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in progress

Webinar

สร้างความเชื่อมั่นในบริการด้านคลาวด์ด้วย *CSA STAR V.4*

(Security on Cloud Services by CSA STAR V.4)

บรรยายโดย

อาจารย์กิตติพงษ์ เกียรตินิยมรุ่ง

Product Technical Manager, BSI Thailand

Discussion items

Background CSA STAR

สรุปข้อกำหนด CSA CCM version 4

การ certification process - CSA CCM Version 4

Background CSA STAR

Who is the cloud security alliance?

- Founded 2008
- Support global policy makers
- Currently 31 research initiatives and working groups

cloud CSA security alliance®

STAR CERTIFICATION (ISO/IEC 27001)

Figure 3

STAR CERTIFICATION (ISO/IEC 27001)

Acquia

Acquia offers enterprises unparalleled freedom to innovate and increase business agility by creating extraordinary web experiences. The fastest growing open clo...

Listed Since: 01/13/2013

Submissions:
CAIQ

Submissions:
Certification

View Listing

Acronis

Acronis International GmbH

Acronis sets the standard for cyber protection through its innovative backup, anti-ransomware, disaster recovery, storage, and enterprise file sync and share so...

Listed Since: 05/06/2020

Submissions:
CAIQ

View Listing

The CCM and maturity modelling

Management capability score

1-3 No formal approach

4-6 Reactive approach

7-9 Proactive approach

10-12 Improvement based approach

13-15 Optimizing approach

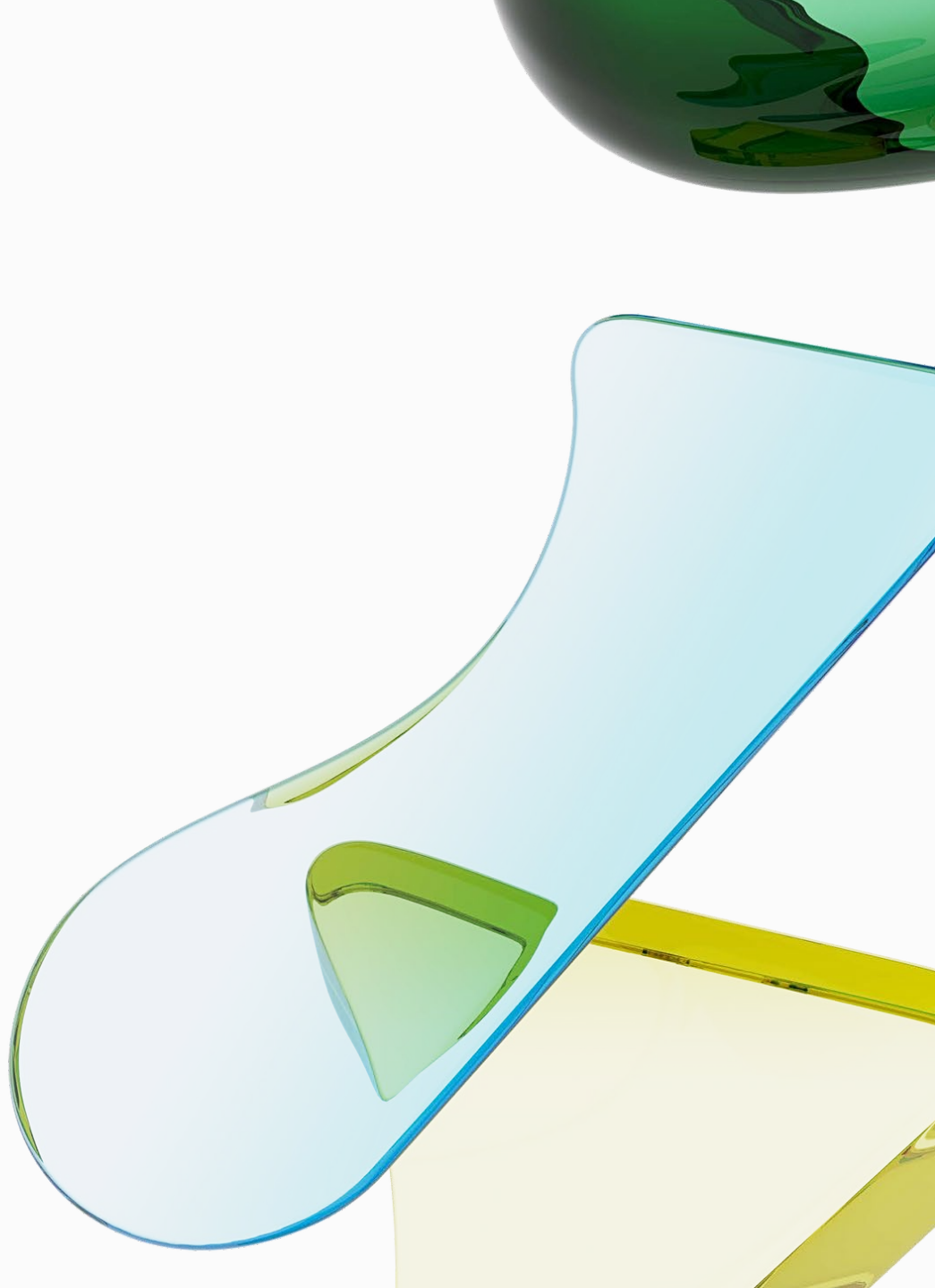
Reporting format and awards

Control Domain	Control Title	Control ID	Control Specification	ISO/IEC 27001:2013 Control Mapping	Is the Control applicable?	Evidence the controls in place	Select NC status	Evidence of the maturity level	Select the Score	FINAL SCORE	ISO/IEC 27017:2015 and ISO/IEC 27018:2019 Control Mapping
						Complete all the cells below					
Audit & Assurance	Audit and Assurance Policy and Procedures	**A&A-01**	Establish, document, approve, communicate, apply, evaluate and maintain audit and assurance policies and procedures and standards. Review and update the policies and procedures at least annually.	9.2							
Audit & Assurance	Independent Assessments	**A&A-02**	Conduct independent audit and assurance assessments according to relevant standards at least annually.	A.18.2.1							
Audit & Assurance	Risk Based Planning Assessment	**A&A-03**	Perform independent audit and assurance assessments according to risk-based plans and policies.	A.18.2.1							**27018: 18.2.1**
Audit & Assurance	Requirements Compliance	**A&A-04**	Verify compliance with all relevant standards, regulations, legal/contractual, and statutory requirements applicable to the audit.	A.18.2.2 A.18.2.3							
Audit & Assurance	Audit Management Process	**A&A-05**	Define and implement an Audit Management process to support audit planning, risk analysis, security control assessment, conclusion, remediation schedules, report generation, and review of past reports and supporting evidence.	9.2.c A.18.2.2							
Audit & Assurance	Remediation	**A&A-06**	Establish, document, approve, communicate, apply, evaluate and maintain a risk-based corrective action plan to remediate audit findings, review and report remediation status to relevant stakeholders.	A.18.2.2							
								Audit & Assurance - SCORE	**0**	**0**	

