



**Securing Private
and Public Data:
Nine Steps to
Compliance when
Decommissioning
Datacenters and
Performing
Secure Transport**

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Securing Private and Public Data: Nine Steps to Compliance when Decommissioning Datacenters and Performing Secure Transport

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Securing Private and Public Data: Nine Steps to Compliance when Decommissioning Datacenters and Performing Secure Transport

Securing Private and Public Data: Nine Steps to Compliance for the End-Of-Life Media Ecosystem

The Challenges in Data Security

How successful are you at securing data in an adverse environment of enterprise facilities, datacenter decommissioning and secure transport operations? Are you trying to make outmoded processes compliant? Do you have confidence that you have control of the data you possess during these operations?

Maybe you did survive another year where the internal compliance auditors did not ask the tough questions. Will you endure through the harder compliance audits being launched this year by federal and state agencies? Will your process survive the Cybersecurity Whistleblowers?

How long can you hide the facts that your current processes are not tied to Cybersecurity regulations concentrating on Risk Management, Planning, Training, and Compliance?

Wherever you are in the process, this whitepaper can help you. It explores the nine steps in securing public and private data when you are performing data destruction, decommissioning a datacenter or secure transport operations.

Threats to personal and public data

Just as organizations enjoy the automation benefits that the As A Service distributors offer, cyber

criminals do also. Today's cyber attackers increasingly infiltrate datacenter environments and take advantage of the fact that their impersonator will not be recognized by datacenter staff.

IBM estimates the data loss in physical breaches as a result of unauthorized access at \$400 billion annually.

The risks of unauthorized access to data are reported as:

1. Risk One: The Insider Threat
2. Risk Two: The Outsider Threat
3. Risk Three: The Seemingly Innocent Personal Item
4. Risk Four: Poor or Nonexistent Identity Verification

These startling results highlight the frequency with which cybercriminals are targeting datacenters using sophisticated techniques. The challenge for security teams lies in identifying and securing potential vulnerabilities and stopping an attack in its tracks.

With the General Data Protection Regulation (GDPR) in effect, data management is paramount when destroying data, decommissioning, or moving customer data.

"GDPR has expanded the responsibility of protecting critical data to any entity that is a 'controller' of the data," says Charles Robbins, Compliance Officer at TechR2. "As such, traditional Chain of Custody concepts will no longer protect an organization from regulatory reach."

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Maintaining compliance standards

When your customers and your cybersecurity auditor interact with you, do they tell you that your policy, procedures, execution, verification, and monitoring is exceptional? In a world of customers fearing a partner breach of their data, what people say about you will determine whether you receive another contract extension or more.

Data security is a top decision-making attribute with more and more enterprises and with all levels of government.

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Nine Steps to Compliance

Step 1: Governance and global mandates

The EU General Data Protection Regulation (GDPR) that went into effect on May 24, 2018, has changed the landscape of data protection for tracking.

Article 33 and Recital 85 require controllers to notify the supervisory authority of a personal data loss no later than 72 hours after having become aware of it.

Article 25 and Recital 87 state that it should be ascertained whether all appropriate technological protection and organizational measures have been implemented to establish immediately whether a personal data breach has taken place.

Cybersecurity Framework (CSF) Compliance is required for companies doing federal work.

The Federal Acquisition Regulation (FAR) governs all federal government acquisitions and contracting procedures; DFARS is the special supplement for DoD-related contracts. The FAR Final Rule 52.204-21 on "Basic Safeguarding of Contractor Information Systems," which became effective June 15, 2016, contains 15 controls that are considered the minimal baseline for federal contractors. These controls resonate with basic security objectives contained in NIST SP 800-171 Revision 2.

Starting this year, the compliance model will begin to move from self-attestation (i.e., the current NIST SP 800-171 compliance model) to third-party validation in accordance with the new, three-level Cybersecurity Maturity Model Certification (CMMC 2.0).

The majority of US States adopted the NIST Cybersecurity Framework (CSF), specifically NIST SP 800-53 R5 for their agencies, contractors and subcontractors. Media Protection (MP) is one section of the NIST CSF that has been scrutinized by the US Inspector General for failing the control.

NIST SP 800-53 MP-6(1) MEDIA SANITIZATION | REVIEW / APPROVE / TRACK / DOCUMENT / VERIFY The organization reviews, approves, tracks, documents, and verifies media sanitization and disposal actions.

Industry rules require businesses to be subject to mandatory compliance standards imposed by the government (such as HIPAA, SOX, PCI DSS). These standards often stipulate how businesses should secure Personally Identifiable Information (PII), and other sensitive data. A Data Loss Prevention (DLP) policy is a basic first step to compliance, and most DLP tools are built to address the requirements of common standards.

HIPAA requires strict control of medical data which eliminates the possibility of shipping loose media and decommissioned data bearing devices offsite.

