

## Standard for High Risk Digital Data Protection

### Purpose

All university data, regardless of risk classification, must be protected with the minimum qualifications set forth by policy 7010, Policy for Securing Technology Resources and Services. Digital high risk data pertains to data where protection of the data is required by law or regulation and Virginia Tech is required to self-report to the government and/or provide notice to the individual if the data is inappropriately accessed. The unauthorized release of this data could result in a significant adverse impact on the university's mission, safety, finances, or reputation. Therefore, additional security precautions must be taken when storing, transmitting, and/or processing such data.

The following table highlights the university's high risk data elements/types, associated university policies and standards, associated laws and regulations, and the protections required by the university for that data element/type. The first six elements (Social Security number, credit and debit card number, bank account number, driver's license number, and passport number) are defined by the university as personally identifiable information (PII).

Data element	VT policies and standards	Laws and regulations	VT protections
<i>Social Security number</i>	Policy 1060, Policy on Social Security Numbers <a href="http://www.policies.vt.edu/1060.pdf">www.policies.vt.edu/1060.pdf</a>	Code of Virginia: Collection, exposure, or display of social security number. <a href="http://law.lis.virginia.gov/vacode/2.2-3808/">http://law.lis.virginia.gov/vacode/2.2-3808/</a> Code of Virginia, Breach of personal information notification. <a href="http://law.lis.virginia.gov/vacode/18.2-186.6/">http://law.lis.virginia.gov/vacode/18.2-186.6/</a> Code of Virginia, identity theft; penalty; restitution; victim assistance. <a href="http://law.lis.virginia.gov/vacode/18.2-186.3/">http://law.lis.virginia.gov/vacode/18.2-186.3/</a>	<ul style="list-style-type: none"> <li>▪ Usage and collection must be approved by data trustee, Vice President for Finance and Chief Financial Officer</li> <li>▪ Encrypt the data file/database element in storage and in transmission using cryptographic methods approved by NIST</li> <li>▪ No third-party storage or transmission without prior ITSO review and university contract</li> <li>▪ No use as an identifier</li> </ul>
Debit and credit card numbers	Accepting and Handling Payment Card Transactions <a href="http://www.policies.vt.edu/3610.pdf">http://www.policies.vt.edu/3610.pdf</a>  Safeguarding Nonpublic Customer Information, Policy 7025	Payment Card Industry Data Security Standard <a href="https://www.pcisecuritystandards.org/">https://www.pcisecuritystandards.org/</a>  Standards for Safeguarding Customer Information, 16 CFR Part 314, implementing sections 501 and 505(b)(2) of the Gramm-Leach-	<ul style="list-style-type: none"> <li>▪ Encrypt the data file/database element in storage and in transmission using cryptographic methods approved by NIST</li> <li>▪ Obtain prior written approval of department head after written request of coworker for storing debit/credit card numbers for assisting with travel arrangements.</li> <li>▪ No third-party storage or transmission without prior ITSO review, Bursar approval, and university contract</li> <li>▪ Acceptance of credit card payments and methods must be approved by the University Bursar</li> </ul>

	<a href="http://www.policies.vt.edu/7025.pdf">www.policies.vt.edu/7025.pdf</a>	Bliley Act <a href="http://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&amp;node=16:1.0.1.3.38">www.ecfr.gov/cgi-bin/text-idx?rgn=div5&amp;node=16:1.0.1.3.38</a>  Code of Virginia, Breach of personal information notification. <a href="http://law.lis.virginia.gov/vacode/18.2-186.6/">http://law.lis.virginia.gov/vacode/18.2-186.6/</a>	<ul style="list-style-type: none"> <li>▪ Must not be requested, received, or transmitted through an unsecure medium.</li> <li>▪ Processing payments cards received by email, text, or instant messaging (encrypted or unencrypted) is prohibited</li> </ul>
Bank account numbers	Safeguarding Nonpublic Customer Information, Policy 7025 <a href="http://www.policies.vt.edu/7025.pdf">www.policies.vt.edu/7025.pdf</a>	NACHA Operating Rules and Guidelines  Code of Virginia, Breach of personal information notification. <a href="http://law.lis.virginia.gov/vacode/18.2-186.6/">http://law.lis.virginia.gov/vacode/18.2-186.6/</a>  Code of Virginia, identity theft; penalty; restitution; victim assistance. <a href="http://law.lis.virginia.gov/vacode/18.2-186.3/">http://law.lis.virginia.gov/vacode/18.2-186.3/</a>	<ul style="list-style-type: none"> <li>▪ Encrypt the data file/database element in storage and in transmission using cryptographic methods approved by NIST</li> <li>▪ No third-party storage or transmission without prior ITSO review and university contract</li> </ul>
<i>Driver's license numbers, military id numbers, and passport numbers</i>		Code of Virginia, Breach of personal information notification. <a href="http://law.lis.virginia.gov/vacode/18.2-186.6/">http://law.lis.virginia.gov/vacode/18.2-186.6/</a>  Code of Virginia, identity theft; penalty; restitution; victim assistance. <a href="http://law.lis.virginia.gov/vacode/18.2-186.3/">http://law.lis.virginia.gov/vacode/18.2-186.3/</a>	<ul style="list-style-type: none"> <li>▪ Encrypt the data file/database element in storage and in transmission using cryptographic methods approved by NIST</li> <li>▪ Obtain prior written approval of department head after written request of coworker for storing passport numbers for assisting with travel arrangements</li> <li>▪ No third-party storage or transmission without prior ITSO review and university contract</li> </ul>
Medical or mental history; Medical treatment or diagnoses information; health insurance policy numbers		Code of Virginia, Breach of personal information notification. <a href="https://law.lis.virginia.gov/vacode/title32.1/chafter5/section32.1-127.1:05/">https://law.lis.virginia.gov/vacode/title32.1/chafter5/section32.1-127.1:05/</a>	<ul style="list-style-type: none"> <li>▪ Encrypt the data file/database element in storage and in transmission using cryptographic methods approved by NIST</li> <li>▪ No third-party storage or transmission without prior ITSO review and university contract</li> </ul>

