td><td>Microsoft Windows security auditing.</td><td>4624</td><td>Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:38 PM</td><td>Microsoft Windows security auditing.</td><td>4672</td><td>Special Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:38 PM</td><td>Microsoft Windows security auditing.</td><td>4634</td><td>Logoff</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:38 PM</td><td>Microsoft Windows security auditing.</td><td>4624</td><td>Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:10:38 PM</td><td>Microsoft Windows security auditing.</td><td>4672</td><td>Special Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:09:52 PM</td><td>Microsoft Windows security auditing.</td><td>4634</td><td>Logoff</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:09:52 PM</td><td>Microsoft Windows security auditing.</td><td>4624</td><td>Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:09:52 PM</td><td>Microsoft Windows security auditing.</td><td>4672</td><td>Special Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:09:06 PM</td><td>Microsoft Windows security auditing.</td><td>4663</td><td>File System</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:09:06 PM</td><td>Microsoft Windows security auditing.</td><td>4663</td><td>File System</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:08:52 PM</td><td>Microsoft Windows security auditing.</td><td>4634</td><td>Logoff</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:08:52 PM</td><td>Microsoft Windows security auditing.</td><td>4624</td><td>Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:08:52 PM</td><td>Microsoft Windows security auditing.</td><td>4672</td><td>Special Logon</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:07:52 PM</td><td>Microsoft Windows security auditing.</td><td>4634</td><td>Logoff</td></tr><tr><td> Audit Success</td><td>8/18/2010 8:07:52 PM</td><td>Microsoft Windows security auditing.</td><td>4624</td><td>Logon</td></tr></table>	Keywords	Date and Time	Source	Event ID	Task Category	 Audit Success	8/18/2010 8:10:58 PM	Microsoft Windows security auditing.	5140	File Share	 Audit Success	8/18/2010 8:10:52 PM	Microsoft Windows security auditing.	4634	Logoff	 Audit Success	8/18/2010 8:10:52 PM	Microsoft Windows security auditing.	4624	Logon	 Audit Success	8/18/2010 8:10:52 PM	Microsoft Windows security auditing.	4672	Special Logon	 Audit Success	8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4634	Logoff	 Audit Success	8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4624	Logon	 Audit Success	8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4672	Special Logon	 Audit Success	8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4634	Logoff	 Audit Success	8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4624	Logon	 Audit Success	8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4672	Special Logon	 Audit Success	8/18/2010 8:09:52 PM	Microsoft Windows security auditing.	4634	Logoff	 Audit Success	8/18/2010 8:09:52 PM	Microsoft Windows security auditing.	4624	Logon	 Audit Success	8/18/2010 8:09:52 PM	Microsoft Windows security auditing.	4672	Special Logon	 Audit Success	8/18/2010 8:09:06 PM	Microsoft Windows security auditing.	4663	File System	 Audit Success	8/18/2010 8:09:06 PM	Microsoft Windows security auditing.	4663	File System	 Audit Success	8/18/2010 8:08:52 PM	Microsoft Windows security auditing.	4634	Logoff	 Audit Success	8/18/2010 8:08:52 PM	Microsoft Windows security auditing.	4624	Logon	 Audit Success	8/18/2010 8:08:52 PM	Microsoft Windows security auditing.	4672	Special Logon	 Audit Success	8/18/2010 8:07:52 PM	Microsoft Windows security auditing.	4634	Logoff	 Audit Success	8/18/2010 8:07:52 PM	Microsoft Windows security auditing.	4624	Logon
Keywords		Date and Time	Source	Event ID	Task Category																																																																																																						
 Audit Success		8/18/2010 8:10:58 PM	Microsoft Windows security auditing.	5140	File Share																																																																																																						
 Audit Success		8/18/2010 8:10:52 PM	Microsoft Windows security auditing.	4634	Logoff																																																																																																						
 Audit Success		8/18/2010 8:10:52 PM	Microsoft Windows security auditing.	4624	Logon																																																																																																						
 Audit Success		8/18/2010 8:10:52 PM	Microsoft Windows security auditing.	4672	Special Logon																																																																																																						
 Audit Success		8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4634	Logoff																																																																																																						
 Audit Success		8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4624	Logon																																																																																																						
 Audit Success		8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4672	Special Logon																																																																																																						
 Audit Success		8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4634	Logoff																																																																																																						
 Audit Success		8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4624	Logon																																																																																																						
 Audit Success		8/18/2010 8:10:38 PM	Microsoft Windows security auditing.	4672	Special Logon																																																																																																						
 Audit Success		8/18/2010 8:09:52 PM	Microsoft Windows security auditing.	4634	Logoff																																																																																																						
 Audit Success		8/18/2010 8:09:52 PM	Microsoft Windows security auditing.	4624	Logon																																																																																																						
 Audit Success		8/18/2010 8:09:52 PM	Microsoft Windows security auditing.	4672	Special Logon																																																																																																						
 Audit Success		8/18/2010 8:09:06 PM	Microsoft Windows security auditing.	4663	File System																																																																																																						
 Audit Success		8/18/2010 8:09:06 PM	Microsoft Windows security auditing.	4663	File System																																																																																																						
 Audit Success		8/18/2010 8:08:52 PM	Microsoft Windows security auditing.	4634	Logoff																																																																																																						
 Audit Success		8/18/2010 8:08:52 PM	Microsoft Windows security auditing.	4624	Logon																																																																																																						
 Audit Success		8/18/2010 8:08:52 PM	Microsoft Windows security auditing.	4672	Special Logon																																																																																																						
 Audit Success		8/18/2010 8:07:52 PM	Microsoft Windows security auditing.	4634	Logoff																																																																																																						
 Audit Success	8/18/2010 8:07:52 PM	Microsoft Windows security auditing.	4624	Logon																																																																																																							

