

Spillemyndigheden's Certification Programme

Change Management Programme

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**Spillemyndigheden's Certification Programme
Change Management Programme**

Table of contents

Table of contents.....	2
1 Objectives of the change management programme.....	3
1.1 Scope of this document.....	3
1.2 Version.....	3
1.3 Applicability.....	4
2 Frequency and testing organisations.....	4
2.1 Certification frequency.....	4
2.1.1 Initial certification.....	4
2.1.2 Renewed certification.....	4
2.1.3 Postponement of renewed certification.....	4
2.2 Accredited testing organisations.....	5
2.2.1 Requirements for accredited testing organisations.....	5
2.2.2 Requirements for personnel who performs the certification work.....	5
2.2.3 Requirements for personnel who supervise and attest the certification.....	5
3 Change Management Framework.....	5
3.1 Change Management Responsibility.....	6
3.1.1 Change Management responsibilities of the licence holder.....	6
3.1.2 Personnel responsible for Change Management.....	6
3.2 Change Management Planning.....	6
3.3 Configuration Management.....	7
3.3.1 Structure of the gambling system and definition of components.....	7
3.3.2 Registration of components in a component register.....	7
3.3.3 Classification of components.....	8
3.3.4 Classification of hardware components in virtual servers (cloud).....	8
3.3.4.1 <i>Private virtual server environment</i>	8
3.3.4.2 <i>Public server environment</i>	9
3.4 Recording changes in a Change Log.....	9
3.5 Configuration baseline of the Gambling System.....	9
4 Change Management Process.....	9
4.1 Justification for change.....	10
4.2 Evaluation of the proposed change.....	10
4.3 Approval of change.....	10
4.3.1 Approval of changes recommended by a supplier.....	11
4.3.2 Dismissal of changes recommended by a supplier.....	11
4.4 Implementation and verification of change.....	11
4.4.1 Changes to components classified with relevance code 3.....	11
4.4.2 Changes to components classified with relevance code 2.....	12
5 Reports from the component register and the change log.....	12
6 Prior approval of change from The Danish Gambling Authority.....	12
6.1 Random Number Generator.....	12
6.2 New games and changes in the existing offer of games.....	12

1 Objectives of the change management programme

The change management programme ensures that all changes to the gambling system are conducted to this set of standards, hereby seeking an adequate quality for the implementation of changes. The programme ensures transparency in relation to changes to the gambling system and the decision process behind those changes.

1.1 Scope of this document

This document contains the requirements specifying how testing organisations obtain accreditation for conducting audit and certification of the gambling system, business processes and business systems of the licence holder as well as instructions on how to conduct the certification. The requirements concerning accreditation of the testing organisation and certification of the licence holder can be found in section 2: "Frequency and testing organisations".

The licence holder shall have a number of basic functions and procedures in place as the foundation for its change management programme. These functions and procedures are described in section 3 "Change Management Framework".

All changes to the gambling system shall be described, evaluated and approved before being implemented into the gambling system. This process is described in section 4 "Change Management Process".

The licence holder shall be capable of creating a number of reports concerning the gambling system and these are described in section 5 "Reports from the component register and the change log".

In certain situations the Danish Gambling Authority must be notified about a change or in some cases have to approve the change before implementation. These situations are described in section 6 "Prior approval of change from The Danish Gambling Authority".

1.2 Version

The Danish Gambling Authority continuously revises the certification programme. The latest version and the version history are accessible at The Danish Gambling Authority's website.

Date	Version	Description
2014.07.04	1.0	A new document structure than the previous version 1.3 alongside with a range of updates in different areas. A new version 1.0 is therefore published. It is the intention to follow normal versioning for future changes.
2015.12.21	1.1	Changes completed to implement requirements for lotteries in the certification programme.
2020.01.01	1.2	Spillemyndigheden has removed the requirement saying the ATO's accreditation must refer to a specific version cf. section 2.2.
2023.01.01	2.0	Update of requirements for accredited testing organisations and staff. Requirement of quarterly reports have been removed. Detailed description of situations, where the DGA needs to give a prior approval of new and changed games have been removed. Furthermore, general adjustments and specifications have been made.

When a new version of the certification programme is released, The Danish Gambling Authority will, if necessary, publish guidelines for a transition period and validity of already completed certifications.

Spillemyndigheden's Certification Programme Change Management Programme

It must be emphasised that only the Danish version is legally binding. The English version holds the status of guidance only.

