

Martin Georgiev

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EDUCATION

The University of Texas at Austin, Austin, TX
Ph.D. in Computer Science, 8/2011-8/2015
Dissertation: On the (In)security of Service APIs
Advisor: Vitaly Shmatikov

The University of Texas at Austin, Austin, TX
M.S. in Computer Science, 8/2011-5/2015

State University of New York, College at Brockport, Brockport, NY
B.S. in Computer Science & Mathematics, 8/2007-5/2011

HONORS & DISTINCTIONS

- Google Vulnerability Reward. 2016.
- Elected Member of the VMware Intern Prodigies (VIP) program. 2013-2014.
- 1st Place, AT&T Applied Security Research Paper, NYU Poly. 2012.
- PayPal Scholarship, PayPal. 2012.
- Microelectronics and Computer Development (MCD) Fellowship, The University of Texas at Austin. 2011-2014.
- Sigma Xi Research Award, State University of New York, College at Brockport. 2011.
- Computing Sciences Undergraduate Research Award, State University of New York, College at Brockport. 2010.
- Interdisciplinary Award in Mathematics, State University of New York, College at Brockport. 2010.
- Robert E. Hall Mathematics Scholarship, State University of New York, College at Brockport. 2010.
- Elected Member of Pi Mu Epsilon National Honorary Mathematics Society. 2010.
- Elected Member of Alpha Chi National College Honor Scholarship Society. 2010.
- Elected Member of Who's Who Among Students in American Universities & Colleges. 2010.
- Computer Science Departmental Award, State University of New York, College at Brockport. 2009.
- Mathematics Departmental Award, State University of New York, College at Brockport. 2009.
- 1st Place, Annual Math Competition, State University of New York, College at Brockport. 2008.
- Honors Program Scholarships, State University of New York, College at Brockport. 2008.
- Distinguished and Recognition Scholarship, State University of New York, College at Brockport. 2007-2011.

PROFESSIONAL EXPERIENCE

11/2015 - Present	Software Engineer, Security Yelp, San Francisco, CA
5/2015 - 8/2015	Software Engineering Intern, Gmail Security Google, Mountain View, CA
5/2014 - 8/2014	Software Engineering Intern, Authorization and Authentication Google, Mountain View, CA
5/2013 - 8/2013	Product Security Engineering Intern VMware, Palo Alto, CA
5/2011 - 8/2011	Software Engineering Co-Op Rochester Software Associates, Rochester, NY
12/2010 - 1/2011	Software Engineering Co-Op Rochester Software Associates, Rochester, NY
5/2010 - 8/2010	Software Engineering Co-Op Rochester Software Associates, Rochester, NY
2/2009 - 5/2011	Web Developer State University of New York, College at Brockport, Brockport, NY
5/2009 - 8/2009	Analyst Programmer Trainee University of Rochester, Rochester, NY
5/2008 - 8/2008	Explore Rochester IT Intern Internship Rotation at Kodak, Paychex, and Excellus BCBS, Rochester, NY

TECHNICAL SKILLS

- Languages: Java, Python, C, PHP, JavaScript, MySQL, HTML5, CSS.
- Development Environments: Eclipse, IntelliJ, PyCharm, Android Studio, Visual Studio.
- Operating Systems: Windows, Linux, macOS, Android.
- Others: Vulnerability Analysis, Exploit Design & Implementation, Reverse-Engineering, Botnets.

PROFESSIONAL SERVICE

- Reviewer. Computers & Security (COSE) Journal. 2016.
- External Reviewer. ACM Conference on Computer and Communications Security (CCS). 2016.
- Reviewer. IEEE Transactions on Dependable and Secure Computing (TDSC). 2016.
- External Reviewer. USENIX Security. 2015.
- External Reviewer. Privacy Enhancing Technologies Symposium (PETS). 2015.
- External Reviewer. ACM Conference on Security and Privacy in Wireless and Mobile Networks (ACM WiSec). 2015.
- Reviewer. Cyber Security Awareness Week (CSAW). 2015.
- Master's Admissions Committee Member. The University of Texas at Austin. 2015.
- External Reviewer. Annual Computer Security Applications Conference (ACSAC). 2014.
- Master's Admissions Committee Member. The University of Texas at Austin. 2014.
- Program Committee Member. Cyber Security Awareness Week (CSAW). 2013.