<p>Student data (nondirectory or items marked confidential)</p>	<p>Student Privacy/FERPA  <a href="http://registrar.vt.edu/contact/FERPA.html">http://registrar.vt.edu/contact/FERPA.html</a></p> <p>Maintaining Student's Privacy  <a href="http://registrar.vt.edu/faculty-toolbox.html">http://registrar.vt.edu/faculty-toolbox.html</a></p>	<p>The Family Educational Rights and Privacy Act (FERPA)  <a href="http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title34/34cfr99_main_02.tpl">http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title34/34cfr99_main_02.tpl</a></p>	<ul style="list-style-type: none"> <li>▪ Departments must not include personally identifiable FERPA data in totality in an email: e.g. no full name in combination with full student ID number.</li> <li>▪ Departments must not list student name and ID number in the subject line</li> <li>▪ Departments may communicate using either the student ID with the full initials of the student [999999999 (ANW)] or use the full name with the last four of the ID [Alice N. Wonderland (1234)]</li> <li>▪ Departments must not attach spreadsheets or scanned documents with full identifiers or nondirectory information via email. Departments may communicate spreadsheets or scanned documents via a secure link or shared electronic files requiring user authentication</li> <li>▪ Do not store FERPA data on a flash drive.</li> <li>▪ If forwarding items with personally identifiable FERPA data, use a cover sheet directing the recipient to contact you if it is misdirected.</li> </ul>
<p>Export controlled research data</p>	<p>Virginia Tech Technology Control Plan  <a href="https://www.oescrc.researchcompliance.vt.edu/system/files/private/virginia_tech_technology_control_plan_2015_02_09.pdf">https://www.oescrc.researchcompliance.vt.edu/system/files/private/virginia_tech_technology_control_plan_2015_02_09.pdf</a></p> <p>VT Export and Sanctions Compliance Policy  <a href="http://www.policies.vt.edu/13045.pdf">http://www.policies.vt.edu/13045.pdf</a></p>	<p>Executive Order 13556 Controlled Unclassified Information  <a href="https://obamawhitehouse.archives.gov/the-press-office/2010/11/04/executive-order-13556-controlled-unclassified-information">https://obamawhitehouse.archives.gov/the-press-office/2010/11/04/executive-order-13556-controlled-unclassified-information</a></p> <p>Controlled Unclassified Information 32 CFR §2002  <a href="https://www.federalregister.gov/documents/2016/09/14/2016-21665/controlled-unclassified-information">https://www.federalregister.gov/documents/2016/09/14/2016-21665/controlled-unclassified-information</a></p>	<p>Virginia Tech Technology Control Plan guidelines  <a href="https://www.oescrc.researchcompliance.vt.edu/system/files/private/technology_control_plan_tcp_guidelines_11-10-2014.pdf">https://www.oescrc.researchcompliance.vt.edu/system/files/private/technology_control_plan_tcp_guidelines_11-10-2014.pdf</a></p> <p>Department of Defense Instruction 8582.01  <a href="http://www.dtic.mil/whs/directives/corres/pdf/858201p.pdf">http://www.dtic.mil/whs/directives/corres/pdf/858201p.pdf</a></p> <p>(As applicable) Federal Acquisition Regulation 52.204-21 Basic Safeguarding of Covered Contractor Information Systems  <a href="http://farsite.hill.af.mil/reghtml/regs/far2afmc/fars/fardfars/Far/52_000.htm#P891_130989">http://farsite.hill.af.mil/reghtml/regs/far2afmc/fars/fardfars/Far/52_000.htm#P891_130989</a></p> <p>(As applicable) NIST 800-171  <a href="http://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-171r1.pdf">http://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-171r1.pdf</a></p> <p>(As applicable) NIST 800-53  <a href="http://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-53r4.pdf">http://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-53r4.pdf</a></p>