FFEIC Handbook Rules for Banks and Financial Institutions require extraordinary tracking and containing of data and data bearing devices.

Payment Card Industry (PCI) - Credit card processors are required to notify the card associations on a quarterly basis to identify any merchant who is not PCI compliant. Merchants can face penalties and fines by the credit card associations for not being compliant and may even have their ability to accept credit card payments terminated.

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IBM Own Cloud Compliance Policy

Compliance - Last Updated: 2019-07-31

IBM® Cloudant® for IBM Cloud provides a trustworthy and secure cloud database system. The service is built on best-in-industry standards, including ISO 27001:2013.

HIPAA - IBM Cloudant, when deployed on dedicated hardware on IBM Cloud, meets the required IBM controls that are commensurate with the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Security and Privacy Rule requirements.

International Organization for Standardization (ISO) - IBM Cloudant and IBM Cloudant Dedicated Cluster are audited by a third-party security firm and meet ISO 27001, ISO 27017, and ISO 27018 requirements.

SOC 2 Type 2 Certification - IBM provides a Service Organization Controls (SOC) 2 Type 2 report for Cloudant.

General Data Protection Regulation (GDPR) - The GDPR seeks to create a harmonized data protection law framework across the EU and aims to give citizens back the control of their personal data, while imposing strict rules on those hosting and 'processing' this data, anywhere in the world.

Step 2: Plan for multi-step processes

You will find that Cybersecurity Frameworks (CSF) follow logical data security steps to Identify, Protect, Detect, Respond and Recover. Control of your data in a datacenter is part of this multi-step sequence.

1. Complete a Risk Assessment (RA) of the Data Destruction, Sanitization for Refreshes, Decommissioning or Secure Transport operation
2. Create data destruction / decommissioning / secure transport plan that meets or exceeds the parameters of the RA
3. Project managers create timelines, review data security processes that meet RA and legal requirements
4. Employees and vendors comply with the cybersecurity checklist
5. Data Destruction, Decommissioning or Secure Transport work is completed in accordance with the Project Management guidelines within the cybersecurity framework
6. Data Destruction Event is conducted with reconciliation, audit, destroy data, Certificate of Destruction (CoD) and ISO 14001 recycling
7. Close Project and transmit CoD, Audit and Green Reports, and Certificate of Recycling

Step 3: Global view

You need data control that is a cradle to grave solution for tracking, containing and destroying Data at Rest and is a proven technique used by large financial, healthcare, retail and hospitality industries. The solution should be a far right and far top choice in data security and helps you pass your internal regulatory audits, since the solution is fully compliant and certified for ISO 27001, 9001, 45001, 14001 and 31000.

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Step 4a: Follow Track – Contain – Destroy – Verify for Data Destruction and Datacenter Decommissioning

By now, you should be aware of the Federal and State NIST CSF requirements that require you to control the data in the datacenter. You must:

- Track your data-bearing devices using a technological method such as RFID and establish a real time inventory and audit trail via tailored customer portal.
- Contain data-bearing devices securely in a locked Appliance, only accessible by certified staff.
- Destroy data onsite, within the four walls of your facility, and receive a Certificate of Destruction prior to the departure of the dual technicians.
- Verify data destruction via dual controlled teams and electronic reporting to reconcile internal data bases/asset inventories.

Step 4b: Follow Track – Contain – Verify for Secure Transport

By now, you should be aware of the Federal and State NIST CSF requirements that require you to control the data in transit. You must:

- Track your data-bearing devices using a technological method such as RFID and establish a real time inventory and audit trail via tailored customer portal.
- Contain data-bearing devices securely in locked containers, only accessible by certified staff.
- Verify data bearing devices throughout the transit via dual controlled teams and electronic reporting to reconcile internal data bases/asset inventories.

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Step 5: Automate your processes

When a company experiences a Data Security incident, which solution do you think a CISO wants? A completely digital solution that actually meets the NIST regulation or a something someone locally just contrived. Look at your documents and compare them to the NIST standard and you will be shocked that your old solution is not compliant.

Besides compliant reports, your data security team will appreciate the ease of conducting internal audits on your systems without the necessity of flying to each location. Your internal auditors can view current data 24-7 through a Customer Portal.

Step 6: Accept ISO and Worldwide Compliance

It is 2022 and non-compliant data security companies are selling their products and services to you. How do you separate those third-party providers who will cause you to fail your audits from those who will not? Innovation in solving your problems is number one. Proof of cybersecurity compliance is the next.

The ISO compliance system is your way to know that the data security, quality management, environmental services, health and safety, and risk management programs are internally and externally audited to worldwide standards.

Is the company compliant to NIST 800-171? These are questions to ask before there is a problem.