File Server Report (Reporter: Daniel)

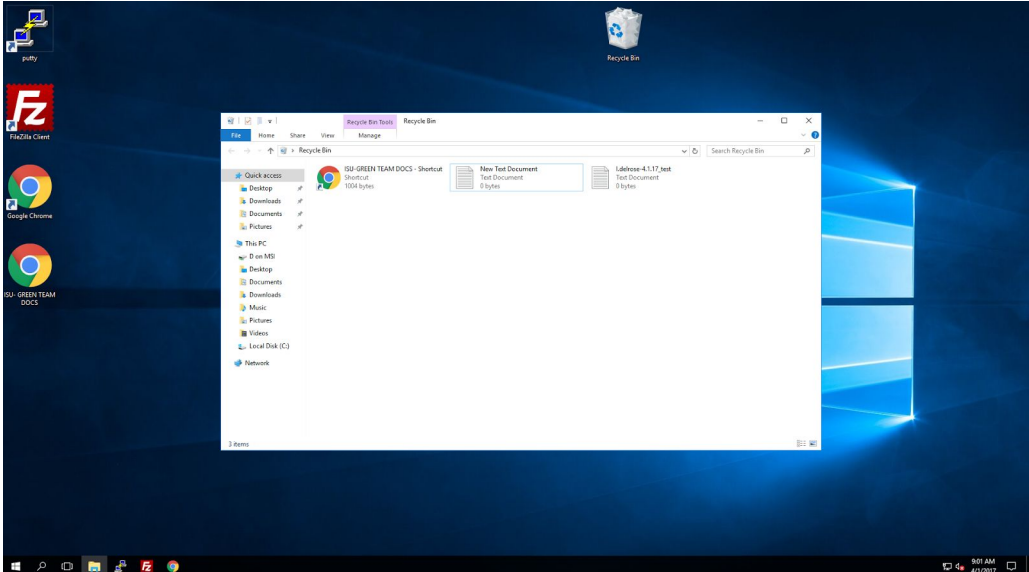
Time	Event	Description and evidence
------	-------	--------------------------

10:05 (GMT)	Syslog file changes	<p>Syslog is reporting OK things, such as the time being synced. We see no evidence of nefarious behavior on this server.</p> <pre>Apr 1 09:59:00 ubuntuftp kernel: [34877.553283] grsec: time set by /lib/systemd /systemd-timedated[systemd-timedat:30040] uid/euid:0/0 gid/egid:0/0, parent /sbin/init[init:1] uid/euid:0/0 gid/egid:0/0 Apr 1 09:59:00 ubuntuftp kernel: [34877.554837] grsec: time set by /lib/systemd /systemd-timedated[systemd-timedat:30040] uid/euid:0/0 gid/egid:0/0, parent /sbin/init[init:1] uid/euid:0/0 gid/egid:0/0 Apr 1 09:59:00 ubuntuftp kernel: [34877.556402] systemd-timedated[30040]: Changed local time to Sat Apr 1 09:59:00 2017 Apr 1 10:17:01 ubuntuftp CRON[30339]: (root) CMD (cd / && run-parts --report /etc/cron.hourly) 2579,1 99%</pre> <p>• /var/log/maillog: Mail server logs</p>
-------------	---------------------	--