RESEARCH INTERESTS

- Security and privacy of mobile systems, cloud-based services and infrastructure.
- Network security, software and system security.
- Software engineering, reverse engineering, cryptography.

PUBLICATIONS

- *Gone in Six Characters: Short URLs Considered Harmful for Cloud Services*. Martin Georgiev and Vitaly Shmatikov. arXiv 2016.
- *Earp: Principled Storage, Sharing, and Protection for Mobile Apps*. Yuanzhong Xu, Tyler Hunt, Youngjin Kwon, Martin Georgiev, Vitaly Shmatikov and Emmett Witchel. NSDI 2016.
- *Rethinking Security of Web-Based System Applications*. Martin Georgiev, Suman Jana, Vitaly Shmatikov. WWW 2015.
- *Breaking and Fixing Origin-Based Access Control in Hybrid Web/Mobile Application Frameworks*. Martin Georgiev, Suman Jana, Vitaly Shmatikov. NDSS 2014.
- *The Most Dangerous Code in the World: Validating SSL Certificates in Non-Browser Software*. Martin Georgiev, Subodh Iyengar, Suman Jana, Rishita Anubhai, Dan Boneh and Vitaly Shmatikov. CCS 2012.

IMPACT OF RESEARCH

- Google Scholar. https://scholar.google.com/citations?user=Tr_z5pQAAAAJ.
- International Media Coverage:
 - Gone in Six Characters: Short URLs Considered Harmful for Cloud Services:
 - * United States of America, English.
 - ★ Forbes. <http://www.forbes.com/sites/ygrauer/2016/04/20/five-reasons-you-should-stop-shortening-urls/#3c405d132733>.
 - ★ HackerNews. <https://news.ycombinator.com/item?id=11503881>.
 - ★ Wired. <https://www.wired.com/2016/04/researchers-cracked-microsoft-googles-shortened-urls-spy-people>.
 - ★ Ars Technica. <http://arstechnica.com/security/2016/04/guess-what-url-shorteners-short-circuit-cloud-security>.
 - ★ VICE Motherboard. http://motherboard.vice.com/en_uk/read/how-short-urls-could-reveal-your-home-address-and-get-you-hacked.
 - ★ Engadget. <http://www.engadget.com/2016/04/15/short-url-weak-privacy>.
 - ★ Schneier. https://www.schneier.com/blog/archives/2016/04/security_risks_11.html.
 - ★ Freedom to Tinker. <https://freedom-to-tinker.com/blog/vitaly/gone-in-six-characters-short-urls-considered-harmful-for-cloud-services>.
 - ★ ThreatPost. <https://threatpost.com/short-urls-a-big-problem-for-cloud-collaboration-stored-data/117447>.
 - ★ eWeek. <http://www.eweek.com/security/shortened-urls-make-file-sharing-less-secure-cornell-researchers-find.html>.
 - ★ MediaPost. <http://www.mediapost.com/publications/article/273850/shortened-urls-make-it-easier-to-track-people-onli.html>.
 - ★ Reddit. https://www.reddit.com/r/netsec/comments/4esfis/gone_in_six_characters_short_urls_considered.
 - ★ MetaFilter. <http://www.metafilter.com/158590/Gone-in-Six-Characters>.
 - ★ Slashdot. <https://tech.slashdot.org/story/16/04/15/150219/researchers-find-vulnerabilities-in-microsofts-and-googles-short-url-services>.

