

```
...the end add back the deselected mirror
ob.select=1
obj.select=1
next.scene.objects.active = modifier_ob
selected" + str(modifier_ob)) # modifier ob is the active
```

SOC Reports for Cloud Security and Privacy

01

INTRODUCTION

Cloud adoption has increased by leaps and bounds adding to the already increasing cyber risks. Cost of doing business in the digital age is rising. Cloud service abuse rank among the greatest cyber security threats. To illustrate the potential magnitude of this threat, in a recent incident described how a virtual machine could use side-channel timing information to extract private cryptographic keys in use by other VMs on the same server. A malicious hacker wouldn't necessarily need to go to such lengths to pull off that sort of feat, though. If a multitenant cloud service database isn't designed properly, a single flaw in one client's application could allow an attacker to get not just that client's data, but every other clients' data as well.

The challenge in addressing this threat of data loss and data leakage is that "the measures you put in place to mitigate one can exacerbate the other". You could encrypt your data to reduce the impact of a breach, but if you lose your encryption key, you'll lose your data. However, if you opt to keep offline backups of your data to reduce data loss, you increase your exposure to data breaches.

CYBER SECURITY TRENDS

COST OF DOING BUSINESS IN THE DIGITAL AGE

\$6T

SIZE OF
CYBER CRIME
MARKET

\$158M

AVERAGE COST
PER LOST OR
STOLEN RECORD

\$4M

AVERAGE
COST OF
DATA
BREACH

Cyber Risk is the third biggest risk of doing business

*(Source World Economic Forum)



Data Security and Privacy are
increasing challenges in today's
Cloud based environments.

Providing an independent third-party assurance such as a SOC 2 report helps address these concerns and helps Cloud Service Providers (CSP) stay above the competition.

02

INCREASING CLOUD FACTOR



FORBES INDICATES THAT 83% OF ENTERPRISE WORKLOADS WILL BE IN THE CLOUD BY 2020.

19,188
total companies

\$134B
in funding

A [Crozdesk](https://crozdesk.com/software-research/saas-and-cloud-startup-report-2018/) report on Global Cloud Start-up Clusters 2017 indicated that there were 19,188 Cloud Service Providers with \$134B in funding.

“As cloud becomes increasingly mainstream through 2022, it will dominate ever-increasing portions of enterprise IT decisions.”

<https://crozdesk.com/software-research/saas-and-cloud-startup-report-2018/>

Cloud shift represents both risk and opportunity. As cloud becomes increasingly mainstream through 2022, it will dominate ever-increasing portions of enterprise IT decisions (including, in particular, system infrastructure).

<https://www.gartner.com/smarterwithgartner/cloud-shift-impacts-all-it-markets/>

IDC forecasts public cloud services spending reaching \$370 billion in 2022.

https://www.idc.com/getdoc.jsp?containerId=prUS44891519&utm_medium=rss_feed&utm_source=Alert&utm_campaign=rss_syndication

03

CLOUD CHALLENGES

Cloud services can provide organizations, including federal agencies, with the opportunity to increase the flexibility, availability, resiliency, and scalability of cloud services, which the organizations can, in turn, use to increase security, privacy, efficiency, responsiveness, innovation, and competitiveness. However, many organizations, especially those in regulated sectors like finance and healthcare, face additional security and privacy challenges when adopting cloud services.

Cloud platform hardware and software are evolving to take advantage of the latest hardware and software features, and there are hundreds or thousands of virtualized or containerized workloads that are spun up, scaled out, moved around, and shut down at any instant, based on business requirements. In such environments, organizations want to be able to monitor, track, apply, and enforce policies on the workloads, based on business requirements, in a consistent, repeatable, and automated way.



IN OTHER WORDS, ORGANIZATIONS WANT TO MAINTAIN **CONSISTENT SECURITY PROTECTIONS** AND TO HAVE VISIBILITY AND CONTROL FOR THEIR WORKLOADS ACROSS ON-PREMISES PRIVATE CLOUDS AND THIRD-PARTY HYBRID/PUBLIC CLOUDS IN ORDER TO MEET THEIR SECURITY AND COMPLIANCE REQUIREMENTS.