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Step 7: Environmental Acceptance

Responsible technology recycling is essential for end-of-life data bearing equipment. Improper disposal can lead to fines, litigations, and most importantly a data breach. But such disposal is more than mere self-protection – it is a moral imperative. Your recycler should lead the charge to honor the environment. Your research, your expectations, and your reactions to changes in data and environmental law and practice may affect you – operationally, financially, and ethically.

Your recycler should keep a vigilant eye on the global business and environmental culture so that you are better able to understand and fulfill your role while maintaining optimum value. As stewards of the environment and a student of sound business practices, your choice should develop strategic alliances with organizations that share your environmental goals.

Step 8: Make the Cybersecurity Transition

In the coming years, companies and their third-party providers must all comply with Cybersecurity Framework (CSF) programs. Where most companies in the world are not compliant, those who take data security seriously for their clients have held their CSFs for many years.

Step 9: Grow your Security

As part of any Cybersecurity Framework (CSF) program, annual Risk Assessments, Planning and Training will create a multi-layered data security system that will also inspire growth in your other data security programs. You know that you cannot stay at the status quo. Data security is either growing or failing. Partnering with world-class data security professionals will enhance your program.

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Here are 15 good examples of TechR2 Decommissioning and Secure Transport Projects

Airline Services Customer

SOW Statement:

Secure transport for 8 server racks and 40 pieces equipment from Site 1, Eagan, MN, USA to Site 2, Eagan, MN, USA.

Project Scope:

Includes inventory of the equipment, wire labeling, unracking of the equipment, packing and secure move of the equipment, unloading of equipment, re-racking of equipment and connecting wires.

Airline Services Customer

SOW Statement:

Decommissioning for 300+ server racks and 4000+ pieces equipment at Eagan, MN, USA.

Project Scope:

Included verification of the equipment, unracking, removal of cabling, removal of the data bearing devices, packing, shipping, and recycling of the equipment. All cage locations were made broom swept with walkthrough before completion.

Financial Services Customer

SOW Statement:

Secure transport and decommissioning for 3 server racks and 32 pieces equipment from Columbus, Ohio, USA to Dublin, Ohio, USA.

Project Scope:

Includes inventory of the equipment, wire labeling,

unracking of the equipment, packing and secure move of the equipment, unloading of equipment, re-racking of equipment and connecting wires.

Financial Services Customer

SOW Statement:

Secure transport for 3 server racks and 32 pieces of equipment from Columbus, Ohio, USA to Cleveland, Ohio, USA.

Project Scope:

Includes inventory of the equipment, wire labeling, unracking of the equipment, packing and secure move of the equipment and data, unloading, re-racking of equipment and connecting wires.

Financial Services Customer

SOW Statement:

Secure transport and decommissioning for 5 server racks and 80 pieces of equipment from Columbus, Ohio, USA to Dublin, Ohio, USA.

Project Scope:

Includes inventory of the equipment, wire labeling, unracking of the equipment, packing and secure move of the equipment, unloading, racking, and connecting wires.

Online University

SOW Statement:

Customer moving two Columbus, Ohio, USA datacenters, decommission current datacenter and secure transport.

Project Scope:

Required inventory with verification, complete

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backup of system, wire labeling, unranking of the equipment, packing and secure move of the equipment including racks, unloading, racking, and connecting wires. 12 server cabinets, 200 servers, 10,000 IT assets, 15,000 data bearing devices, 2,000 hard drives. Managing of the system and performing updates. Leading the effort to sell all equipment including facility infrastructure, IT assets and scrap material.

Verizon Culpeper, VA, USA

SOW Statement:

Decommission of an estimated 1500 pieces of datacenter equipment including 12 server racks and 13,609 drives from 4 cages located in three separate buildings

Project Scope:

Decommission of an estimated 1500 pieces of datacenter equipment including 12 server racks and 13,609 drives from 4 cages located in three separate buildings. Scope: Includes verification of the equipment, unranking, removal of cabling, removal of the data bearing devices, packing, shipping, and recycling of the equipment. All cage locations were made broom swept with walkthrough before completion. Secure transport of equipment from Culpeper, VA datacenter to Reynoldsburg, Ohio, USA. Included packing and loading of the equipment, secure transport of the equipment to the Reynoldsburg, facility processing of data bearing devices and recycling of all materials.

Verizon Culpeper, Virginia, USA

SOW Statement:

Decommission of an estimated 1500 pieces of datacenter equipment including 12 server racks and

13,609 drives from 4 cages located in three separate buildings.

Project Scope:

Includes verification of the equipment, unranking, removal of cabling, removal of the data bearing devices, packing, shipping, and recycling of the equipment. All cage locations were made broom swept with walkthrough before completion. Secure transport of equipment from Culpeper, VA datacenter to Reynoldsburg, Ohio, USA. Included packing and loading of the equipment, secure transport of the equipment to the Reynoldsburg, facility processing of data bearing devices and recycling of all materials.