- ★ Gizmodo. <http://gizmodo.com/link-shorteners-can-spy-on-you-1771081653>.
- ★ The Digital Reader. <http://the-digital-reader.com/2016/04/15/report-that-shortened-url-you-just-shared-is-also-a-shortcut-to-your-sensitive-info>.
- ★ PCMag. <http://www.pcmag.com/news/343781/url-shorteners-convenient-but-a-potential-security-risk>.
- ★ Techdirt.
<https://www.techdirt.com/articles/20160414/09250634185/report-exposes-flaws-link-shorteners-that-reveal-sensitive-info-about-users-track-their-offline-movements.shtml>.
- ★ ZDNet. <http://www.zdnet.com/article/microsofts-onedrive-short-urls-pointed-attackers-right-at-your-private-files>.
- ★ Security Intelligence (by IBM). <https://securityintelligence.com/news/cloud-complications-short-urls-come-with-big-problems>.
- ★ Tech Times. <http://www.techtimes.com/articles/150592/20160417/security-researchers-give-you-a-good-reason-not-to-use-shortened-urls.htm>.
- * United Kingdom, English.
 - ★ The Register. http://www.theregister.co.uk/2016/04/15/google_url_shorteners_reveal_your_disease_clinics_shops.
 - ★ Wired.co.uk.
<http://www.wired.co.uk/news/archive/2016-04/15/short-url-hack-access-files>.
 - ★ Network World. <http://www.networkworld.com/article/3057679/security/personal-data-is-exposed-by-older-shortened-urls.html>.
 - ★ Daily Mail. <http://www.dailymail.co.uk/sciencetech/article-3542375/Are-URL-shorteners-revealing-personal-information-Researchers-say-away-data-location.html>.
 - ★ Naked Security (by Sophos). <https://nakedsecurity.sophos.com/2016/04/18/google-and-microsofts-shortened-urls-make-it-easy-to-spy-on-people>.
 - ★ SC Magazine. <http://www.scmagazineuk.com/short-urls-putting-privacy-and-security-at-risk/article/490539>.
- * Canada, English.
 - ★ Lawyerist. <https://lawyerist.com/109552/url-shorteners-security-risk>.
 - ★ Boing Boing.
<https://boingboing.net/2016/04/13/url-shorteners-are-a-short-pat.html>.
 - ★ LWN.net. <http://lwn.net/Articles/683880>.
- * Austria, English.
 - ★ Blog post by Tomislav Nad.
<https://www.tnad.at/2016/04/study-shows-short-urls-are-harmful>.
- * Australia, English.
 - ★ BIT. <http://www.bit.com.au/Guide/418530,take-care-before-you-share.aspx>.
- * Romania, English.
 - ★ Softpedia. <http://news.softpedia.com/news/google-microsoft-address-problems-in-their-url-shorteners-503007.shtml>.
- * Germany, German.
 - ★ Heise. <http://www.heise.de/security/meldung/Studie-zeigt-Sicherheits-und-Datenschutzrisiken-von-Kurz-URLs-3176168.html>.
 - ★ Golem. <http://www.golem.de/news/brute-force-wenn-kurz-urls-zur-sicherheitsluecke-werden-1604-120355.html>.
 - ★ t3n. <http://t3n.de/news/sicherheits-datenrisiken-kurz-urls-698330>.
 - ★ 20 Minuten. <http://www.20min.ch/digital/news/story/Hacker-wissen--in-welches-Bordell-Sie-gehen-27609899>.