This is further complicated by organizations' need to comply with security and privacy laws applicable to the information that they collect, transmit, or hold, which may change depending on whose information it is (e.g., Europeans citizens under the General Data Protection Regulation), what kind of information it is (e.g., health information compared to financial information), and in what state or country the information is located. Additionally, an organization must be able to meet its own policies by implementing appropriate controls dictated by its risk-based decisions about the necessary security and privacy of its information.

Because laws in one location may conflict with an organization's policies or mandates (e.g., laws, regulations), an organization may decide that it needs to restrict the type of cloud servers it uses, based on the state or country. Thus, the core impediments to broader adoption of cloud technologies are the abilities of an organization to protect its information and virtual assets in the cloud, and to have sufficient visibility into that information so that it can conduct oversight and ensure that it and its CSP's are complying with applicable laws and business practices.

In addition, there are technical challenges and architectural decisions that have to be made when connecting two disparate clouds. An important consideration revolves around the type of wide area network connecting the on-premises private cloud and the hybrid/public cloud, because it may impact the latency of the workloads and the security posture of the management plane across the two infrastructures. (Source NIST).

MISCONFIGURED CLOUD SERVERS

“In 2018, the media sector topped the chart with 40 percent of publicly disclosed incidents. Half of these incidents involved misconfigured cloud servers and other improperly configured systems that leaked data or allowed a remote attacker to exploit the asset.”

“Attackers are targeting users of cloud services and misconfigured cloud servers are exposing customer and employee data”.

Organizations should check and monitor settings on cloud service architecture—do not maintain default settings. Vet third-party cloud vendors for high security standards before choosing to do business with them. Ensure you are aware of who controls each component of your cloud infrastructure and define policies for where and how security measures are deployed. Implement the same security policies you would employ for classic IT infrastructure.

(Source IBM 2018 Report).

VENDOR (THIRD-PARTY) RISKS

From a cybersecurity perspective, third party risks frequently involve a set of threats that may exceed the scope of the organization's risk management activities. Some organizations focus too narrowly on risks. For example, when hosting data in the cloud, most organizations ask the vendor for attestations or some evidence of cybersecurity capability.

(Source Software Engineering Institute).



BREACHES AND REGULATIONS MAKE VENDOR RISK A PRIORITY

VENDOR-RELATED DATA BREACHES ON THE RISE

63%

OF ALL DATA BREACHES CAN BE LINKED DIRECTLY OR INDIRECTLY TO THIRD PARTIES

- SOHA SYSTEMS

DON'T BELIEVE VENDORS WOULD NOTIFY THEM OF A DATA BREACH

37%

(Source Ponemon Institute LLC).

REGULATORY LIABILITY HAS SHIFTED

CONTROLLERS ARE LIABLE FOR THEIR COMPLIANCE WITH THE GDPR AND **MUST ONLY APPOINT PROCESSORS WHO CAN PROVIDE 'SUFFICIENT GUARANTEES' THAT THE REQUIREMENTS OF THE GDPR WILL BE MET** AND THE RIGHTS OF THE SUBJECTS PROTECTED.

(Source Cloud Security Alliance).