1.3 Applicability

The Change Management Programme is applicable for offering of:

- Online betting
- Land based betting
- Online casino
- Lotteries (§ 6 in the gambling act), section 6.2 in this document is not applicable for lotteries

2 Frequency and testing organisations

2.1 Certification frequency

The licence holder is responsible to ensure to be certified in accordance with the requirements in this document with an interval of maximum of 12 months.

2.1.1 Initial certification

The licence holder must be certified before a licence to offer games can be issued, unless the Danish Gambling Authority has informed otherwise. See section 2.1.2 in the general requirements for further information.

2.1.2 Renewed certification

The licence holder must, as a rule, have completed a new certification within 12 months of the latest certification. The standard report must reflect, when the certification has been renewed.

The standard report, which documents the renewed certification, must be in the Danish Gambling Authority's possession no later than two months after the certification was done.

2.1.3 Postponement of renewed certification

The licence holder can choose to postpone the certification up to two months from the time where a new certification should have been completed. The new certification must be finalised no later than 14 months after the latest certification and the standard report must be submitted to the Danish Gambling Authority within the same deadline.

The Danish Gambling Authority must be notified before the certification is postponed.

The deadline for renewal of certification is shortened with the equally amount of time the former 12-month deadline has been postponed. Meaning that if you for instance make use of the maximum two months postponement, then the next certification is due 10 months later. The time for the next certification shall be reflected in the standard report.

The option to postpone the certification only applies to the licence holder. This means that the option does not apply to any suppliers the licence holder may have.

2.2 Accredited testing organisations

To ensure that the necessary qualifications are in place during the certification the testing organisation and their staff shall fulfil the requirements in this section.

2.2.1 Requirements for accredited testing organisations

Certification in accordance with the change management programme shall be conducted as an accredited certification by a certification body, who is accredited after ISO/IEC 17021-1 or ISO/IEC 17065 for certification referring to Spillemyndighedens Certification Programme SCP.06.00.DK by DANAK (the Danish Accreditation Fund) or a similar accreditation body, who is co-signer of EA's (European co-operation for Accreditation) multilateral agreement with regard to certification of management systems or by certification bodies outside EA's jurisdiction, who is co-signer of the relevant multilateral agreement on reciprocal recognition under IAF (International Accreditation Forum).

Documentation for fulfilment of the requirements shall be enclosed with the certification. Alternatively, a link to the accreditation can be provided in the certification report.

2.2.2 Requirements for personnel who performs the certification work

The certification work shall be carried out by staff with sufficient qualifications cf. section 6 in ISO/IEC 17021-1 or section 6 in ISO/IEC 17065, which means that the accredited testing organisation shall hire sufficiently qualified, competent, and experienced personnel.

2.2.3 Requirements for personnel who supervise and attest the certification

Work done in relation to the certification shall be supervised and the certification report shall be attested by one or more persons who warrant(s) that the work has been carried out to professional standards. These persons shall meet the following requirements:

- a) have a relevant educational background or in other ways prove relevant qualifications,
- b) have at least five years of professional experience in inspecting gambling systems and
- c) be certified as:
 - International Information Systems Security Certification Consortium (ISC)2 Certified Information Systems Security Professional (CISSP),
 - Information Systems Audit and Control Association (ISACA) Certified Information Systems Auditor (CISA).

See section 2.2 in the general requirements for further information.

3 Change Management Framework

This general framework for managing changes to the gambling system sets out the necessary foundation needed for the implementation of a change management programme. It requires the licence holder to:

- delegate responsibilities and authorities in relation to change management,
- create a formal change plan defining the structure for change management,
- identify and classify the components of the gambling system for the configuration management,
- record changes in a change log, and

**Spillemyndigheden's Certification Programme
Change Management Programme**

- determine a configuration baseline for the gambling system in its entirety.

When classifying components, it may be relevant to consider the differences between the games and the game types as well as the different risks involved.

3.1 Change Management Responsibility

3.1.1 Change Management responsibilities of the licence holder

The licence holder is responsible for changes in its gambling system irrespective of whether such changes have been carried out by the licence holder or a third party on behalf of the licence holder.

The licence holder shall clarify and define responsibilities and authorities with regards to the implementation and approval of the change process. If the gambling system changes are managed by one of the licence holder's suppliers, the licence holder shall ensure that the supplier carries out equal procedures and that these procedures comply with the requirements of this document.