- * France, French.
 - ★ Silicon. <http://www.silicon.fr/hyperlien-court-mini-taille-mais-maxi-risque-de-securite-145076.html>.
 - ★ 01net. <http://www.01net.com/actualites/utiliser-des-liens-raccourcis-pour-google-drive-ou-onedrive-peut-etre-dangereux-967795.html>.
 - ★ ZDNet. <http://www.zdnet.fr/actualites/securite-les-url-les-plus-courtes-ne-sont-pas-les-meilleures-39835710.htm>.
 - ★ Fredzone. <http://www.fredzone.org/selon-deux-chercheurs-bit-ly-representerait-une-menace-pour-notre-securite-554>.
 - ★ Be Geek. <http://www.begeek.fr/attention-aux-problemes-de-securite-url-raccourcies-200105>.
- * Spain, Spanish.
 - ★ Genbeta. <http://www.genbeta.com/seguridad/un-estudio-demuestra-que-los-acortadores-de-urls-pueden-exponer-tus-archivos-en-la-nube>.
 - ★ ComputerHoy. <http://computerhoy.com/noticias/internet/acortadores-enlaces-no-son-seguros-vulneran-privacidad-43511>.
 - ★ Eldiario. http://www.eldiario.es/cultura/tecnologia/acortar-URL-puede-exponer-archivos_0_506749971.html.
 - ★ TICbeat. <http://www.ticbeat.com/seguridad/los-acortadores-de-url-amenazan-tus-archivos-en-la-nube>.
 - ★ Portal Hoy. <http://portalhoy.com/goo-gl-y-bit-ly-brechas-de-seguridad-con-sus-url>.
 - ★ MundoLopd. <http://www.mundolopd.com/privacidad/proteccion-de-datos-peligro-enlaces>.
 - ★ Open Source Intelligence. <http://opensources.info/los-acortadores-de-enlaces-suponen-un-grave-riesgo-para-la-privacidad>.
- * Italy, Italian.
 - ★ WebNews. <http://www.webnews.it/2016/04/15/url-shortening-pericolo-privacy>.
 - ★ ictBusiness. <http://www.ictbusiness.it/cont/news/gli-url-brevi-sono-pratici-ma-potenzialmente-pericolosi/36878/1.html#.VzrCS0ErK1I>.
 - ★ DIMT. <http://www.dimt.it/2016/04/18/secondo-due-ricercatori-della-cornell-tech-di-new-york-gli-url-brevi-sono-un-potenziale-pericolo-per-la-privacy>.
- * The Netherlands, Dutch.
 - ★ Security.nl. <https://www.security.nl/posting/467854/Verkorte+url's+privacyrisico+voor+clouddiensten+als+OneDrive>.
 - ★ NOS. <http://nos.nl/artikel/2099385-onderzoekers-spioneren-met-afgekorte-linkjes.html>.
- * The Netherlands, English.
 - ★ The Next Web. <http://thenextweb.com/insider/2016/04/15/using-url-shorteners-expose-privacy-invasions-malware-attacks/#gref>.
- * Norway, Norwegian.
 - ★ digi.no. <http://www.digi.no/artikler/url-krympere-kan-avsløre-fortrolig-informasjon/348079>.
- * Finland, Finnish.
 - ★ Taloussanomat. <http://www.digitoday.fi/tietoturva/2016/04/15/kaytitko-tata-yleista-tapaa-tiedostojen-jakoon-saatat-olla-vaarassa/20164089/66>.
- * Poland, Polish.
 - ★ onet. <http://technowinki.onet.pl/internet-i-sieci/skracane-linki-moga-naruszac-privatnosc/nycg1f>.
 - ★ Techno Logicznie. <http://technologicznie.pl/skracanie-linkow-jest-niebezpieczne>.