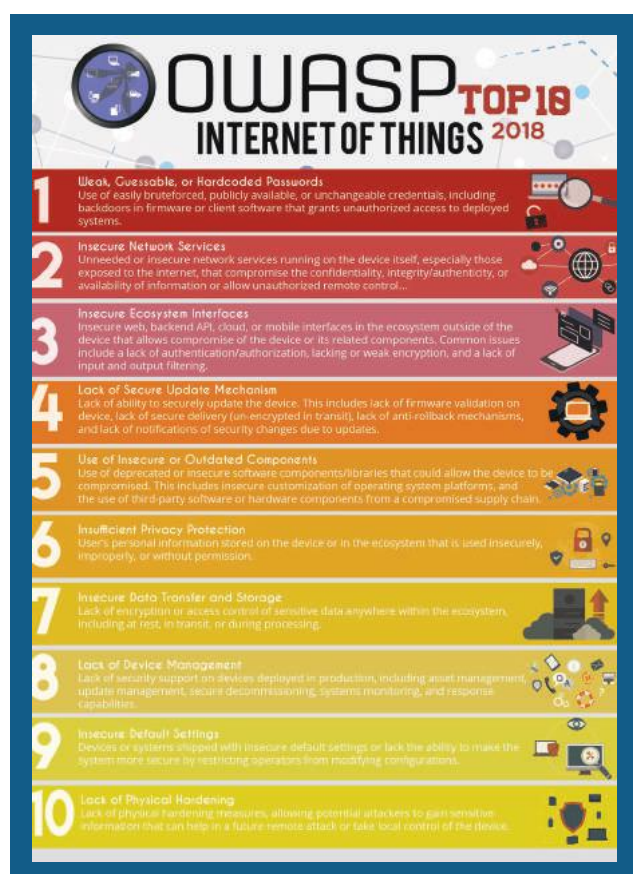
ico.
Information Commissioner's Office

IOT AND CLOUD

Connected devices and cyber-physical systems are becoming more prevalent in enterprise environments. As the cloud environment expands to encompass these technologies, the connected world depends on devices to manage, orchestrate and provision data.

By 2023 the number of connected devices is forecast to reach 20 Billion.

This increase in volume is a growing challenge for service providers tasked with trying to keep their networks secure, as well as for enterprises and critical infrastructure entities deploying and managing devices.



Insecure data flow from the Edge to the Cloud is a concern of the IoT model of processing of data. Processing of data can be done either at the edge or at the Cloud. Edge computing provides a way to allow applications and services to gather or process data to the local computing devices, away from centralized nodes enabling analytics and knowledge generation to the logical extremes of the network. Although edge computing enhances instantaneous response and subsequent decision making (e.g. use of machine learning to make autonomous decisions), it also results in a distributed, unsafe and uncontrollable disarray of data which can become critical when taking into account the amount and the sensitivity of data that is transmitted. Limited processing and storage capabilities of some endpoints may restrict security features, such as authentication, encryption and integrity protection mechanisms, jeopardizing both access control as well as the confidentiality or integrity of data transmitted to the Cloud. Even when security features are enabled, faulty implementation can have a great impact on the security of the entire model.

DDoS (distributed denial-of-service) botnet attack is another of the TOP 10 IoT Risks.

The Mirai botnet exploited a vulnerability in IoT devices to launch a DDoS attack against a critical DNS server that disrupted a number of the internet's biggest websites, including PayPal, Spotify, and Twitter.

According to OWASP, both aspects of security in this convergence are facing challenges from each other. Cloud Web Interface is listed as one of the attack surfaces of IoT, while Cloud Top 10 Security Risks include Service and Data Integration, which is bounded to the security of IoT devices.

Security Responsibilities in the Cloud

At a high level, security responsibility maps to the degree of control any given actor has over the architecture stack:

01 Software as a Service (SaaS):

The CSP is responsible for nearly all security, since the cloud user can only access and manage their use of the application, and can't alter how the application works. For example, a SaaS provider is responsible for perimeter security, logging/monitoring/auditing, and application security, while the consumer may only be able to manage authorization and entitlements.

02 Platform as a Service (PaaS):

The CSP is responsible for the security of the platform, while the consumer is responsible for everything they implement on the platform, including how they configure any offered security features. The responsibilities are thus more evenly split. For example, when using a Database as a Service, the provider manages fundamental security, patching, and core configuration, while the cloud user is responsible for everything else, including which security features of the database to use managing accounts or even authentication methods.

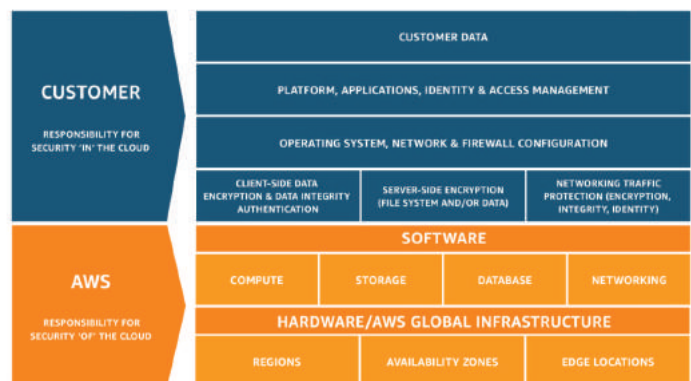
03 Infrastructure as a Service (IaaS):

Just like PaaS, the provider is responsible for foundational security, while the cloud user is responsible for everything they build on the infrastructure. Unlike PaaS, this places far more responsibility on the client. For example, the IaaS provider will likely monitor their perimeter for attacks, but the consumer is fully responsible for how they define and implement their virtual network security, based on the tools available on the service.