3.1.2 Personnel responsible for Change Management

The licence holder shall appoint one or more people among its staff to take overall responsibility for system changes. The responsible personnel may be organised as a committee.

The responsible personnel shall possess sufficient proficiency and experience in change management and hold the necessary authority within the licence holder's organisation to make decisions with regards to change management.

The responsible personnel shall involve other relevant staff members at the licence holder and/or at the relevant supplier(s) in the decision process in order to ensure changes of high quality.

Prior to the approval of a system change the responsible personnel shall confirm that:

- the proposed system change is consistent with Spillemyndigheden's Certification Programme,
- the proposed system change is necessary,
- the proposed system change has been documented and categorised,
- the consequences of implementing the change does not compromise the integrity of the gambling system, and
- the process for the planned actions when implementing the system change in documentation, hardware and/or software is consistent with section 4 of this document.

This, along with who has been involved in the decision-making process, shall be recorded in the change log cf. section 3.4.

3.2 Change Management Planning

The change management of the licence holder shall be documented in a change management plan which sets out the overall framework for managing system changes.

The change management plan of the licence holder shall:

- be documented,

Spillemyndigheden's Certification Programme Change Management Programme

- be approved by senior management,
- be subject to sufficient internal control,
- identify the configuration management procedure to be used cf. section 3.3,
- describe the responsibilities and authorities of the personnel in relation to changes to the gambling system and its components as well as ensure that the lifecycle of components is described,
- integrate with the change management plans any suppliers,
- establish the delegation of responsibilities between licence holder and any supplier, and
- refer to relevant procedures of the licence holder and any supplier whenever possible.

3.3 Configuration Management

The licence holder shall use a degree of configuration management which creates an overview of the gambling system by identifying the individual components. When the components have been registered and classified in the component register cf. section 3.3.2 the configuration baseline is created cf. section 3.5 which ensures the possibility of identifying changes to the gambling system in future certifications.

The configuration management set out in this document is meant to supplement the existing configuration management used by the licence holder.

If the licence holder is not subjecting the gambling system to any configuration management then this document is to be considered the minimum requirements for configuration management.

3.3.1 Structure of the gambling system and definition of components

The structure of the gambling system is comprised of the defined hardware and software components and the inter-relationships and -dependencies of the components.

The components shall be defined in the component register cf. section 3.3.2 based on whether their functional and physical characteristics can be managed separately.

The definition shall be based on:

- regulatory requirements,
- criticality in terms of risks to confidentiality, integrity, availability and accountability cf. section 3.3.3,
- new or modified technology, design or development, and
- interfaces with other components.

The objective of defining the components is to optimise the ability to control the development process of the gambling system. The definition of components shall be initiated as early as possible in the component's lifecycle and be reviewed on a continuous basis during the development of the component.

3.3.2 Registration of components in a component register

The licence holder and any suppliers shall register all defined components in a component register.

The licence holder and their suppliers are free to set the level of detail in the component register. If the level of detail is very low – e.g. if the gambling system is the only component – then any change to this component would require a very high degree of management and control. A high level of detail would

Spillemyndigheden's Certification Programme Change Management Programme

make it possible to scale the degree of management and control according to the significance of the individual component's role in the gambling system.

The following information shall be registered on each component:

- the definition of the component,
- a unique identification number,
- version number,
- identifying characteristics,
- the owner responsible for changes to the component,
- classification in relation to confidentiality, integrity, availability and accountability cf. section 3.3.3,
- Checksum/Hash value for components classified as (substantial relevance), cf. section 3.3.3 and
- the geographic location if the component is a hardware component.

This information shall be the foundation on which the accredited testing organisation can inspect whether the component has changed compared to the configuration baseline cf. section 3.5.

3.3.3 Classification of components

All defined components shall be classified against the following four criteria:

- Confidentiality; confidential information concerning the customer (e.g. identification and transaction information).
- Integrity; the integrity of the gambling system, it's functionality and the information stored in the gambling system.
- Availability; the availability of information concerning the customer.
- Accountability; user activity (including customers, personnel and third parties) in relation to the component.

Each component shall be assigned a relevance code on the scale below based on the component's role in achieving or ensuring each of the above criteria:

- 1; no relevance (the component can have no negative impact on the criteria),
- 2; some relevance (the component can have an impact on the criteria), and
- 3; substantial relevance (the criteria is related to or dependant on the component).