- * Hungary, Hungarian.
 - ★ 24.hu. <http://24.hu/tech/2016/04/18/veszelyesek-a-roviditett-webcimek>.
- * Brazil, Portuguese.
 - ★ Globo. <http://g1.globo.com/tecnologia/blog/seguranca-digital/post/links-curtos-expoem-privacidade-do-internauta-diz-pesquisa.html>.
 - ★ Tech ao Minuto. <http://www.noticiasao minuto.com.br/tech/213126/encurtador-de-links-reduz-seguranca-do-internauta-diz-estudo>.
 - ★ Olhar Digital. http://olhardigital.uol.com.br/fique_seguro/noticia/encurtadores-de-url-podem-vazar-contas-de-usuarios-do-google-e-da-microsoft/57257.
 - ★ Gadgetsweb. <http://gadgetsweb.com.br/blog/encurtador-de-links-reduz-seguranca-do-internauta-diz-estudo/#axzz4A5lRjt5k>.
 - ★ Portal Guandu. <http://portalguandu.com.br/noticia/38153/links-curtos-expoem-a-privacidade-do-internauta-diz-pesquisa>.
 - ★ Dirigida. http://www.dirigida.com.br/news/pt.br/links_curtos_expoem_a_privacidade_do_internauta_diz_pesquisa_globo_com/redirect_24492959.html.
- * Argentina, Spanish.
 - ★ minutouno. <http://www.minutouno.com/notas/1481704-los-acortadores-enlaces-suponen-una-gran-falla-seguridad>.
 - ★ Energy Press. <http://www.energypress.com.ar/82272-los-acortadores-de-enlaces-suponen-una-amenaza-para-la-privacidad>.
 - ★ RedUSERS. <http://www.redusers.com/acortadores-urls-descubren-nuevas-brechas-seguridad>.
- * Indonesia, Indonesian.
 - ★ CNN Indonesia. <http://www.cnnindonesia.com/teknologi/20160418075754-185-124588/waspada-pemendek-url-bisa-undang-malware>.
 - ★ Lupitan 6. <http://tekno.liputan6.com/read/2484652/hati-hati-pemakaian-penyingkat-url-rentan-malware>.
 - ★ Metro TV News. <http://teknologi.metrotvnews.com/news-teknologi/aNrLWBWk-peringkat-url-punya-risiko-keamanan>.
- * Russia, Russian.
 - ★ Gazeta. http://www.gazeta.ru/tech/news/2016/04/15/n_8512937.shtml.
 - ★ ThreatPost. <https://threatpost.ru/short-urls-a-big-problem-for-cloud-collaboration-stored-data>.
 - ★ N+1. <https://nplus1.ru/news/2016/04/15/long-url-short>.
 - ★ Xakep.ru. <https://xakep.ru/2016/04/18/shorteners>.
 - ★ Geektimes. <https://geektimes.ru/post/274418>.
 - ★ Mail.ru. <https://news.mail.ru/society/25479327>.
 - ★ Security Lab. <http://www.securitylab.ru/news/481257.php>.
 - ★ EngNews. http://www.engnews.ru/news/ukorochennye_ssyilki_vedut_k_lichnoy_informacii.html.
 - ★ VistaNews. <http://vistanews.ru/computers/security/54414>.
- * Ukraine, Russian.
 - ★ ITCua. <http://itc.ua/news/issledovanie-sokrashhennyie-url-adresa-mogut-predstavlyat-seryoznyu-ugrozu-bezopasnosti>.
 - ★ UrkNames. <https://blog.ukrnames.com/administrirovanie/sokrashhenie-ssylok-mozhet-privesti-k-utechke-lichnyih-dannyih-polzovateley-oblachnyih-servisov>.
 - ★ GoGetNews. <http://www.gogetnews.info/news/techno/122679-sokraschennyie-url-adresa-nesut-ugrozu-bezopasnosti.html>.

- * Azerbaijan, Russian.
 - ★ KavkazNews. <http://kavkaznews.az/2016/04/nikolas-maduro>.
- * China, Chinese.
 - ★ PC3. <http://www.pc3mag.com/shorten-link-security-risk>.
 - ★ WROX. <http://wrox.cn/article/200089693>.
 - ★ China Cyber Safety Broadcast. <http://www.chinacybersafety.com/201604212350.html>.
- * Taiwan, Chinese.
 - ★ TechNews. <http://technews.tw/2016/04/19/url-shortner-privacy-problem>.
- * Japan, Japanese.
 - ★ Post by Fukushima computer system Co., Ltd. <https://www.facebook.com/FukushimaComputerSystem/posts/1067276986664593>.
- The Most Dangerous Code in the World: Validating SSL Certificates in Non-Browser Software:
 - * United States of America, English.
 - ★ HackerNews. <http://news.ycombinator.com/item?id=4695350>.
 - ★ Ars Technica. <http://arstechnica.com/security/2012/10/faulty-ssl-fooled-by-phony-certificates>.
 - ★ Threatpost. <https://threatpost.com/ssl-vulnerabilities-found-critical-non-browser-software-packages-102512/77152/>.
 - ★ Slashdot. <http://it.slashdot.org/story/12/10/25/2020223/ssl-holes-found-in-critical-non-browser-software>.
 - ★ Reddit. http://www.reddit.com/r/programming/comments/121idm/the_most_dangerous_code_in_the_world.
 - ★ Common Weakness Enumeration. <https://cwe.mitre.org/data/definitions/296.html>.
 - * Canada, English.
 - ★ LWN.net. <https://lwn.net/Articles/522111>.
 - ★ Terse Systems. <https://tersesystems.com/2014/01/13/fixing-the-most-dangerous-code-in-the-world>.
 - * United Kingdom, English.
 - ★ The H Security. <http://www.h-online.com/security/news/item/SSL-certificates-and-the-most-dangerous-code-in-the-world-1737168.html>.
 - * Switzerland, English.
 - ★ Securi. <https://blog.sucuri.net/2016/03/beware-unverified-tls-certificates-php-python.html>.
 - * Romania, English.
 - ★ Softpedia. <http://news.softpedia.com/news/Faulty-SSL-Certificate-Validation-Exposes-Apps-to-MitM-Attacks-Researchers-Find-302362.shtml>.
 - * Australia, English.
 - ★ SC Magazine. <http://www.scmagazine.com.au/News/320809,researchers-detail-laundry-list-of-dodgy-crypto-deployments.aspx>.
 - ★ IT News. <http://www.itnews.com.au/news/researchers-detail-ssl-implementation-holes-320981>.
 - * Germany, German.
 - ★ Heise. <http://www.heise.de/newsticker/meldung/SSL-Zertifikate-und-der-gefahrlichste-Code-der-Welt-1736699.html>.
 - ★ IT republik. <http://it-republik.de/php/news/eBay-PayPal-und-viele-andere-nutzen-unsichere-SSL-Implementationen-065298.html>.