Amazon's Shared Responsibility Model

Some SaaS providers believe that if they are hosting their application on Amazon AWS, they are automatically compliant just because Amazon AWS may be. This may be applicable to other IaaS or PaaS providers.



SaaS CSP's may also need to review the exact controls in the SOC reports and examine whether the relevant controls and criteria are covered in those SOC reports. Availability of SOC report should not be just a checkbox for third-party (vendor) risk compliance.

This customer/AWS shared responsibility model also extends to IT controls. Just as the responsibility to operate the IT environment is shared between AWS and its customers, so is the management, operation, and verification of IT controls shared. AWS can help relieve customer burden of operating controls by managing those controls associated with the physical infrastructure deployed in the AWS environment that may previously have been managed by the customer. As every customer is deployed differently in AWS, customers can take advantage of shifting management of certain IT controls to AWS which results in a (new) distributed control environment.

Customers can then use the AWS control and compliance documentation available to them to perform their control evaluation and verification procedures as required.

<https://aws.amazon.com/compliance/shared-responsibility-model/>

Governance in Cloud

Governance issues also relate to regulatory compliance, security, privacy, and similar concerns impacting today’s organizations. Today’s data management and storage landscape, where data entropy and data sprawl are rampant, has wide-reaching consequences for data security.

Many organizations are storing significant data in distributed and hybrid cloud and even unmanaged environments increasing challenges for regulatory compliance. A data inventory and data flow are often recommended. With increasing IoT devices and data lakes in the cloud, **the Visibility and Control are invariably lost resulting in Data Sovereignty challenges. Data Encryption is another factor to consider in the wake of compliance mandates such as GDPR, HIPAA, PCI -DSS etc.**



Disruptive technologies like Blockchain (Distributed ledger) has emerged as a candidate for financial institutions to reform their businesses. The speed and cost of doing business using distributed ledger technology are expected to improve by simplifying back-office operations and lowering the need for human intervention. However, a number of security concerns around this new technology remain.

DOMAIN	TITLE	DESCRIPTION
	Governance and Enterprise Risk Management.	The ability of an organization to govern and measure enterprise risk introduced by cloud computing. Items such as legal precedence for agreement breaches, ability of user organizations to adequately assess risk of a cloud provider, responsibility to protect sensitive data when both user and provider may be at fault, and how international boundaries may affect these issues.
	Legal Issues: Contracts and Electronic Discovery.	Potential legal issues when using cloud computing. Issues touched on in this section include protection requirements for information and computer systems, security breach disclosure laws, regulatory requirements, privacy requirements, international laws, etc.
	Compliance and Audit Management.	Maintaining and proving compliance when using cloud computing. Issues dealing with evaluating how cloud computing affects compliance with internal security policies, as well as various compliance requirements (regulatory, legislative, and otherwise) are discussed here. This domain includes some direction on proving compliance during an audit.
	Information Governance.	Governing data that is placed in the cloud. Items surrounding the identification and control of data in the cloud, as well as compensating controls that can be used to deal with the loss of physical control when moving data to the cloud, are discussed here. Other items, such as who is responsible for data confidentiality, integrity and availability are mentioned.

(Source Cloud Security Alliance).

04

CLOUD ASSURANCE FOR CSP'S

SOC 2 FOR CLOUD CSA STAR ATTESTATION

Cloud Security Alliance (CSA) in collaboration with the AICPA, developed a third-party assessment program of CSP officially known as CSA Security Trust & Assurance Risk (STAR) Attestation. STAR Attestation provides a framework for CPAs performing independent assessments of CSP using SOC 2 engagements with the CSA's Cloud Controls Matrix (CCM).

www.cloudsecurityalliance.org/star/attestation/

CLOUD CONTROLS MATRIX (CCM)

The CCM is the only meta-framework of cloud-specific security controls, mapped to leading standards, best practices and regulations. CCM provides organizations with the needed structure, detail, and clarity relating to information security tailored to cloud computing. CCM is currently considered a de-facto standard for cloud security assurance and compliance.