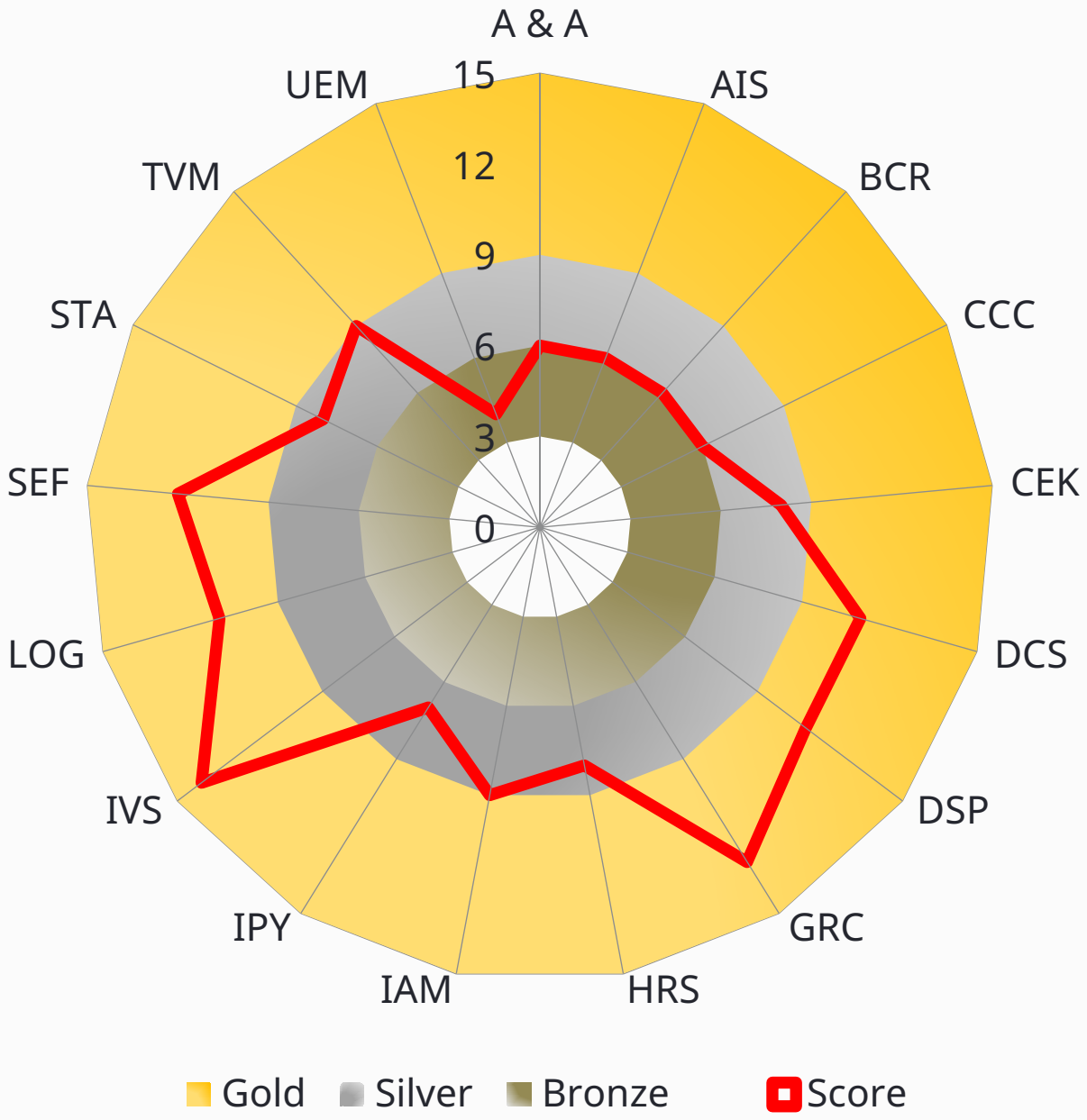
Reporting and format awards

AIS-01	9	
AIS-02	7	
AIS-03	8	
AIS-04	8	
AIS-05	7	
AIS-06	3	
AIS-07	8	
	3	3

Reporting and format awards

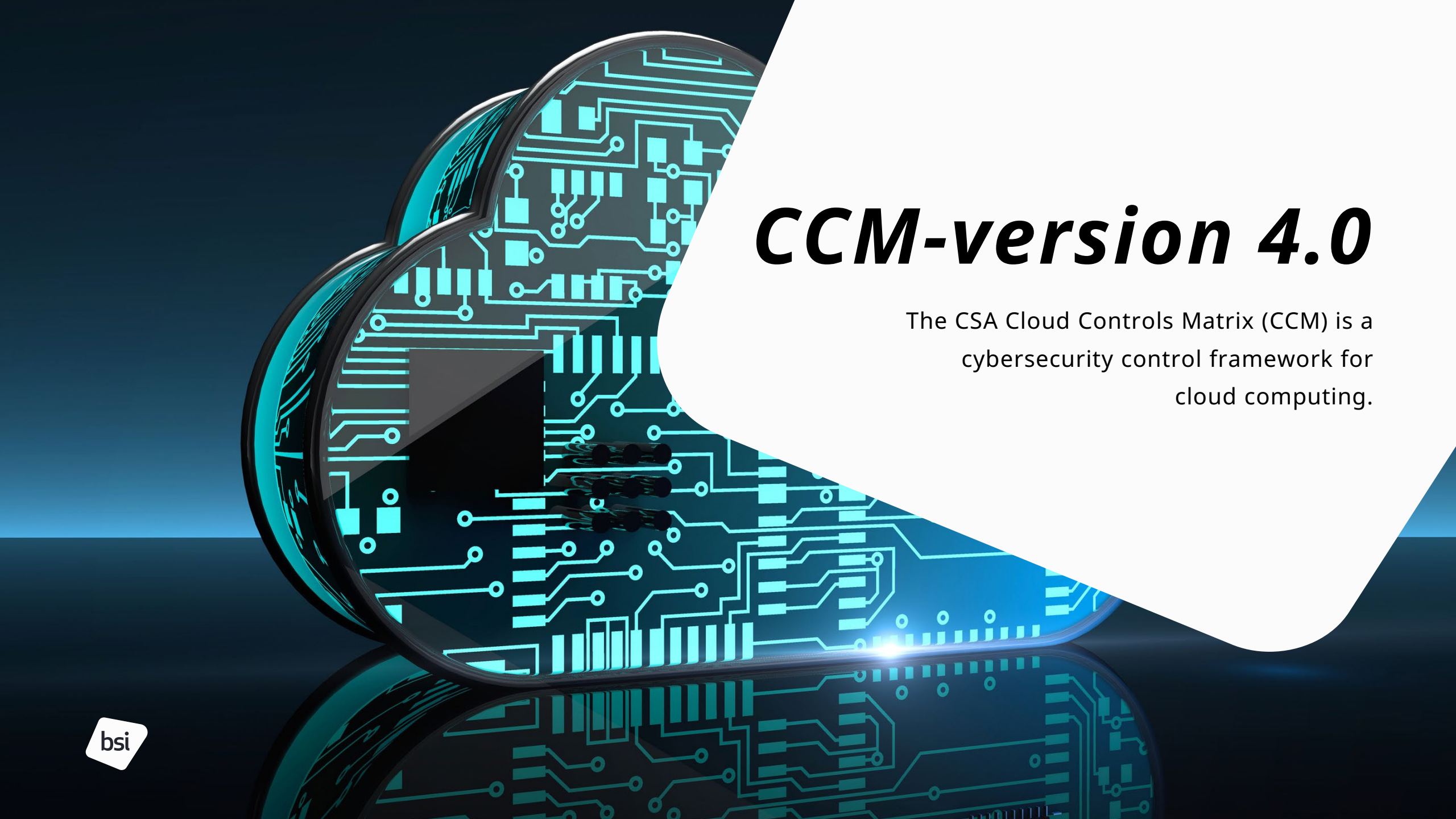


Reporting format and awards



Maturity model

Score	1 to 3	4 to 6	7 to 9	10 to 12	13 to 15
	No Formal Approach	Reactive	Proactive	Improving	Optimizing
Evidence/ Definition	1. There is no evidence or a system in place to manage the control area	4. There is evidence of a system in place to cover key operations in the control area. Where required, the system is documented	7. There is evidence of a robust system in place that covers all routine operations in the control area	10. There is evidence the system for managing the control area is capable of managing contingency events as well as routine activity	13. Control area owners can demonstrate that they actively review best practice from their industry and across their organization and apply it to the control area
Managed	2. There is some evidence of either a documented system or an accepted way of working is in place	5. There is a clearly identified owner for the control area who understands their scope of responsibility	8. There is evidence that the control area is actively monitored and measured and action evaluated based on the evidence	11. Input from a variety of sources is considered to decide how to manage risk and improve operations in this control area	14. Control owners actively share best practice to support development in other areas of the organization based on their experience in this control area
Followed / Effective	3. There is some evidence of an accepted way of working that is broadly understood and followed	6. There is evidence the system is understood and routinely followed	9. There is evidence that critical people operating in the control area are appropriately trained / skilled to manage routine operations in the control area	12. There is evidence that inputs from a range of stakeholders and monitoring and measuring systems has been taken into account when improving operations in the control area	15. Changes in the control area are evaluated against the strategic objectives of the organization



CCM-version 4.0

The CSA Cloud Controls Matrix (CCM) is a cybersecurity control framework for cloud computing.

