



Office of Information
Technology Services

Establishing New York Data Governance

Optimizing New York State Data

October 22, 2017

A Connected and Codependent World

Internet Penetration By Region



North America

The US broadband market is seeing significant investment activity in fibre deployments, HFC upgrades with DOCSIS3.1 technology, and to a lesser extent G.fast.

Asia

The region is already rapidly advancing in the adoption of mobile broadband services.

South America

In recent years there has been a greater appreciation among policy makers that higher broadband penetration translates to economic productivity.

Europe

Europe's broadband sector continues to develop steadily.

Africa

The internet market in Africa has been stymied by the poor quality and relative scarcity of the fixed-line infrastructure. As a consequence more than 90%

Australia

Most Australian businesses now make use of broadband to promote themselves in the market place.

Competing Goals



Protect Sensitive
Information



Save Money



Modernize
Government

Duncan, A. D., Oestreich, T. W., & Logan, V. A. (2017). How CDOs Engage With Their Stakeholders to Deliver Real Business Value, 1–12.

Duncan, A. D., & Laney, D. (2015). How to Adopt Open Data for Business Data and Analytics — And Why You Should (pp. 1–15).

Six Hard Questions to Answer

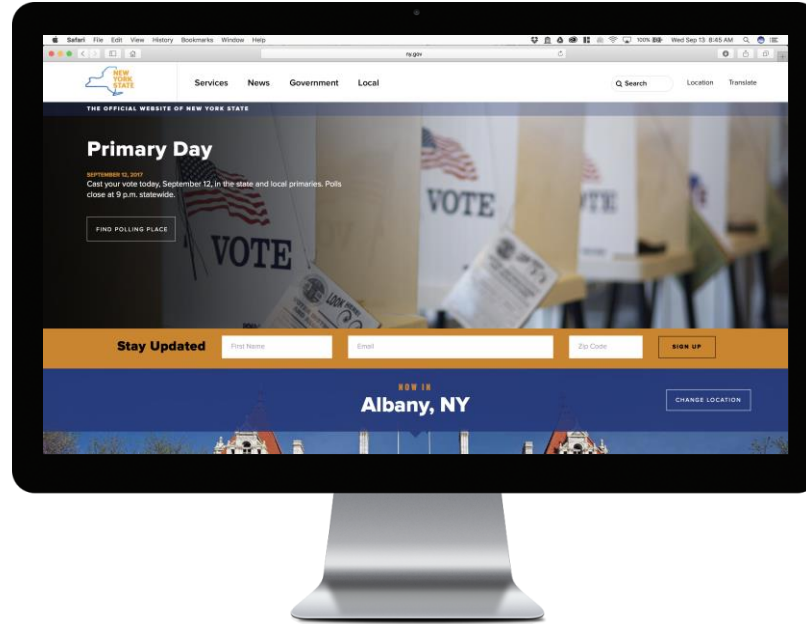
What data does New York State have?



Where did it get the data?



Where is the data now?



Who is responsible for the data?



What controls are on the data?



What is New York doing with the data?

New York State needs a data governance forum to establish standards regarding the management of its data

Building Blocks of Data Management



Data Lifecycle Process



Typical Data Authorities

Strategy & Policy



Develop practical implementation of policy and strategic directives, management of data-related operations and services, and assuring proper security and privacy of data while aligning to state strategic priorities.

Governance



Establish stewardship for enterprise and business-unit data, along with policies and standards that are monitored and measured on an ongoing basis.

Investments



Authorize initiatives and investments to improve institutional data.

Data Inventory



Maintain inventory of all enterprise data determining its format, security, ownership, and quality.