CLOUD STAR CERTIFICATION ROADMAP

CSA Security Trust, Assurance and Risk (STAR) is the industry's most powerful program for security assurance in the cloud. STAR encompasses key principles of transparency, rigorous auditing, and harmonization of standards. The STAR program provides multiple benefits, including indications of best practices and validation of the security posture of cloud offerings.

LEVEL 2 CSA *STAR ATTESTATION

The STAR Attestation is positioned as STAR Certification at Level 2 of the Open Certification Framework and STAR Certification is a rigorous third party independent assessment of the security of a cloud service provider. STAR Attestation is based on type I or type II SOC attestations supplemented by the criteria in the Cloud Controls Matrix (CCM).



WE ARE LISTED AS AUDITORS WITH CSA FOR THEIR STAR ATTESTATION



TYPE OF AUDIT	AUDIT FREQUENCY		Security	Privacy
	Icon	STAR Level	Assessment Type	Certification Type
TYPE OF AUDIT	Icon 1	STAR Level 3	Continuous Auditing	_____
	Icon 2	STAR Level 2 Continuous	Level 2 + Continuous Self-Assessment	_____
	Icon 3	STAR Level 2	3rd Party Certification	GDPR CoC Certification
	Icon 4	STAR Level 1 Continuous	Continuous Self-Assessment	_____
		STAR Level 1	Self-Assessment	GDPR CoC Self-Assessment

Figure 1 Open Certification Framework

THE STAR ASSESSMENT:

- » Is based on a mature attestation standard.
- » Allows for immediate adoption of the CCM as additional criteria and the flexibility to update the criteria as technology and market requirements change.
- » Does not require the use of any criteria that were not designed for, or readily accepted by CSP.
- » Provides for robust reporting on the service provider's description of its system and on the service provider's controls, including a description of the service auditor's tests of controls in a format very similar to the current SSAE 18 reporting, thereby facilitating market acceptance.

STAR Attestation builds on the key strengths of SOC 2:

- » Is a mature attest standard (it serves as the standard for SOC 2 and SOC 3 reporting).
- » Provides for robust reporting on the service provider's description of its system and on the service provider's controls, including a description of the service auditor's tests of controls in a format very similar to the current SSAE 18 reporting, thereby facilitating market acceptance.
- » Evaluation over a period of time rather than a point in time.
- » Recognition with an AICPA Logo.

(STAR is a registered trademark of Cloud Security Alliance).

CSA CONTINUOUS ASSESSMENT (LEVEL 2 & 3 CONTINUOUS)

STAR Level 2 Continuous builds on top of the STAR Level 2 requirement of third-party assessments, and improves it by allowing the CSP to demonstrate a higher level of assurance and transparency by the addition of a Continuous Self-Assessment.

In STAR Level 2, a CSP is assessed by a third-party through one of the Level 2 programs against a determined and appropriate scope. The Level 2 programs, including STAR Certification, STAR Attestation, and C-STAR, are based on varied but demanding cloud security criteria of the CSA CCM, ISO/IEC 27001 or the AICPA Trust Services Criteria (TSC), applied towards the CSP's assessment scope.

Level 3 Continuous Certification is a highly selective cloud security assessment program, extending the assurance level of a cloud service beyond the trust given by the certification cycle of ISO/IEC 27001 and the audit period of AICPA SOC 2 Type II reports.

STAR Level 3 Continuous requires all continuous assessments to be performed under the supervision of a third-party auditor. This differs from Level 2 Continuous, which requires a frequently submitted self-assessment on top of Level 2 by the CSP itself.