Structure of CCM version 4

17 security domains and 197 controls

Security Shared Responsibility Model (SSRM)

Applicability with others internal standard (mapping)

Implement guideline

Auditing guideline

All above in one Excel file

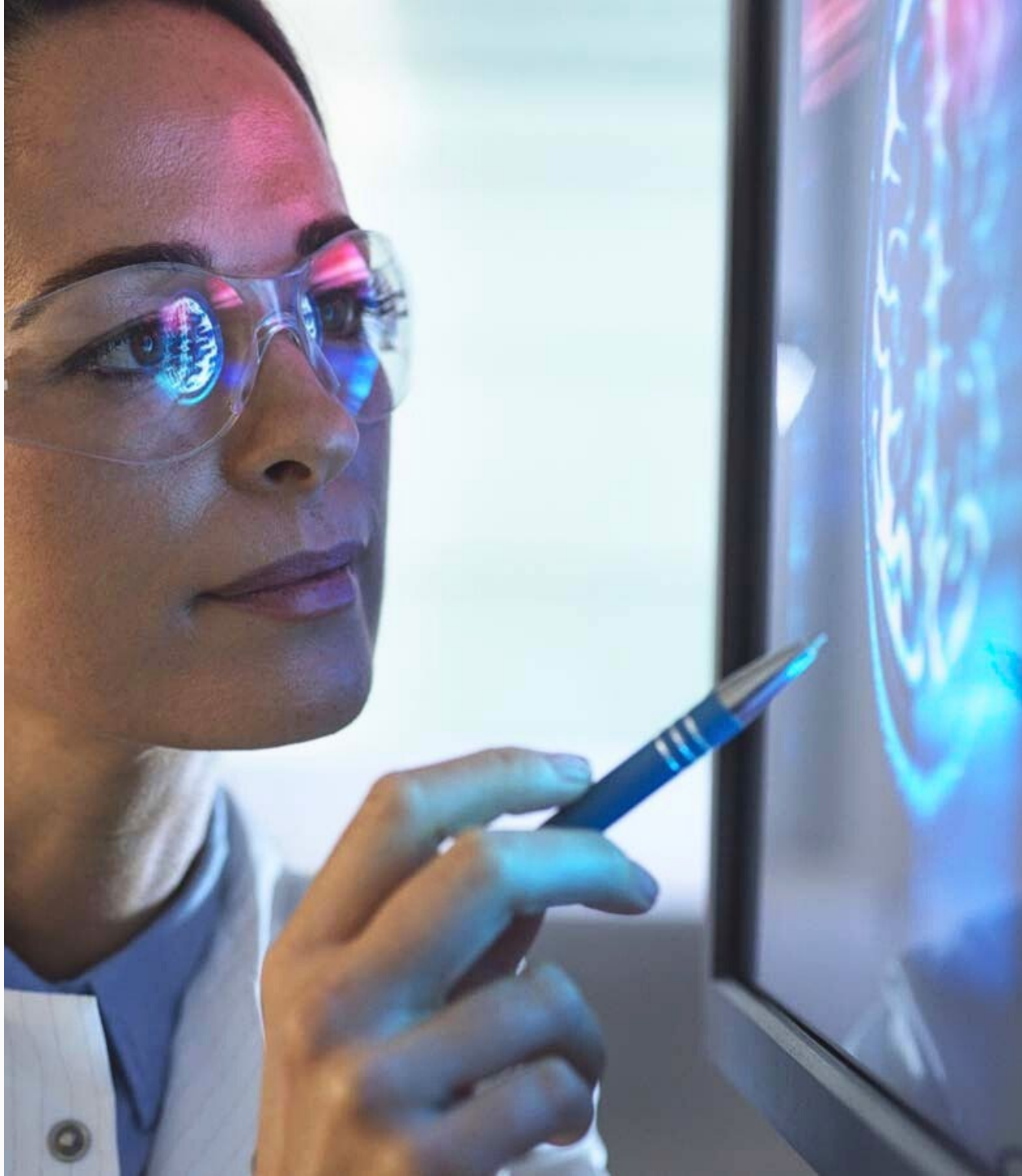
Cloud Controls Matrix CCM V. 4
197 controls

Human resources	Application and interface security	Change control and configuration management	Datacenter security and privacy	Infrastructure and virtualization	Identity access management	Logging and monitoring
Business continuity management and operational resilience	Cryptography encryption and key management	Application and interface security	Governance, risk management and compliance	Interoperability and portability	Security incident management, e-discovery and cloud forensics	Supply chain management, transparency and accountability
		Universal endpoint management	Audit and Assurance	Threat and Vulnerability management		

Cloud Controls Matrix CCM V. 4 -197 controls

These 17 domains contain a total of 197 Cloud Security Controls. Each control can have multiple relationships with the mapping frameworks. By mapping the Cloud Security Controls to the ISO/IEC 27001 clauses and controls, we can start to understand the management system structure of the CCM controls put in place by an organization.

As a framework, the CSA CCM provides organizations with the needed structure, detail and clarity relating to information security tailored to the cloud industry.



Map CCM controls to ISO/IEC 27001

CCM CLOUD CONTROLS MATRIX v4.0.5						
				ISO/IEC 27001/02/17/18		
Control Domain	**Control Title**	**Control ID**	**Control Specification**	**Control Mapping**	**Gap Level**	**Addendum**
Audit & Assurance	Audit and Assurance Policy and Procedures	**A&A-01**	Establish, document, approve, communicate, apply, evaluate and maintain audit and assurance policies and procedures and standards. Review and update the policies and procedures at least annually.	**27001: 9.2**	**Partial Gap**	Missing specification(s) in ISOs: Requirement of 'at least annually' in last sentence.
Audit & Assurance	Independent Assessments	**A&A-02**	Conduct independent audit and assurance assessments according to relevant standards at least annually.	**27001: A.18.2.1** **27002: 18.2.1**	**Partial Gap**	Missing specification(s) in ISOs: Terms 'audit and assurance' and 'at least annually' are not specifically called out.
Audit & Assurance	Risk Based Planning Assessment	**A&A-03**	Perform independent audit and assurance assessments according to risk-based plans and policies.	**27001: A.18.2.1** **27002: 18.2.1** **27018: 18.2.1**	**No Gap**	N/A
Audit & Assurance	Requirements Compliance	**A&A-04**	Verify compliance with all relevant standards, regulations, legal/contractual, and statutory requirements applicable to the audit.	**27001: A.18.2.2** **27002: 18.2.2** **27001: A.18.2.3** **27002: 18.2.3**	**No Gap**	N/A

