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## GLI-16 Revision History

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### Revision History Outline

Date Released: July 31, 2024 Version 3.0, *Final*  
Date Released: September 6, 2011 Version 2.1, *Final*  
Date Released: April 20, 2007 Version 2.0, *Final*  
Date Released: June 30, 2006 Version 1.3, *Released for Comment*  
Date Released: February 7, 2002 Version 1.2, *Final*  
Date Released: December 7, 2001 Version 1.1, *Draft for Comment*  
Date Created: August 27, 2001 Version 1.0, *Draft for Comment*

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## Revision 3.0

- Re-titled document. Updated layout and formatting of the document to provide a modern feel to the standard.
- Reorganized and restructured document into more consumable chapters and sections, providing better distinction among the major technical areas of Cashless Systems, Cashless Devices, and Player Accounts.
- Incorporated requirements based upon industry best practices.
- Generalized applicability of technical standard beyond gaming devices such that this standard applies to systems used in operations of other forms of Cashless Devices (e.g. gaming devices, electronic table games, electronic wager stations, live game management components, kiosks, etc.) used at all types of gaming venues (casinos, racetracks, card rooms, bingo halls, gaming halls, establishments used for video lottery and other forms of distributed gaming, etc.).
- Revised definition for Cashless Systems to cover cashless transactions which do not involve player accounts, but rather electronic payment accounts. (S 1.5.1)
- Added reference to the GLI Gaming Security Framework (GLI-GSF) which will house the technical security controls and testing requirements for these systems. Also removed requirements which will be covered in the GLI-GSF.
- Incorporated limited alignment with widely-accepted jurisdictional and international standards.
- Added various content to Cashless System Requirements based on alignment with other GLI Standards and current best practices, including but not limited to, control program verification, common critical components and functions, communications, information to be maintained. (chapter 2)
- Added reference to the gaming system requirements in GLI-13 as those rules would also apply for Cashless Systems. (S 2.1.1)
- Added reference to the interface element requirements in GLI-13 for cases where Cashless Devices use them. (S 2.2.2)
- Added logging requirements specifying what needs to be recorded by the system consistent with other GLI Standards and other markets. (S 2.3)
- Made updates to some report requirements to add flexibility within generation and specificity regarding some of the report content. (S 2.4)

- Reorganized Cashless Device Requirements into its own chapter (chapter 3).
- Incorporated and revised wording from GLI-11 to provide coverage for all forms of Cashless Devices (S 3.3, 3.5)
- Updated to expand access to means of performing player identification at the device level (S 3.4.1)
- Revised to remove printed confirmation requirements (S 3.4.2)
- Added new requirements to support game play transactions where the player account is accessed for every transaction, as opposed to “uploading” and “downloading” credits. (S 3.4.3)
- Added requirements for electronic funds transfer transactions at a Cashless Device (S 3.4.5)
- Updated to add clarification about the Cashless Device detecting this error trying to communicate with the system (S 3.4.7)
- Expanded log to require 35 transactions to be recorded consistent with other markets (S 3.5.3)
- Reorganized Player Account Requirements into its own chapter (chapter 4).
- Established verified player account registration and verification requirements for cases where the Cashless System directly performs these functions. (S 4.2.1, 4.2.2, 4.2.3, 4.2.4)
- Updated to include additional means to access to player accounts at the system level, including the means to reset player authentication credentials and access lockout (S 4.2.6, 4.2.7, 4.2.8, 4.4.1)
- Enhanced to provide further system-side requirements regarding financial transactions for the player account (S 4.4.2)
- Added requirements for a transaction log or account statement (S 4.4.3)
- Added new requirements for unverified player account balance limits should the regulatory body allow for such accounts (S 4.3.2)
- Established requirements to support cases where the cashless system can directly manage and implement limitations and/or exclusions (S 4.5)
- Reorganized Cashless Device Requirements into its own chapter (chapter 3).

- Added Glossary of Key Terms.
- Added various notes to improve clarity of requirements, and to better document known conditions or restrictions.
- Made various grammatical changes throughout the document to improve clarity and readability.

## Revision 2.1

### Notable Changes

- Removed chapter for submission requirements and modified outline numbering to reflect correct chapter
- Made Grammar, spelling and format corrections
- **2.1.4** Updated definition for EFT IN to match meter definition in GLI-11

## Revision 2.0

- **Rev 1.3** Final was renamed to **Rev2.0** Final for document control purpose.

## Revision 1.3

- 1.1.1 Removed the disclaimer indicating that SmartCards are not authorized for use and are not addressed within this standard. See the new 3.2.7 rule.
- 3.1.4 Clarified meter requirements pertain to EGD and System. Added meters should be labeled in accordance to their function, they should be stored in units equal to the denom or dollars and cents and specified the required meters.
- 3.2.7 New section added which permits the use of Smart Cards provided the system validates the amount and player account information. Noted that Smart Card technology implementation will be evaluated on a case-by-case basis.
- 3.2.8 Added a new rule requiring that the game or the interface element display to the player information stating that cashless transactions are unavailable when communications between the host and the client are lost.