SOC 2 V/S ISO 27001/270017

Many CSP's may also have adopted ISO 27001/27017 for their cloud environment. How SOC compares to this standard is provided in the table below:

AREA	ISO 27001/27017	SOC 2 TYPE II
Standard	International Standard ISO/IEC 27001, Second Edition 2013-10-01, ISMS- Information Security Management Systems	Trust Services Principles and Criteria for Security, Availability, Process Integrity, Confidentiality and /or Privacy
Governance	ANSI-ASQ National Accreditation Board (ANAB)	AICPA
Purpose	Assist organization's management in establishment and certification of ISMS that meets specified requirements and is able to be certified as best practice	Assist service organization's management in reporting to customers that it has met established security criteria that ensure that the system is protected against Unauthorized Access
Applicability	Statement of Applicability (SoA) of controls	System Description by Management
Period Covered	Point in Time. i.e. as on a date	Period of Time i.e. for the period ended xxxx (date)
Objective	Establish, implement, maintain, and improve the ISMS	Measure a service organization against specific security principles and criteria
Period Covered	Re-Certified for every 3 years	Attestation provided every 1 year (or 6 months)
Audit Frequency	Surveillance audit conducted Annually	Continuous monitoring during the period
Certified/ Attested by	ISO Accredited Registrar Certification	Attestation by a Licensed CPA
Nature of Testing	Design effectiveness	Design effectiveness and operating effectiveness
Controls in report	Details of Controls not provided	Details of Controls provided
Focus	Organization's ability to maintain an ISMS	Technology and the processes behind the security of the specific service

AREA	ISO 27001/27017	SOC 2 TYPE II
Report	Single page Certification	Report containing the auditor's opinion, management's assertion, description of controls, user control considerations, tests of controls, and results
Difficulty to Achieve	Moderate	Higher
Structure	Information Security Framework	Principles and Criteria

C5 CLOUD CONTROLS

In February 2016, the Bundesamt für Sicherheit in der Informationstechnik (BSI), or the German Federal Office for Information Security, established the Cloud Computing Compliance Controls Catalogue (C5) certification after they noted the rise in cloud computing in the country. With the C5, the BSI redefined the bar that CSP should meet when dealing with German data. The establishment of the C5 elevated the demands on CSP by combining the existing security standards (including international certifications like the ISO 27001), and requiring increased transparency in data processing. **C5 controls can be applied globally.**

C5 is intended primarily for professional cloud service providers, their auditors, and customers of the CSP's. The catalogue is divided into 17 thematic sections (e.g. organisation of information security, physical security). C5 makes use of recognised security standards such as 27001, the Cloud Controls Matrix of the Cloud Security Alliance as well as BSI publications and uses these requirements wherever appropriate.



A SOC 2 report proves that a CSP complies with the requirements of the catalogue and that the statements made on transparency are correct.

This report is based on the internationally recognised attestation system of the ISAE 3000, which is used by public auditors. When auditing the annual financial statements, the auditors are already on site and auditing according to

C5 can be performed with not too great additional effort.

https://www.bsi.bund.de/EN/Topics/CloudComputing/Compliance_Controls_Catalogue/Compliance_Controls_Catalogue_node.html

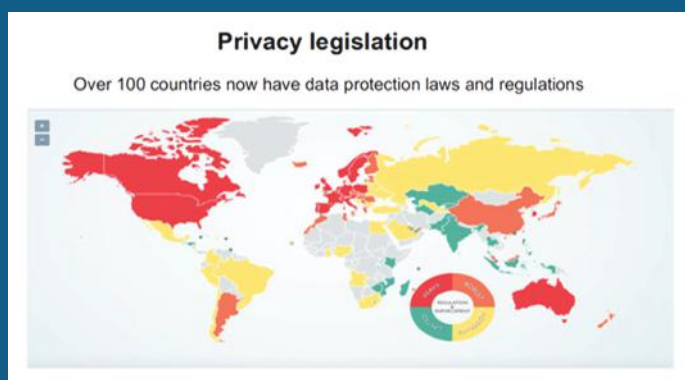
05

Privacy Compliance for Cloud

Privacy has grabbed the attention of Boards of Directors as regions look to implement privacy regulation and compliance standards similar to GDPR. Privacy is the new buzzword and the potential impact is very real. Personal data is processed for political and economic reasons without users' consent, as happened in the Cambridge Analytica. In view of the recent incidents privacy laws are changing and going forward they may become more stringent. It may be prudent for organizations to be more proactive and adopt measures for Privacy Governance.