The highest relevance code of the four criteria determines the classification of the component.

3.3.4 Classification of hardware components in virtual servers (cloud)

If the licence holder is using a virtual server environment, this may affect the classification as described in section 3.3.3 of these hardware components.

3.3.4.1 Private virtual server environment

In situations where the licence holder is using a private server environment to support the gambling system, the supporting hardware shall have adequate redundancy and capacity, to ensure continuous performance of the system despite malfunction of individual hardware components, thus ensuring continuous

Spillemyndigheden's Certification Programme Change Management Programme

and uninterrupted performance of the gambling system until the error has been rectified. In this situation it is allowed to classify the hardware components with a lower relevance code, cf. section 3.3.3.

In situations where the combined physical hardware, supporting the virtualisation layer, does not have adequate redundancy and capacity to mitigate malfunction of individual hardware components, and thus can-not ensure continuous and uninterrupted performance of the gambling system until the error has been rectified, then the individual hardware components shall be classified with a higher relevance code, cf. section 3.3.3.

3.3.4.2 Public server environment

In situations where a supplier is supporting the licence holder with a virtual server environment (cloud), hardware components in the server environment shall not be classified according to section 3.3.3, when the supplier is fulfilling the following conditions:

- The supplier must not be a part of the licence holder's concern or in any way connected to the licence holder's business
- Is certified according to ISO/IEC 27001
- The hardware supporting the virtual server environment, shall have adequate redundancy and capacity, to ensure continuous performance of the system despite malfunction of individual hardware components, thus ensuring continuous and uninterrupted performance of the gambling system until the error has been rectified.

3.4 Recording changes in a Change Log

All changes to the gambling system shall be recorded and dated in a change log. The change log shall be the foundation on which the accredited testing organisation can inspect the changes done to each specific component compared to the configuration baseline cf. section 3.5.

3.5 Configuration baseline of the Gambling System

The configuration baseline is established during the initial certification of the licence holder as the certified gambling system in its entirety.

The configuration baseline enables the accredited testing organisation to inspect all changes to the components in such a manner that upon the yearly re-certification a complete audit trail exists back to the initial configuration baseline.

As part of the yearly certification a new configuration baseline is established, and this will serve as the baseline for the changes during the following year.

4 Change Management Process

All system changes shall be controlled. The degree of control depends on the impact the change is expected to have on the gambling system.

The change management process shall be documented in the change log cf. section 3.4 and the documentation shall include:

Spillemyndigheden's Certification Programme Change Management Programme

- a description of the change,
- a classification of the change in terms of complexity, resources and scheduling,
- a justification for the change cf. section 4.1,
- an evaluation of the proposed change cf. section 4.2,
- a description of how the change shall be approved cf. section 4.3, and
- a description of how the change shall be implemented and verified cf. section 4.4.

4.1 Justification for change

Prior to the formal approval of a change cf. section 3.1.2 the change proposal shall be substantiated and documented in the change log cf. section 3.4.

The change proposal shall include the following information:

- the component(s) and related documentation to be changed including the unique identification number, version number and status,
- a description of the proposed change,
- a listing of other components and related documentation that may be affected by the change,
- the personnel or supplier composing the change proposal as well as the date of the proposal,
- the reason for the change, and
- the category of the change.

The status of the change processing, the related decisions and dispositions shall be documented on an on-going basis.

4.2 Evaluation of the proposed change

The change proposal shall be evaluated, and this shall be documented in the change log cf. section 3.4. The evaluation shall be conducted in accordance with the purpose of the Gambling Act and associated executive orders. The risk assessment shall be based "ISO/IEC 31010 Risk management - Risk assessment techniques".

The evaluation of the proposed change must include:

- the expected effect of the change,
- a description of the risk associated with the change,
- a description of the change's effect on the licence holder's regulatory compliance, and
- the impact of the change on the gambling system's confidentiality, integrity, availability and accountability cf. section 3.3.3.

4.3 Approval of change

A process shall be established that ensures all change proposals and associated evaluations of proposed changes, are presented for formal approval cf. section 3.1.2 and the final approval or dismissal of the change can take place.

All decisions on changes including relevant considerations shall be recorded in the change log cf. section 3.4.