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- 3.2.9 Added a rule requiring encryption on all communication between the interface element and the backend system.
  - 3.4.1 (c) Changed requirements regarding liability report.
  - 3.6 Software Verification – this section was added to require that each component used in the Cashless System, that would affect the integrity of the system, have the ability to be verified by a third party verification tool.

## **Revision 1.2**

- General grammatical changes.
- 1.3.4 Changed the reference to ‘regulations’ to ‘standards’
- 2.3.2(g) Moved from 2.4.1(d) to here since this rule requires a connectivity manual since this is actually a Hardware requirement.
- 2.4.1(d) Moved to 2.3.2. This rule is now RESERVED.
- 2.6.2 Removed the reference to the firmware that is ‘subsequently placed in the field’ since this is a submission requirement.
- 3.1.1 Clarified that this section applies to gaming devices of a cashless environment.
- 3.1.3 Added clarification so the gaming device has the ability to recall the last 25 transactions.
- 3.1.3(d) Added to the requirement to provide audit trails for cashless transactions that included the players account to be either an account number or a unique transaction number to authenticate.
- 3.1.4(b) Removed the requirement that the meters be currency based
- 3.1.4(b)(i) Removed the reference to currency based because of the 3.1.4(b) change.
- 3.1.4(b)(ii) Removed the reference to currency based because of the 3.1.4(b) change.
- 3.1.4 NOTE Removed because of the 3.1.4(b) change.
- 3.1.5(d) Changed this section (transaction confirmation) to accommodate 3.1.3(d)
- 3.1.6(b)(i) Removed this section because it's now combined with 3.1.6(b)

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- 3.1.6 Note removed this section because it's now combined with 3.1.6(b)
  - 3.1.8 Modified the rule to specify on gaming machines an indication for non-participation in addition to the previous requirement for games that are participating.
  - 3.2.4 Changed the security levels requirement to refer to the number of users since there will most likely be more than one.
  - 3.2.6 Changed the diagnostic tests on a gaming device to report the activity to the system.
  - 3.3.1 Central system audit trails was changed to be able to provide the 'pending' transactions in addition to the 'completed' transactions.
  - 3.4.1(b) Removed the requirement for the system to produce an employee cashless account summary since this would be an Internal Control, not a technical standard.
  - 3.5.1 Added an example to the security for the transactions to clarify a PIN or other means (ie. Fingerprint recognition). Also removed reference to 'currency based' because of the change to 3.1.4(b)

## **Revision 1.1**

- \*Several changes were made based on the TAM Conference held in Golden, Colorado on November 8 & 9 of 2001, where many regulators attended and supplied their comments.
- 1.1.1 Added further clarification on the definition of Cashless Systems.
- 1.3.4 Excluded Smart Card technology as being covered by this standard.
- 2.3.3 Removed reference to Section 6.2 since it doesn't exist.
- 3.1.1 Clarified that the Gaming Device/Card Reader requirements apply to those elements that the player interfaces directly.
- 3.1.2 Replaced the word 'had' with 'allows' to better clarify.
- 3.1.3 Clarified the last 25 transactions 'transmitted' to the host system. In addition, added the ability to have a 100-event log if a gaming device has promotional or host bonusing features enabled simultaneously with cashless features.
- 3.1.3(d) Added 'The player's account number' to be included with the transaction log.

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- 3.1.4(b) Changed the rule to require the accounting meters to be currency based to avoid confusion.
  - 3.1.4 NOTE This was removed because of the above change (3.1.4(b)). Added a new note that requires 'all accounting meters as mandated in GLI-11, as well as credit meter displays at the device, must be maintained in units. All currency based meters must be at least 10 digits, 8 digits dedicated to dollar value, and 2 digits dedicated to pennies.'
  - 3.1.5 Transaction report was removed and replaced with Transaction Confirmation requirement that may use a display, a receipt of any method of notification at game centric level.
  - 3.1.6 Restructured this area to include two subsections (host system and gaming device error conditions), Also, throughout this rule, removed the requirement to display to the patron for a transaction failure since this is covered in 3.1.5
  - 3.17 Was "Diagnostic Tests on a Cashless Gaming Device" which was moved to 3.2.6. 3.17 is now the 'Full Transfer of all Transactions' rule.
  - 3.2.1 Added requirement for the game and host to be secure enough so failure events can be identified and logged.
  - 3.2.2 Added clarification that would require security of the patron information to be guaranteed at all times.
  - 3.2.6 Added 'Diagnostic Tests on a Cashless Gaming Device' rule here. Was rule 3.17.
  - 3.3.1(a) removed requirement that referenced GLI-11 device standards for the system log requirements. This was an error.
  - 3.5.1 Indicated 'Currency Based' throughout this rule in conjunction with 3.1.4(b) change, above.
  - 3.5.2 Same as 3.5.1, above.
  - 3.5.6 Removed the requirement to display the transfer amount in the appropriate format since it will only be in terms of currency now with the 3.1.4(b) rule change.