PRIVACY IS A HUMAN RIGHT,
WE NEED A GDPR FOR THE
WORLD:
MICROSOFT CEO



<https://www.weforum.org/agenda/2019/01/privacy-is-a-human-right-we-need-a-gdpr-for-the-world-microsoft-ceo/>

<https://www.dlapiperdataprotection.com/index.html>

THE SOC 2 PRIVACY CRITERIA

To demonstrate the privacy related controls, Organizations can include the privacy criteria as part of the scope of their SOC 2 report. Additionally, controls for any other specific laws too can be included as Additional Subject Matter. The AICPA Privacy Criteria broad requirements are described in the following paragraphs. Many of these requirements match to the legislation like EU-GDPR. **In the wake of such new privacy mandates organizations are encouraged not only include the privacy criteria in their SOC 2 report but also to demand including them in their vendors SOC 2 report.**

SOC 2 DESCRIPTION FOR PRIVACY

When the description addresses privacy, service organization management discloses the service commitments and system requirements identified in the service organization's privacy notice or in its privacy policy that are relevant to the system being described.

When making such disclosures, it may also be helpful to report users if service organization management describes the purposes, uses, and disclosures of personal information permitted by user entity agreements.



PRINCIPAL SYSTEM REQUIREMENTS

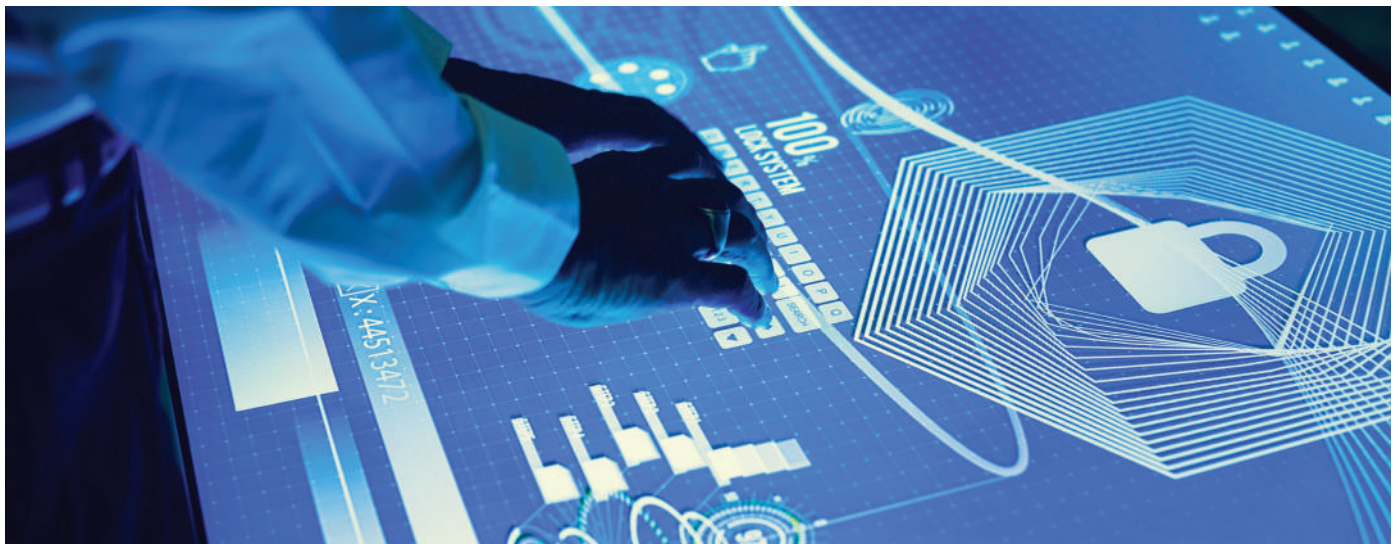
System requirements are the specifications about how the system should function to do the following:

- » Meet the service organization's service commitments to user entities and others (such as user entities' customers).
- » Meet the service organization's commitments to vendors and business partners.
- » Comply with relevant laws and regulations and guidelines of industry groups, such as business or trade associations.
- » Achieve other objectives of the service organization that are relevant to the trust services categories addressed by the description.