DNS/NTP Server Report (Reporter: Daniel)

Time	Event	Description and evidence
11:23 (GMT)	Checked the system logs	<p>Only thing we could find in logs were DNS errors. We do not believe this has to do with an intrusion, but one of our engineers will look into this to ensure there are no vulnerabilities involved.</p> <pre>Apr 1 01:31:41 dns named[46225]: managed-keys-zone: journal rollforward failed: unexpected error Apr 1 01:31:41 dns named[46225]: all zones loaded Apr 1 01:31:41 dns named[46225]: running Apr 1 01:33:03 dns ntpd[87906]: dispatch_msgs in main: pipe closed Apr 1 02:00:02 dns syslogd: restart Apr 1 03:34:33 dns dnscrypt-proxy[68909]: Unable to retrieve server certificate s Apr 1 03:35:07 dns last message repeated 2 times Apr 1 03:37:23 dns last message repeated 5 times Apr 1 03:46:44 dns last message repeated 11 times Apr 1 03:57:20 dns last message repeated 8 times Apr 1 03:58:54 dns dnscrypt-proxy[68909]: Unable to retrieve server certificate s Apr 1 04:00:01 dns syslogd: restart Apr 1 04:00:30 dns dnscrypt-proxy[68909]: Unable to retrieve server certificate s Apr 1 04:02:09 dns dnscrypt-proxy[68909]: Unable to retrieve server certificate s Apr 1 04:03:51 dns dnscrypt-proxy[68909]: Unable to retrieve server certificate s Apr 1 04:13:06 dns last message repeated 5 times Apr 1 04:23:36 dns last message repeated 5 times</pre>

RDP Server Report (Reporter: Logan)

Time	Event	Description and evidence
11:01 GMT	Suspicious files found	<p>Two files containing no data but named in a manner to arouse suspicion, were located in the recycle bin.</p> 

WWW Server Report (Reporter: Megan)

Time	Event	Description and evidence
------	-------	--------------------------

08:55 AM (CTL)

The username is admin, but is not an administrative account.

2017-04-01 14:00:28	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32972	10.0.50.70	80	1:2019232	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers
2017-04-01 14:00:28	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32972	10.0.50.70	80	1:2022028	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers
2017-04-01 14:00:28	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32970	10.0.50.70	80	1:31978	OS-OTHER Bash CGI environment variable injection attempt
2017-04-01 14:00:28	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32970	10.0.50.70	80	1:2019232	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers
2017-04-01 14:00:28	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32970	10.0.50.70	80	1:2022028	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers
2017-04-01 14:00:24	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32946	10.0.50.70	80	1:31978	OS-OTHER Bash CGI environment variable injection attempt
2017-04-01 14:00:24	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32946	10.0.50.70	80	1:2019232	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers
2017-04-01 14:00:24	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32946	10.0.50.70	80	1:2022028	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers
2017-04-01 14:00:19	1	TCP	Web Application Attack	10.10.20.253	32870	10.0.50.70	80	1:2016184	ET WEB_SERVER ColdFusion administrator access
2017-04-01 14:00:17	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32844	10.0.50.70	80	1:31978	OS-OTHER Bash CGI environment variable injection attempt
2017-04-01 14:00:17	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32844	10.0.50.70	80	1:2019232	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers
2017-04-01 14:00:17	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32844	10.0.50.70	80	1:2022028	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers
2017-04-01 14:00:16	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32838	10.0.50.70	80	1:31978	OS-OTHER Bash CGI environment variable injection attempt
2017-04-01 14:00:16	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32838	10.0.50.70	80	1:2019232	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers
2017-04-01 14:00:16	1	TCP	Attempted Administrator Privilege Gain	10.10.20.253	32838	10.0.50.70	80	1:2022028	ET WEB_SERVER Possible CVE-2014-6271 Attempt in Headers

admin

VIEWEDITSESSION LIMITSHORTCUTSSUPPORT PLAN

Home » admin

Username *

admin

This username is automatically set and may not be changed.

E-mail address *

robert@renaud@lewisu.edu

A valid e-mail address. All e-mails from the system will be sent to this address. The e-mail address is not made public and will only be used if you wish to receive a new password or wish to receive certain news or notifications by e-mail.