Security

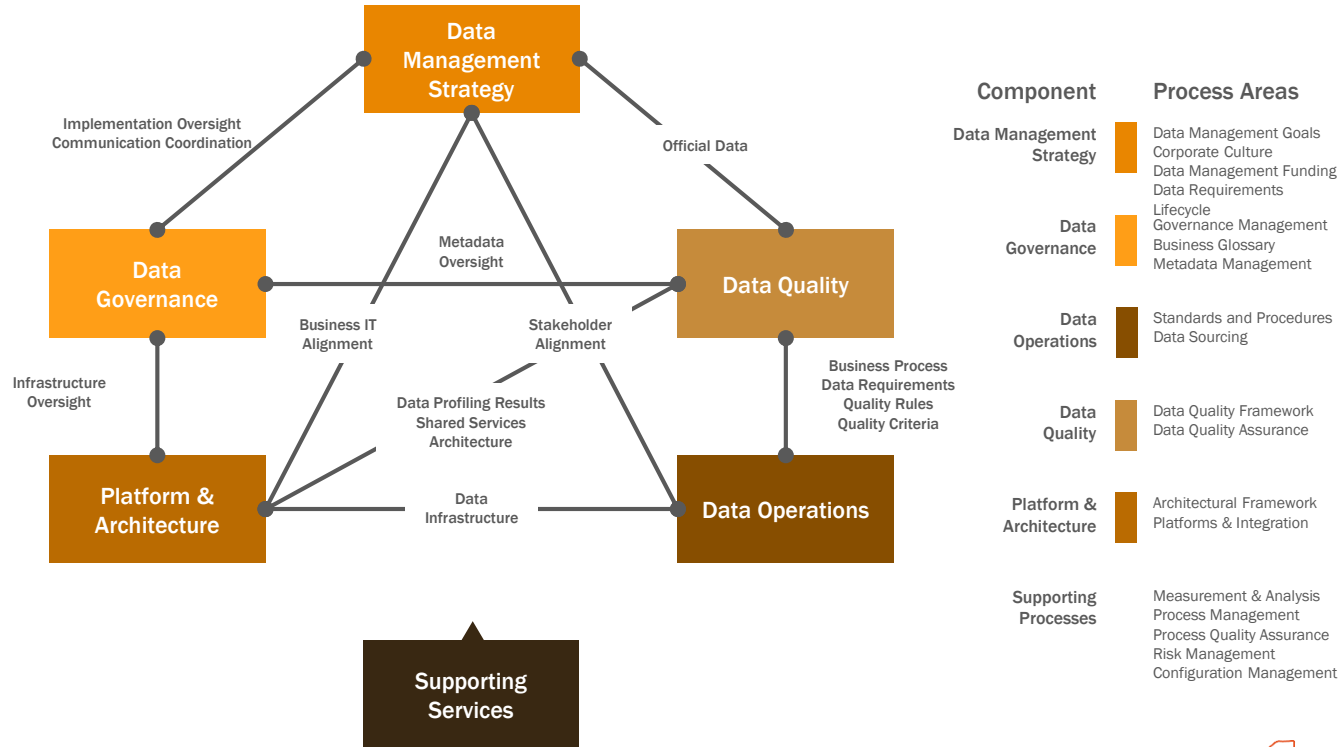


Determine and enforce specific security and privacy requirements for each piece of data especially as it relates to privacy laws, industry regulations, and corporate compliance mandates.

Data Governance Framework



Data Management Maturity Model



Laney, D. (2016). *Gartner's Enterprise Information Management Maturity Model* (pp. 1–17).

Thoo, E., Beyer, M. A., Friedman, T., Adrian, M., & Bitterer, A. (2013). *Predicts 2013: Advancing Data Management Maturity* (pp. 1–14).

Laney, D., & Moran, M. P. (2017). *Information Management Maturity — Critical Challenges, Real Remedies* (pp. 1–12).

A Case Study in Data Governance

Damage, Loss, Liability, and Lasting Impact



4.2 Million Employees

Personnel files of former and current government employees.



21.5 Million People

Security clearance background investigation information.



\$350 Million

Government expenses to notify and protect those impacted.



32 CFR 2002



November 14, 2016

Establishes policy for designating, handling, and decontrolling qualified CUI information.



Minimum Protections

Describes, defines, and provides guidance on the minimum protections.



Legal Foundation

Emphasizes unique protections in law, regulation, and/or Government-wide policies.

63340 Federal Register / Vol. 81, No. 178 / Wednesday, September 14, 2016 / Rules and Regulations























63336 Federal Register / Vol. 81, No. 178 / Wednesday, September 14, 2016 / Rules and Regulations

63340 Federal Register / Vol. 81, No. 178 / Wednesday, September 14, 2016 / Rules and Regulations

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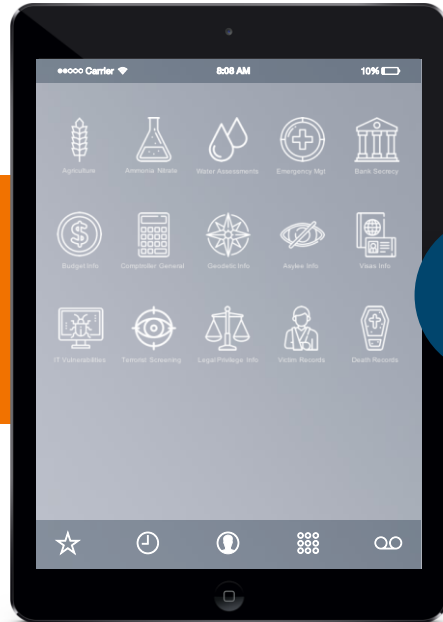