- * The Netherlands, Dutch.
 - ★ Webwereld. <http://webwereld.nl/nieuws/112236/betalingsverkeer-paypal-onveilig-door-brak-ssl-gebruik.html>.
 - ★ Security.nl. http://www.security.nl/artikel/43681/1/%27Code_voor_SSL-controle_gevaarlijkste_ter_wereld%27.html.
- * Russia, Russian.
 - ★ Xakep.ru. <http://www.xakep.ru/post/59532>.
 - ★ Computer Security Software Russia. <http://www.comss.info/page.php?id=3042>.
 - ★ Anti-Malware. <http://www.anti-malware.ru/news/2012-10-25/10355>.
- * Ukraine, Russian.
 - ★ Information Security Center. <http://www.bezpeka.com/ru/news/2012/10/25/ssl-client-bugs.html>.
- * Armenia, Russian.
 - ★ Vayrus. <http://vayrus.do.am/news/2012-10-27-480>.
- * Italy, Italian.
 - ★ Punto Informatico. <http://punto-informatico.it/3635477/PI/News/ssl-piu-grosso-pericolo-del-mondo-connesso.aspx>.
- * Czech Republic, Czech.
 - ★ Root.cz. <http://www.root.cz/clanky/ssl-je-zbytecne-pokud-se-nekontroluje-certifikat>.
- * China, Chinese.
 - ★ Solidot. <http://software.solidot.org/article.pl?sid=12/10/26/0322221>.

NOTE: The country of origin of each of the above articles was extracted either from the publishing website, when such information was available, or from the whois¹ database, when the website itself didn't have a reference to its country of origin. The language information for all articles was obtained using Google Translate².

- Public Security Notices:
 - Amazon Web Services. <http://aws.amazon.com/security/security-bulletins/reported-ssl-certificate-validation-errors-in-api-tools-and-sdks>.
 - Apache LibCloud. <http://libcloud.apache.org/security.html#CVE-2012-3446>.
 - Apache ActiveMQ. <https://issues.apache.org/jira/browse/AMQ-5443>.
 - OpenWall. <http://openwall.com/lists/oss-security/2014/02/07/9>.
 - IBM SPSS Modeler Premium. <http://www-01.ibm.com/support/docview.wss?uid=swg21619427>
 - Emagined Security. <http://emagined.info/securityfocus-advisory/65150/cordova-and-phonegap-multiple-security-bypass-vulnerabilities>
- Common Weakness Enumeration:
 - CWE-296. Improper Following of a Certificate's Chain of Trust. <https://cwe.mitre.org/data/definitions/296.html>.
 - CWE-297. Improper Validation of Certificate with Host Mismatch. <https://cwe.mitre.org/data/definitions/297.html>.
- Common Vulnerabilities and Exposures:
 - CVE-2014-1887. <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2014-1887>.
 - CVE-2014-1886. <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2014-1886>.

¹<http://www.whois.com>.

²<https://translate.google.com>.

- CVE-2012-5789. <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2012-5789>.
- CVE-2012-5788. <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2012-5788>.
- CVE-2012-5787. <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2012-5787>.
- CVE-2012-5786. <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2012-5786>.
- CVE-2012-5785. <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2012-5785>.
- CVE-2012-5784. <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2012-5784>.
- CVE-2012-5783. <https://web.nvd.nist.gov/view/vuln/detail?vulnId=CVE-2012-5783>.
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