CCM version 4 - Share responsibility model

				Typical Control Applicability and Ownership			Architectural Relevance – Cloud Stack Components						
Control Domain	Control Title	Control ID	Control Specification	IaaS	PaaS	SaaS	Phys	Network	Compute	Storage	App	Data	Cy
Audit & Assurance – A&A													
Audit & Assurance	Audit and Assurance Policy and Procedures	A&A-01	Establish, document, approve, communicate, apply, evaluate and maintain audit and assurance policies and procedures and standards. Review and	Shared	Shared	Shared	TRUE	FALSE	FALSE	FALSE	TRUE	TRUE	
Audit & Assurance	Independent Assessments	A&A-02	Conduct independent audit and assurance assessments according to relevant standards at least annually	Shared	Shared	Shared	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	
Audit & Assurance	Risk Based Planning Assessment	A&A-03	Perform independent audit and assurance assessments according to risk-based plans and policies	Shared	Shared	Shared	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	
Audit & Assurance	Requirements Compliance	A&A-04	Verify compliance with all relevant standards, regulations, legal/contractual, and statutory requirements applicable to the audit	Shared	Shared	Shared	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	
Audit & Assurance	Audit Management Process	A&A-05	Define and implement an Audit Management process to support audit planning, risk analysis, security control assessment, conclusion, remediation schedules, report generation, and review of past reports and	Shared	Shared	Shared	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	
Audit & Assurance	Remediation	A&A-06	Establish, document, approve, communicate, apply, evaluate and maintain a risk-based corrective action plan to remediate audit findings, review and report remediation status to relevant stakeholders.	Shared	Shared	Shared	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	
Application & Interface Security – AIS													

Audit and Assurance A&A

Audit & Assurance - A&A

Control ID	Control Title	Control ID	Control Title
A&A-01	Audit and Assurance Policy and Procedures	A&A-04	Requirements Compliance
A&A-02	Independent Assessments	A&A-05	Audit Management Process
A&A-03	Risk Based Planning Assessment	A&A-06	Remediation

Application and Interface Security - AIS

Application and Interface Security - AIS

Control ID	Control Title	Control ID	Control Title
AIS-01	Application and Interface Security Policy and Procedures	AIS-05	Automated Application Security Testing
AIS-02	Application Security Baseline Requirements	AIS-06	Automated Secure Application Deployment
AIS-03	Application Security Metrics	AIS-07	Application Vulnerability Remediation
AIS-04	Secure Application Design and Development		

Business Continuity Management and Operational Resilience - BCR

Business Continuity Management and Operational Resilience - BCR

Control ID	Control Title	Control ID	Control Title
BCR-01	Business Continuity Management Policy and Procedures	BCR-07	Communication
BCR-02	Risk Assessment and Impact Analysis	BCR-08	Backup
BCR-03	Business Continuity Strategy	BCR-08	Disaster Response Plan
BCR-04	Business Continuity Planning	BCR-10	Response Plan Exercise
BCR-05	Documentation	BCR-11	Equipment Redundancy
BCR-06	Business Continuity Exercises		

Change Control and Configuration Management - CCC

Change Control and Configuration Management - CCC

Control ID	Control Title	Control ID	Control Title
CCC-01	Change Management Policy and Procedures	CCC-06	Change Management Baseline
CCC-02	Quality Testing	CCC-07	Detection of Baseline Deviation
CCC-03	Change Management Technology	CCC-08	Exception Management
CCC-04	Unauthorized Change Protection	CCC-09	Change Restoration
CCC-05	Change Agreements		

Cryptography, Encryption and Key Management - CEK

Cryptography, Encryption and Key Management - CEK

Control ID	Control Title	Control ID	Control Title
CEK-01	Encryption and Key Management Policy and Procedures	CEK-12	Key Rotation
CEK-02	CEK Roles and Responsibilities	CEK-13	Key Revocation
CEK-03	Data Encryption	CEK-14	Key Destruction
CEK-04	Encryption Algorithm	CEK-15	Key Activation
CEK-05	Encryption Change Management	CEK-16	Key Suspension
CEK-06	Encryption Change Cost Benefit Analysis	CEK-17	Key Deactivation
CEK-07	Encryption Risk Management	CEK-18	Key Archival
CEK-08	CSC Key Management Capability	CEK-19	Key Compromise
CEK-09	Encryption and Key Management Audit	CEK-20	Key Recovery
CEK-10	Key Generation	CEK-21	Key Inventory Management
CEK-11	Key Purpose		

Datacenter Security - DCS

Datacenter Security - DCS

Control ID	Control Title	Control ID	Control Title
DCS-01	Off-Site Equipment Disposal Policy and Procedures	DCS-09	Secure Area Authorization
DCS-02	Off-Site Transfer Authorization Policy and Procedures	DCS-10	Surveillance System
DCS-03	Secure Area Policy and Procedures	DCS-11	Unauthorized Access Response Training
DCS-04	Secure Media Transportation Policy and Procedures	DCS-12	Cabling Security
DCS-05	Assets Classification	DCS-13	Environmental Systems
DCS-06	Assets Cataloguing and Tracking	DCS-14	Secure Utilities
DCS-07	Controlled Access Points	DCS-15	Equipment Location
DCS-08	Equipment Identification		