Two Types of Information

BASIC

Is the subset of CUI for which the authorizing law, regulation, or Government-wide policy does not set out specific handling or dissemination controls.

Agriculture, Ammonia Nitrate, Water Assessments, Emergency Management, Bank Secrecy, Budget, Comptroller General, Geodetic Information, Asylee Information, Visas, IT Vulnerabilities, Terrorist Screening, Legal Privilege, Victim Records, Death Records



VS



SPECIFIED

Is the subset of CUI in which the authorizing law, regulation, or Government-wide policy contains specific handling controls that it requires or permits agencies to use that differ from those for CUI Basic.

Security Information, Student Records, Patents, Source Selection, Nuclear Safeguards, Active Investigations, NATO Information, Federal Grand Jury, Witness Protection, DNA, Criminal History Records, Critical Infrastructure, Export Control, Controlled Technical Information, Financial Records

CUI Registry

The image displays three overlapping screenshots of the National Archives website, specifically the Controlled Unclassified Information (CUI) Registry page. The top screenshot shows the main navigation bar with links for 'RESEARCH OUR RECORDS', 'VETERANS' SERVICE RECORDS', 'EDUCATOR RESOURCES', 'VISIT US', and 'AMERICA'S FOUNDING DOCUMENTS'. Below this is the 'Controlled Unclassified Information (CUI)' header. The middle screenshot shows the 'Registry' section, which includes a search bar, a 'Search the Registry:' field, and a 'Go' button. It also features a 'Categories, Markings and Controls' section with a list of items: Category-Subcategory List, Category-Subcategory Markings, Limited Dissemination Controls, Decontrol, and Registry Change Log. To the right, there is a 'Policy and Guidance' section with links to Executive Order 13556, 32 CFR Part 2002, CUI Marking Handbook, and CUI Notices. The bottom screenshot shows the 'Registry: Privacy-Health Information' page, which includes a table with columns for 'Subcategory' and 'Description'. The table lists 'Privacy-Health Information' with a description: 'Refers to personal information, or, in some cases, "personally identifiable information," as defined in OMB M-17-12, or "means of identification" as defined in 48 USC 5202(b)(5).'



AUTHORITATIVE SOURCE

The CUI Registry is the authoritative source for guidance regarding CUI policies and practices.



CONTROLLED INFORMATION

The CUI Program is founded on the prerequisite that only information requiring protection based in a law, Federal regulation, or government-wide policy can qualify as CUI.



TRAINING AVAILABLE

The Controlled Unclassified Information (CUI) office develops training tools for CUI, designed for a widespread audience at multiple levels within the government and beyond.

NIST Special Publication 800-171



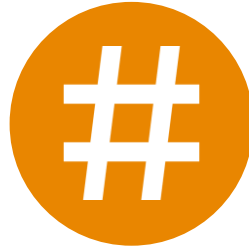
Systems

Agencies must use NIST SP 800-171 when establishing security requirements to protect CUI's confidentiality on non-Federal information systems.



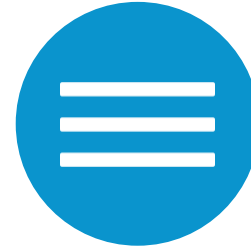
Organizations

Intended for use by federal agencies in appropriate contractual vehicles or other agreements established between those agencies and nonfederal organizations.



Classification

Establishes requirements for protecting CUI at the Moderate Confidentiality Impact Value.