AT&T San Diego, California, USA

SOW Statement:

Decommission of 100 server racks, 1200 pieces of equipment and 12,912 drives from datacenter.

Project Scope:

Includes verification of the equipment, removal of cabling, unranking, removal of the data bearing devices, packing, shipping, and recycling of the equipment. All cage locations were made broom swept with walkthrough before completion. Scope also Included a secure transport of 500 pieces of equipment from San Diego, California, USA to Columbus, Ohio, USA for processing and recycle.

Verizon: Miami, Florida, USA

SOW Statement:

Decommission of 300 server racks, 1000 pieces of equipment and 26,899 hard drives the datacenter on multiple floors.

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Project Scope:

Includes verification of the equipment, unracking, removal of cabling, removal of the data bearing devices, packing, shipping, and recycling of the equipment. All cage locations were made broom swept with walkthrough before completion.

AT&T Piscataway, New Jersey, USA

SOW Statement:

Decommission of 40 server racks, 350 pieces of equipment and 12,190 hard drives from the datacenter.

Project Scope:

Included verification of the equipment, unracking, removal of cabling, removal of the data bearing devices, packing, shipping, and recycling of the equipment. All cage locations were made broom swept with walkthrough before completion.

Financial Services Customer

SOW Statement:

Securing and destruction of data at financial institution in Georgetown, Texas, USA for data tapes, hard drives, and solid-state drives.

Project Scope:

Included inventory/verification of the devices, destruction of the devices, shipping of the destroyed devices and recycling of the materials. Devices processed 105,588 data tapes, 98,461 hard drives, and 1,165 solid state drives.

Financial Services Customer

SOW Statement:

Securing and destruction of data at financial

institution in Roanoke, TX for data tapes, hard drives, and solid-state drives.

Project Scope:

Included inventory/verification of the devices, destruction of the devices, shipping of the destroyed devices and recycling of the materials. Devices processed: 160,585 data tapes, 22,584 hard drives, and 1,017 solid state drives.

Automotive Industry, United Kingdom

SOW Statement:

Decommission of 40 server racks, 350 pieces of equipment and 12,190 hard drives from the datacenter.

Project Scope:

Team performed confirmation of the equipment at the datacenter location. Removal of the equipment and racks from the datacenter. Removal of the hard drives from the equipment. Inventory of the Data bearing devices and their destruction at the client's location. Loading and shipment of the equipment for recycling.

Ehningen, Germany

SOW Statement:

Decommission of 1300 pieces from the datacenter location.

Project Scope:

Removal of the 8505 data bearing devices from the equipment. Inventory and data destruction of all devices. Packing, shipping, and recycling of all processed devices.

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Makuhari, Japan

SOW Statement:

Decommission of 80 server racks including tape cabinets, 500 pieces of equipment and 5,900 data bearing devices.

Project Scope:

Team verified the equipment in the datacenter. Removal of the equipment based upon a schedule was removed from the rack. Certain items were prioritized during the removal. Devices were moved and placed in a staging area. Data bearing devices were removed and transported to a secure room for inventory and data destruction. This included data tapes as well as hard drives. Dismantling and removal of power wires for all equipment and PDU. Packing and shipping of the equipment to the recycler.

E&Y Amsterdam

SOW Statement:

Decommission 30 server racks 175 pieces of equipment and 1000 hard drives.

Project Scope:

Team performed verification and power down of equipment. Equipment was then disconnected and removed from the rack. Wires and power cabling was removed. Data bearing devices were removed from the appliances inventoried and data destruction performed. All equipment and devices were packed, shipped and recycled.

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TechR2 as your Data Security Partner

The Challenge

In the Business-to-Business world, 'As A Service' representatives use to have large list of partners to perform any IT operation. But wait a second. Laws like GDPR and US federal regulations prevent data from being controlled by non-compliant, non-cybersecurity certified, untrained truck drivers and movers to interact with hard drives, solid state devices and digital systems. This decade, many data controllers found that their procedures were flawed when brought to court.

The Solution

Enter TechR2, a top compliant, cybersecurity certified datacenter destruction, datacenter decommissioning vendor trusted by IBM, Kyndryl and other many Fortune 500 companies. Externally audited annually to six (6) worldwide ISO certificates, and NIST Compliant to the DFARS standard. Externally assessed to HIPAA and financial compliance. Organizations know that these multiple frameworks have helped to build TechR2 staff into a trusted entity when you are the most vulnerable and data is on the loose.

Next Steps

Contact our experienced TechR2 staff to learn more.

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We offer **one** standard of service: **Excellence.**

- Innovation 100%
- Experience 100%
- Compliance 100%
- Customer Focus 100%