Data Security and Privacy Lifecycle Management

Data Security and Privacy Lifecycle Management - DSP

Control ID	Control Title	Control ID	Control Title
DSP-01	Security and Privacy Policy and Procedures	DSP-11	Personal Data Access, Reversal, Rectification and Deletion
DSP-02	Secure Disposal	DSP-12	Limitation of Purpose in Personal Data Processing
DSP-03	Data Inventory	DSP-13	Personal Data Sub-processing
DSP-04	Data Classification	DSP-14	Disclosure of Data Sub-processors
DSP-05	Data Flow Documentation	DSP-15	Limitation of Production Data Use
DSP-06	Data Ownership and Stewardship	DSP-16	Data Retention and Deletion
DSP-07	Data Protection by Design and Default	DSP-17	Sensitive Data Protection
DSP-08	Data Privacy by Design and Default	DSP-18	Disclosure Notification
DSP-09	Data Protection Impact Assessment	DSP-19	Data Location
DSP-10	Sensitive Data Transfer		

Governance, Risk and Compliance (GRC)

Governance, Risk and Compliance - GRC

Control ID	Control Title	Control ID	Control Title
GRC-01	Governance Program Policy and Procedures	GRC-05	Information Security Program
GRC-02	Risk Management Program	GRC-06	Governance Responsibility Model
GRC-03	Organizational Policy Reviews	GRC-07	Information System Regulatory Mapping
GRC-04	Policy Exception Process	GRC-08	Special Interest Groups

Human Resources (HRS)

Human Resources - HRS

Control ID	Control Title	Control ID	Control Title
HRS-01	Background Screening Policy and Procedures	HRS-08	Employment Agreement Content
HRS-02	Acceptable Use of Technology Policy and Procedures	HRS-09	Personnel Roles and Responsibilities
HRS-03	Clean Desk Policy and Procedures	HRS-10	Non-Disclosure Agreements
HRS-04	Remote and Home Working Policy and Procedures	HRS-11	Security Awareness Training
HRS-05	Asset returns	HRS-12	Personal and Sensitive Data Awareness and Training
HRS-06	Employment Termination	HRS-13	Compliance User Responsibility
HRS-07	Employment Agreement Process		

Identity and Access Management (IAM)

Identity and Access Management - IAM

Control ID	Control Title	Control ID	Control Title
IAM-01	Identity and Access Management Policy and Procedures	IAM-09	Segregation of Privileged Access Roles
IAM-02	Strong Password Policy and Procedures	IAM-10	Management of Privileged Access Roles
IAM-03	Identity Inventory	IAM-11	CSCs Approval for Agreed Privileged Access Roles
IAM-04	Separation of Duties	IAM-12	Safeguard Logs Integrity
IAM-05	Least Privilege	IAM-13	Uniquely Identifiable Users
IAM-06	User Access Provisioning	IAM-14	Strong Authentication
IAM-07	User Access Changes and Revocation	IAM-15	Passwords Management
IAM-08	User Access Review	IAM-16	Authorization Mechanisms

Interoperability and Portability (IPY)

Interoperability and Portability - IPY

Control ID	Control Title	Control ID	Control Title
IPY-01	Interoperability and Portability Policy and Procedures	IPY-03	Secure Interoperability and Portability Management
IPY-02	Application Interface Availability	IPY-04	Data Portability Contractual Obligations

Infrastructure and Virtualization Security (IVS)

Infrastructure and Virtualization Security - IVS

Control ID	Control Title	Control ID	Control Title
IVS-01	Infrastructure and Virtualization Security Policy and Procedures	IVS-06	Segmentation and Segregation
IVS-02	Capacity and Resource Planning	IVS-07	Migration to Cloud Environments
IVS-03	Network Security	IVS-08	Network Architecture Documentation
IVS-04	OS Hardening and Base Controls	IVS-09	Network Defense
IVS-05	Production and Non-Production Environments		

Logging and Monitoring (LOG)

Logging and Monitoring - LOG

Control ID	Control Title	Control ID	Control Title
LOG-01	Logging and Monitoring Policy and Procedures	LOG-08	Log Records
LOG-02	Audit Logs Protection	LOG-09	Log Protection
LOG-03	Security Monitoring and Alerting	LOG-10	Encryption Monitoring and Reporting
LOG-04	Audit Logs Access and Accountability	LOG-11	Transaction/Activity Logging
LOG-05	Audit Logs Monitoring and Response	LOG-12	Access Control Logs
LOG-06	Clock Synchronization	LOG-13	Failures and Anomalies Reporting
LOG-07	Logging Scope		

Security Incident Management, E-Discovery, and Cloud Forensics (SEF)

Security Incident Management, E-Discovery, and Cloud Forensics - SEF

Control ID	Control Title	Control ID	Control Title
SEF-01	Security Incident Management Policy and Procedures	SEF-05	Incident Response Metrics
SEF-02	Service Management Policy and Procedures	SEF-06	Event Triage Processes
SEF-03	Incident Response Plans	SEF-07	Security Breach Notification
SEF-04	Incident Response Testing	SEF-08	Points of Contact Maintenance

Supply Chain Management,

Transparency,and Accountability (STA)

Supply Chain Management, Transparency, and Accountability - STA

Control ID	Control Title	Control ID	Control Title
STA-01	SSRM Policy and Procedures	STA-08	Supply Chain Risk Management
STA-02	SSRM Supply Chain	STA-09	Primary Service and Contractual Agreement
STA-03	SSRM Guidance	STA-10	Supply Chain Agreement Review
STA-04	SSRM Control Ownership	STA-11	Internal Compliance Testing
STA-05	SSRM Documentation Review	STA-12	Supply Chain Service Agreement Compliance
STA-06	SSRM Control Implementation	STA-13	Supply Chain Governance Review
STA-07	Supply Chain Inventory	STA-14	Supply Chain Data Security Assessment

Threat and Vulnerability Management (TVM)