	<p>OSP Procedure 29-05: Management of Restricted Research Agreements</p> <p><a href="https://osp.vt.edu/content/dam/osp_vt_edu/policies/vt_osp_export_control_policy_osp-29-05.pdf">https://osp.vt.edu/content/dam/osp_vt_edu/policies/vt_osp_export_control_policy_osp-29-05.pdf</a></p> <p>VT Policy 12115: Accepting and Reporting Gifts-in-Kind</p> <p><a href="http://www.policies.vt.edu/12115.pdf">http://www.policies.vt.edu/12115.pdf</a></p>	<p>Export Administration Regulations (EAR) 15 CFR §§730-774</p> <p><a href="http://www.ecfr.gov/cgi-bin/text-idx?SID=a010f4662b853e201c87b56dab273b42&amp;mc=true&amp;tpl=/ecfrbrowse/Title15/15CVIIs-ubchapC.tpl">http://www.ecfr.gov/cgi-bin/text-idx?SID=a010f4662b853e201c87b56dab273b42&amp;mc=true&amp;tpl=/ecfrbrowse/Title15/15CVIIs-ubchapC.tpl</a></p> <p>International Traffic in Arms Regulations (ITAR) 22 CFR §§120-130</p> <p><a href="http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title22/22cfr120_main_02.tpl">http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title22/22cfr120_main_02.tpl</a></p> <p>Importation of Arms, Ammunition and Implements of War 27 CFR §447</p> <p><a href="http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr;rgn=div5;view=text;node=27%3A30.1.2.2;idno=27;sid=f4e4c0fd4d94e9106565233ee81c773a;cc=ecfr">http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr;rgn=div5;view=text;node=27%3A30.1.2.2;idno=27;sid=f4e4c0fd4d94e9106565233ee81c773a;cc=ecfr</a></p> <p>Export and Import of Nuclear Equipment and Material Regulations (EINEMR) 10 CFR §110</p> <p><a href="http://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&amp;node=10:2.0.1.1.20">http://www.ecfr.gov/cgi-bin/text-idx?rgn=div5&amp;node=10:2.0.1.1.20</a></p>	
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### Unauthorized Exposure of PII

Upon confirmation by the ITSO that personally identifiable information may have been exposed, the department in which the exposure occurred shall be responsible for notifying the individuals whose personally identifiable information was exposed, as well as offering credit monitoring as arranged through the university's Procurement Department. If the unauthorized data exposure consisted of

information that was not related to university business, the department shall have no obligation to offer credit monitoring and the matter may also be referred to human resources for review in compliance with the acceptable use policy.

## Definitions

**Driver's License Number** also includes any identification card number issued by a state in lieu of a driver's license number.

**Social Security number (SSN)** include those issued to persons by the United States Social Security Administration, and also those issued to individuals by the United States government in lieu of an SSN. SSNs also include nation-based identification numbers issued to individuals by other countries. SSNs also include railroad numbers. SSNs do not include tax IDs issued to corporations.

## References

NIST Cryptographic Toolkit <http://csrc.nist.gov/groups/ST/toolkit/index.html>

Dealing with Data Exposures

[http://security.vt.edu/content/dam/security\\_vt\\_edu/downloads/forms/data\\_exposure/data\\_exposure.pdf](http://security.vt.edu/content/dam/security_vt_edu/downloads/forms/data_exposure/data_exposure.pdf)

Protecting Sensitive Data <http://security.vt.edu/resources/sensitiveinfo.html>

Railroad numbers <https://secure.ssa.gov/poms.nsf/lnx/0110225045>

## Approval and Revisions

This standard supersedes and replaces Security Standards for Social Security Numbers; Standard for Protecting Sensitive University Information Used in Digital Form; and Standard for Storing and Transmitting Personally Identifying Information.

Version 1, published July 2017

Added military id and health data

Version 2, published November 16, 2020

This standard is owned by the IT Security Office. Questions should be directed to [security@vt.edu](mailto:security@vt.edu)