Requirements are often specified in the service organization's system policies and procedures, system design documentation, contracts with customers, and government regulations.

The following are examples of system requirements:

- 01 Workforce member fingerprinting and background checks established in government banking regulations.
- 02 System edits that restrict the values accepted for system input, which are defined in application design documents.
- 03 Maximum acceptable intervals between periodic review of workforce member logical access as documented in the security policy manual.
- 04 Data definition and tagging standards, including any associated meta data requirements, established by industry groups or other bodies, such as the Simple Object Access Protocol (SOAP).
- 05 Business processing rules and standards established by regulators, for example, security requirements under the Health Insurance Portability and Accountability Act (HIPAA).



DATA

Disclosures about the data component include types of data used by the system, transaction streams, files, databases, tables, and output used or processed by the system. When the description addresses the confidentiality or privacy categories, other matters that may be considered for disclosure about the data component include the following:

- » The principal types of data created, collected, processed, transmitted, used, or stored by the service organization and the methods used to collect, retain, disclose, dispose of, or anonymize the data.
- » Personal information that warrants security, data protection, or breach disclosures based on laws or commitments (for example, personally identifiable information, protected health information, and payment card data).
- » Third-party entity information (for example, information subject to confidentiality requirements in contracts) that warrants security, data protection, or breach disclosures based on laws or commitments.



AICPA Trust Services Criteria (TSC) for Privacy

With about **50 points of focus**, the TSC organizes the privacy criteria as follows:

Notice and communication of objectives.	The entity provides notice to data subjects about its objectives related to privacy.
Choice and consent.	The entity communicates choices available regarding the collection, use, retention, disclosure, and disposal of personal information to data subjects.
Collection.	The entity collects personal information to meet its objectives related to privacy.
Use, retention, and disposal.	The entity limits the use, retention, and disposal of personal information to meet its objectives related to privacy.
Access.	The entity provides data subjects with access to their personal information for review and correction (including updates) to meet its objectives related to privacy.

Disclosure and notification.

The entity discloses personal information, with the consent of the data subjects, to meet its objectives related to privacy. Notification of breaches and incidents is provided to affected data subjects, regulators, and others to meet its objectives related to privacy.

Quality.

The entity collects and maintains accurate, up-to-date, complete, and relevant personal information to meet its objectives related to privacy.

Monitoring and enforcement.

The entity monitors compliance to meet its objectives related to privacy, including procedures to address privacy-related inquiries, complaints, and disputes.

06

Cloud Security for Users

Cloud users, at a minimum, should consider implementing the following controls:

- » Include cloud security and privacy risks, as part of your risk management life cycle.
- » Create a secure architecture using concept of security and privacy by design.
- » Document your data flow and implement data security controls.
- » Implement and review Role Based Access Controls (RBAC).
- » Perform VA/PT of your cloud applications and environment.
- » Evaluate SOC reports with relevant controls of your CSP's.
- » Implement secure access methodology e.g. TLS, MFA etc.
- » Implement resiliency controls.
- » Follow a Deming Cycle approach to cloud security & privacy.
- » Perform periodic audits of your hybrid environment.

Our value delivery

Knowing how much extra value and assurance a SOC reports can deliver, many clients find that it makes sense to take steps to ensure a more successful outcome, including hiring experts who are skilled in helping organizations be more thorough and thoughtful in how they approach their engagement. Preparing for a SOC engagement is a matter of clear thinking and smart planning. Working with a cyber security specialist such as ours, helps you dig into areas such as cloud security, data security, privacy, incident response, and much more.

Some of the advantages of working with us are:

A

- » End to end process for SOC Reporting & Attest Services
- » Project management methodology consistently applied to each engagement

B

- » Efficient service delivery with minimal disruption to operations
- » Our engagements are executed by senior experienced professionals

C

- » 15 years of Information Security & Cyber Security experience
- » Reduced time to complete assignments

D

- » Licensed CPA Firm listed with PCAOB and Cloud Security Alliance
- » Prompt services with engagements completed in record time

E

- » Ongoing support. We are with you whenever you need us

Contact us for a detailed discussion:



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