Threat and Vulnerability Management - TVM

Control ID	Control Title	Control ID	Control Title
TVM-01	Threat and Vulnerability Management Policy and Procedures	TVM-06	Penetration Testing
TVM-02	Malware Protection Policy and Procedures	TVM-07	Vulnerability Identification
TVM-03	Vulnerability Remediation Schedule	TVM-08	Vulnerability Prioritization
TVM-04	Detection Updates	TVM-09	Vulnerability Management Reporting
TVM-05	External Library Vulnerabilities	TVM-10	Vulnerability Management Metrics

Universal Endpoint Management (UEM)

Universal Endpoint Management - UEM

Control ID	Control Title	Control ID	Control Title
UEM-01	Endpoint Devices Policy and Procedures	UEM-08	Storage Encryption
UEM-02	Application and Service Approval	UEM-09	Anti-Malware Detection and Prevention
UEM-03	Compatibility	UEM-10	Software Firewall
UEM-04	Endpoint Inventory	UEM-11	Data Loss Prevention
UEM-05	Endpoint Management	UEM-12	Remote Locate
UEM-06	Automatic Lock Screen	UEM-13	Remote Wipe
UEM-07	Operating Systems	UEM-14	Third-Party Endpoint Security Posture

Certification Process

Prepare for certification to CCM version 4

Study and implement CCM version 4 integrated to ISO/IEC 27001

Prepare CAIQ V4 and post to CSA Website (STAR Level 1)

BSI audit CCM version 4 and issue certificate (CCM version 4) – **CSA STAR CERTIFICATE 2021**

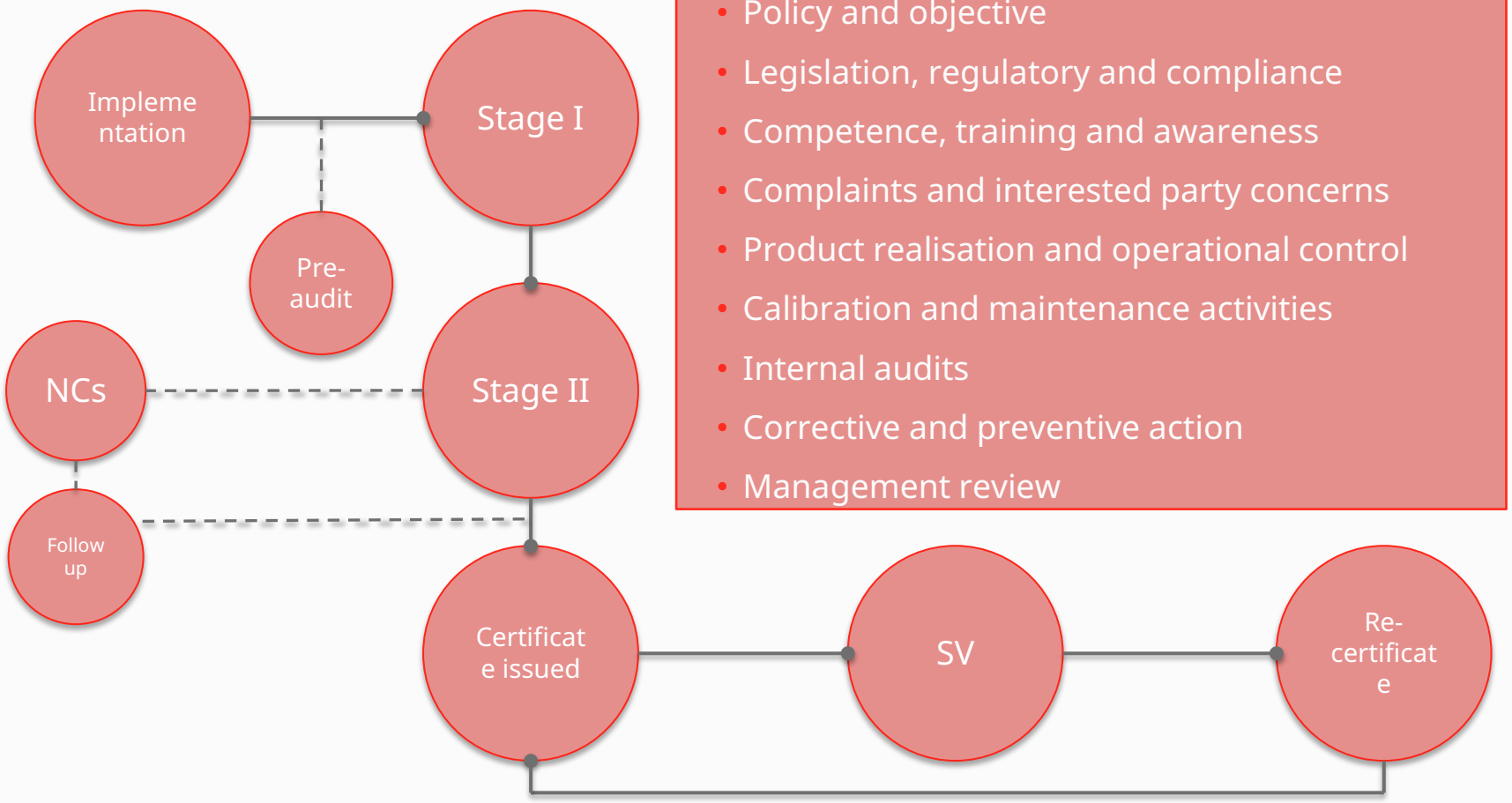
BSI Registration organization in CSA website (STAR Level 2)

Certification process

BSI - Certification process for CSA STAR Level 2

1.Ensure CSA STAR version 4 scope implemented completely and covered by ISO/IEC 27001 certification
2.Submit CSA STAR Level 1 to CSA STAR website by CAIQ sheet
3.Stage 1 Audit – Document review, confirm scope, objective and criteria
4.Stage 2 Audit – Implementation
5.Submit corrective action plan (If required)
6.Get the certificate
7.Audit as Surveillance Audit Yearly
8.3 years – Recertification Audit

Approval Process



- Manual and Procedures
- Policy and objective
- Legislation, regulatory and compliance
- Competence, training and awareness
- Complaints and interested party concerns
- Product realisation and operational control
- Calibration and maintenance activities
- Internal audits
- Corrective and preventive action
- Management review

Prepare for certification to CCM version 4

Study and implement CCM version 4 integrated to ISO/IEC 27001

Prepare CAIQ V4 and post to CSA Website (STAR Level 1)

BSI audit CCM version 4 and issue certificate (CCM version 4) – **CSA STAR CERTIFICATE 2021**

BSI Registration organization in CSA website (STAR Level 2)

Certification Process of CSA CCM Version 4

Certificate of Registration

bsi.