Guidelines

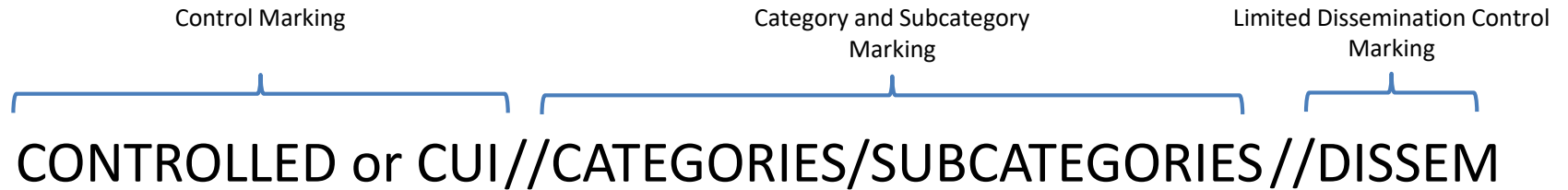
Agencies may increase CUI Basic's confidentiality impact level above moderate only by means of agreements with agencies or non-executive branch entities.



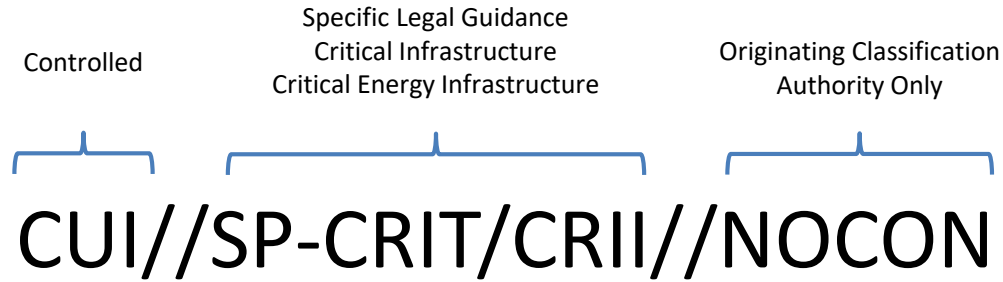
Flexibility

NARA certifies that this rule will not have a significant adverse economic impact on a substantial number of small entities.

Marking CUI: Banner Marking



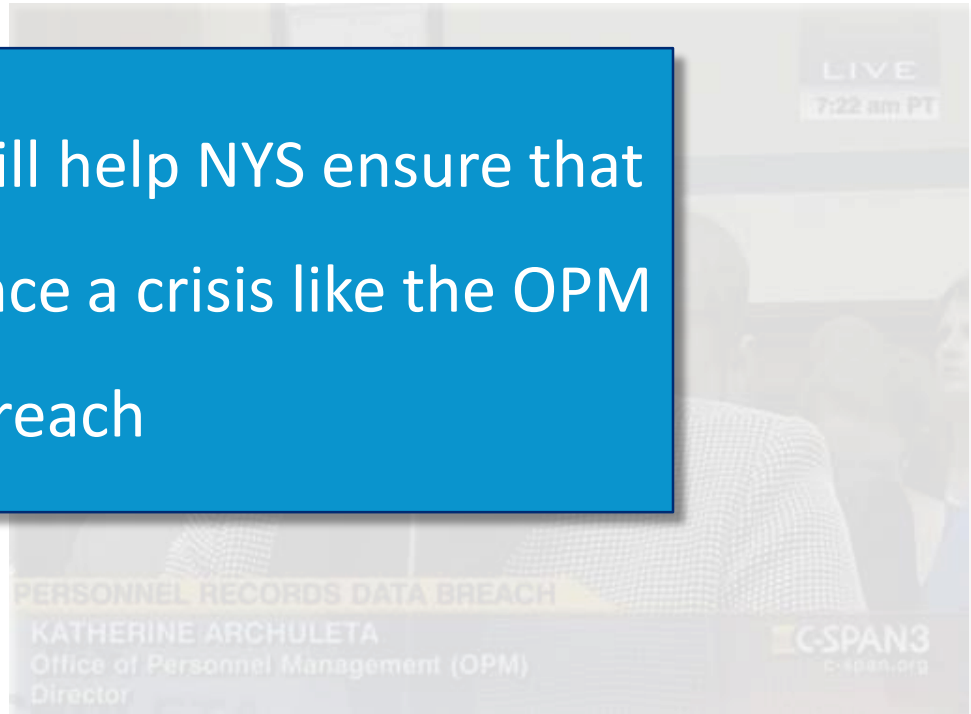
Controlled Data Example



Damage, Loss, Liability, and Lasting Impact

- The OPM incident
- Personnel current
- Security investiga
- OPM fail
- Government expense (to notify and protect those impacted) = \$350 Million.

Data governance will help NYS ensure that it does not experience a crisis like the OPM breach



Questions

