**Player Account Management – Game Vertical Interface – Technical Review**

**Background for requesting the technical review**

Danske Spil’s strategy towards presenting a market winning product palette is to implement and align leading systems from different product categories. So far six gaming systems from different vendors have been implemented at Danske Spil to support that strategy.

Danske Spil maintains a range of core systems to which the gaming systems must integrate. Those core systems performs tasks such as Customer Relationship Management, Business Intelligence, reporting to the Gambling Authority and Player Account Management (PAM).

The Player Account Management system, currently delivered by BetWare, is up for tendering due to EU regulations. The prequalification process has been started.

Danske Spil has observed that the current integrations between gaming systems and Player Account Management, although somewhat different for each system, have much in common. In order to support the strategy, minimize time-to-market and to drive down costs, the effort of integrating gaming systems with the Player Account Management needs to be more efficient.

In order to streamline the integration of future gaming systems with the future Player Account Management, Danske Spil have developed a specification of a common standardized interface.

The interfaces will be an open standard that can be used by anyone to integrate gaming solutions.

**Scope of the standardized interface**

The basis is a standardization of all communication between the gaming systems and the Player Account Management solution, e.g. wallet and player profile data exchange.

Some parts of the communication are however not controlled in this interface. The SSO will be handled separately, but tokens are supported.

Other gaming vertical functionality which is not covered by this interface is e.g.: Front-end integrations, back-end reporting (BI, SAFE etc.), tracking data.

Complex bonus calculations is not expected to a part of the PAM solution and bonus calculations should be done in the gaming verticals, possibly using a data feed from PAM through this interface.

**Process**

The request for technical review has been sent to a wide range of vendors. The vendors have been selected to cover all types of games to make sure the interface is as complete as possible.

Furthermore all Danske Spil game providers and known potential PAM providers has been included in this technical dialog.

The updated interface specification will be announced as part of the tender material for the PAM tender.

Implementation of the interface has started and will be completed for current solutions before the tender process is completed.

The interfaces will be an open standard that can be used by anyone to integrate gaming solutions.

Below is a summary of the most significant changes to the interface specification based on the technical dialog:

* AMQP introduced as a requirement for push messages
* URL to player resource identified by playCardNumber changed to matrix parameter as in "/gvi/v1/players;cardnumber=1235565/accounts".
* Authentication tokens in header changed to one combined token containing both provider and player authentication.
* Auth field in player removed so batch updates with player authentication will not be possible.
* Transaction createdTime changed to externalCreatedTime to be provided by provider at creation time.
* Transaction confirmedTime changed to externalConfirmedTime to be provided by provider when confirming a reserved amount.
* Optional externalCreatedTime added to wager and wager-set.
* Example added: Add wager to wager-set
* Example added: Update a wager that did not win anything