Certificate of Registration

CLOUD SECURITY MANAGEMENT SYSTEM - CSA STAR CERTIFICATION 2021

This is to certify that:

XXXXXXXXXXX

XXXXXXXXXXX

Holds Certificate Number: **STAR** XXXX

and operates a Cloud Security Management System which complies with the requirements of CSA STAR CERTIFICATION 2021 for the following scope:

XXXXXXXXXXXXXXXXXXX

For and on behalf of BSI:

Michael Lam, Managing Director Assurance - APAC

Original Registration Date:

Latest Revision Date:

Effective Date:

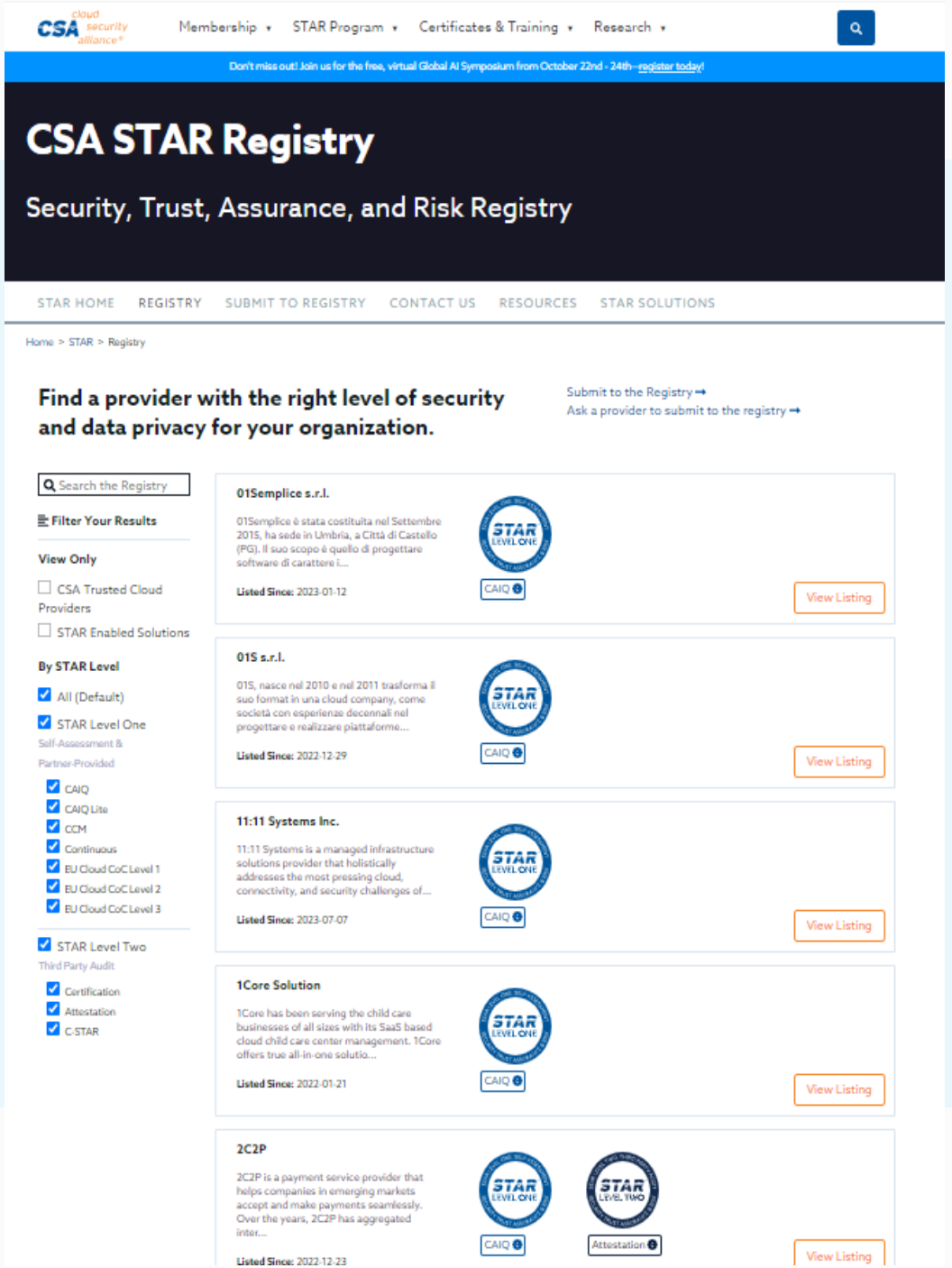
Expiry Date:

Page: 1 of 1

...making excellence a habit.™

CSA STAR Registry

https://cloudsecurityalliance.org/star/registry



“Q&A

ทบทวนและถามคำถาม

สแกน QR code เป็นเพื่อนกับเราใน Line official ของ BSI

เพื่อไม่ให้พลาดข่าวสารข้อมูลที่เป็นประโยชน์ในสายอาชีพของท่าน

- Free webinars
- Tool และบทความดีๆ