Spillemyndigheden's Certification Programme Change Management Programme

4.3.1 Approval of changes recommended by a supplier

When a change in the gambling system of the licence holder is initiated on the basis of a recommendation from a supplier, the licence holder's approval of the change can be based on the supplier's change justification cf. section 4.1 and evaluation of proposed changes cf. section 4.2. The licence holder shall still make a separate evaluation of proposed changes describing how the change will impact the entire gambling system.

The time between the supplier recommendation and the implementation shall be justified in the change log cf. section 3.4. Documentation for the implementation of the supplier's recommendation shall also be recorded in the change log.

4.3.2 Dismissal of changes recommended by a supplier

If a licence holder dismisses the implementation of a change recommended by a supplier it shall be justified in the change log cf. section 3.4.

The accredited testing organisation shall attest on each individual justification and dismissal of the supplier's recommendations.

4.4 Implementation and verification of change

This section applies to changes to components classified with relevance code 2 or 3 cf. section 3.3.3. Components classified with relevance code 1 have no relevance in relation to the criteria in section 3.3.3 and changes to these do not need approval from the accredited testing organisation.

After the implementation of a change the compliance with the approved change shall be verified. The verification shall be recorded in the change log cf. section 3.4.

4.4.1 Changes to components classified with relevance code 3

The accredited testing organisation shall assess and approve the change evaluation cf. section 4.2 of the licence holder of all changes to the components of the gambling system classified with relevance code 3 ("significant relevance") cf. section 3.3.3.

The accredited testing organisation shall certify all changes during or in direct continuation of the implementation.

The accredited testing organisation can allow changes to occur without certification where the licence holder has an internal function dedicated to undertaking quality assurance of change management. This function shall be manned with appropriately skilled staff as well as being organisationally separated from the function implementing system changes.

If the certification is postponed the accredited testing organisation shall assess, approve and certify these changes every three months.

The option to postpone certification to the interval of three months is only available to licence holders. The option to postpone certification is not available to suppliers without an individual licence to offer gambling in Denmark.

Spillemyndigheden's Certification Programme Change Management Programme

4.4.2 Changes to components classified with relevance code 2

The accredited testing organisation shall assess and approve the change evaluation cf. section 4.2 of the licence holder of all changes to the components of the gambling system classified with relevance code 2 ("some relevance") cf. section 3.3.3 and subject to Spillemyndigheden's testing standards SCP.01.xx.EN.

The accredited testing organisation shall certify these changes every three months.

The accredited testing organisation shall assess and approve the change evaluation cf. section 4.2 of the licence holder of all changes to the components of the gambling system classified with relevance code 2 ("some relevance") cf. section 3.3.3 and subject to Spillemyndigheden's inspection standards SCP.02.xx.EN.

The accredited testing organisation shall certify these changes every twelve months.

5 Reports from the component register and the change log

Upon request from The Danish Gambling Authority or the accredited testing organisation the licence holder shall be able to generate the following reports based on the information in the component register cf. section 3.3.2 and the change log cf. section 3.4:

- a report of all components including the registered information from the component register,
- a report of the change history of an individual component,
- a report of the geographical location of all hardware components, and
- a report of all verified changes cf. section 4.4. It shall be possible to generate this report for a limited period of time e.g. 3 months, 6 months, 12 months etc.

6 Prior approval of change from The Danish Gambling Authority

The license holder is obligated to inform the Danish Gambling Authority instantly when a suspicion regarding an error arises or an error is identified at the license holder and/or at the license holder's associate for example a gaming provider. This includes the situation, where an error occurs on a game, which the license holder provide; then the Danish Gambling Authority must be informed.

The license holder is obligated to inform the Danish Gambling Authority, when significant changes happen to the prerequisites upon which the license was granted. In some cases the Danish Gambling Authority must approve the change, before it can be implemented.

6.1 Random Number Generator

The implementation of a new Random Number Generator (RNG) and changes to an existing RNG shall be notified with The Danish Gambling Authority five working days before the implementation or change is carried out.

6.2 New games and changes in the existing offer of games

When implementing new games or making changes to the existing games, it can be necessary for the Danish Gambling Authority to approve the new games or the changes to the existing ones. This among other to insure, that the reporting of data from those games are done correctly.

**Spillemyndigheden's Certification Programme
Change Management Programme**

Information on when the license holder must inform the Danish Gambling Authority and seek approval can be found in "Technical requirements – online casino and betting" on The Danish Gambling Authority's website.