Password

Password strength:

Confirm password

To change the current user password, enter the new password in both fields.

Status

☐ Blocked

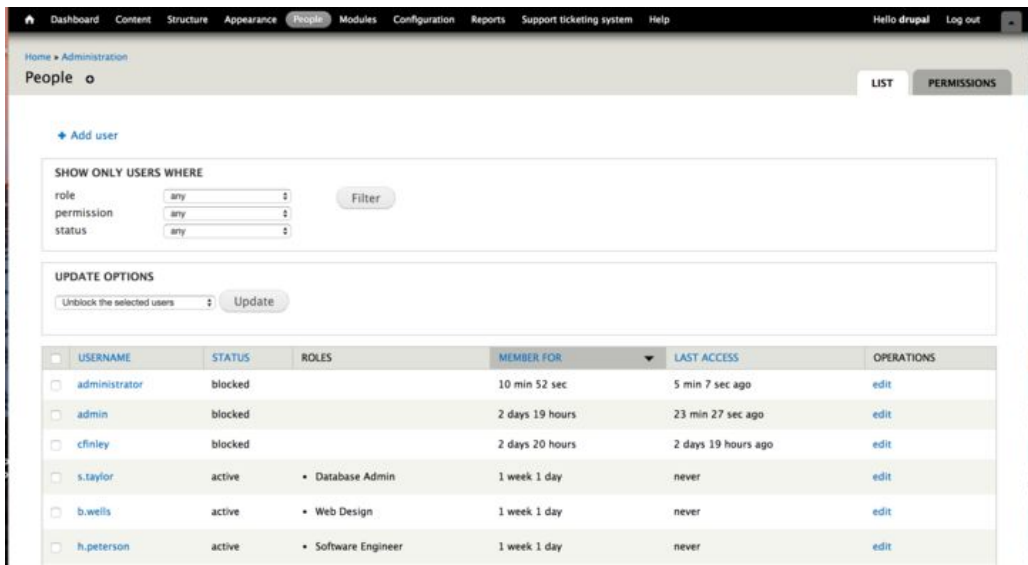
☒ Active

Them trying to hit our Web server using a nikto scan

2017-04-01 15:06:23	1	TCP	Web Application Attack	10.10.20.238	61041	10.0.50.70	80	1:2002677	ET SCAN Nikto Web App Scan in Progress
---------------------	---	-----	------------------------	--------------	-------	------------	----	-----------	--

09:30

Red added another malicious user "administrator" (user was a Drupal web user, without any permissions except posting comments). Mitigation: disabled new user registration and user account



The screenshot shows the Drupal 7 'People' administration page. At the top, there's a navigation bar with links like Dashboard, Content, Structure, Appearance, People (selected), Modules, Configuration, Reports, Support ticketing system, and Help. Below the navigation bar, there's a 'People' section with a 'LIST' tab selected. There are filters for 'SHOW ONLY USERS WHERE' (role, permission, status) and 'UPDATE OPTIONS' (Unblock the selected users). The main table lists users with columns: USERNAME, STATUS, ROLES, MEMBER FOR, LAST ACCESS, and OPERATIONS. The users listed are administrator (blocked), admin (blocked), cfinley (blocked), s.taylor (active, Database Admin), b.wells (active, Web Design), and h.peterson (active, Software Engineer).

<input type="checkbox"/>	USERNAME	STATUS	ROLES	MEMBER FOR	LAST ACCESS	OPERATIONS
<input type="checkbox"/>	administrator	blocked		10 min 52 sec	5 min 7 sec ago	edit
<input type="checkbox"/>	admin	blocked		2 days 19 hours	23 min 27 sec ago	edit
<input type="checkbox"/>	cfinley	blocked		2 days 20 hours	2 days 19 hours ago	edit
<input type="checkbox"/>	s.taylor	active	• Database Admin	1 week 1 day	never	edit
<input type="checkbox"/>	b.wells	active	• Web Design	1 week 1 day	never	edit
<input type="checkbox"/>	h.peterson	active	• Software Engineer	1 week 1 day	never	edit

Social Engineering/Intelligence Report

Several people have asked us questions regarding our servers and a few have been taking pictures of us. We do not know if these people are red team or not, so we are being extremely cautious with them. Our team leader asked a “reporter” to walk into the hallway with him if he wanted to interview him, rather than having strangers loiter near our screens which could show potentially sensitive data.