

Gemini Update

Richard Griffiths – 9th January 2008

Agenda

- Recent Outages/Incidents
- Gemini Oracle Software Upgrades Incident Update
- Gemini Summer 2008 Release

Recent Outages / Incidents

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| <p>11th November</p> | <p>Batch Jobs not running in Gemini - Linepack data provision and Auctions processing impacted (05:15 to 10:00)</p> <p>The batch container for Gemini failed to restart correctly following maintenance period. Manual actions to restart were undertaken,</p> <p>Issue tracked to problems with Service Guard script, which have now been addressed.</p> |
| <p>12th November</p> | <p>Gemini access unavailable(10:30 to 14:30)</p> <p>Analysis identified that the user authentication process was failing, preventing all connection attempts. Administration accounts were reset and a full service restart performed.</p> <p>Issue tracked to locked session on admin accounts.</p> |

Recent Outages / Incidents

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| <p>22nd November</p> | <p>API requests unavailable (05:15 to 07:00)</p> <p>Analysis identified that the online container had failed to start correctly during the maintenance window. A manual restart was undertaken.</p> <p>Issue tracked to script issue on CRON job used to restore container.</p> |
| <p>17th/18th December</p> | <p>Gemini access unavailable (22:30 to 07:15)</p> <p>Analysis identified that Shippers attempting to logon to the primary Gemini URL https://gemini-ix-prod-citrix.transco.co.uk/ were unable to access the service. Shippers were informed to use the secondary (DR) URL connection https://gemini-ix-prod-citrix-dr.transco.co.uk/</p> <p>Issue tracked to a hardware failure on a core network switch which was replaced. Throughout this incident online access to Gemini would have been available to Shippers via the DR route.</p> |

Recent Outages / Incidents

20th December

Gemini online access connection issues (08:45 to 11:45)

A number of Shippers highlighted problems with connecting to Gemini. Detailed analysis was undertaken, with no errors identified.

All Shippers were contacted for further details but all were at that stage able to connect. Further review is underway but no root cause has yet been identified.

Gemini Oracle Software Upgrades Incident - Progress

- Two primary causes of problems
 - Application Code Construct – associated with high volume concurrent usage of same transaction type – Fixed on 23/12
 - API Error – associated with saturation usage displaying a “memory leakage”, builds up over time, eventually causing a loss of service. Indications being that this is an error is the 3rd party software.
- 10 minor application Defects have also been identified – All minor and have now been resolved.

Gemini Oracle Software Upgrades Incident – Lessons Learnt

- User Acceptance Testing
 - All functional areas to be tested discretely
 - Concurrent testing of specific transaction to be target of future testing
 - Consideration being given to additional “field” testing possible to replicate full load testing
- Operational Acceptance Testing
 - Volume and Stress testing were completed, however more reliability/soak testing over a prolonged period may have identified problems

Gemini Oracle Software Upgrades Incident – Lessons Learnt

- Communications during incident
 - Agreed single point of communication to the community
- Scale of change “undersold”
 - Proof of concept had considered upgrade as a complex change but low risk
- Industry Engagement
 - Low take-up of option for Shipper trials testing phase

Gemini Summer 2008 Release - Overview

In response to a request from National Grid Transmission a number of changes have been combined to form one release with a planned implementation date of 17th August 2008.

- The following Change Orders are included within the scope of the release:
 - COR751 (Introduction of New Interconnector Functionality)
 - COR897 (New Entry Capacity Licence Obligations introduced as part of TPCR).
 - COR937 (Transportation Owner (TO) Commodity Charge Rebate & Retrospective Negative TO Commodity Charge)
 - COR940 (Amending the Scaleback Calculation within Gemini and the Restoration of Interruptible Capacity Rights Post Scaleback)

Gemini Summer 2008 Release - Planned Implementation Date

The planned implementation date of 17th August 2008 is being driven by the New Entry Capacity Licence Obligations change which needs to be implemented in time for the QSEC auction currently scheduled for September 2008. This implementation date is outside of Mod 10 timescales, both in terms of the implementation date and the notice period.

Approval:

Representation will be made at the February 2008 UK Link Committee meeting with approval being sought in March 2008.

Broader Communication:

Updates will be provided to the UK Link Committee, Gas Ops Forum and Billing Ops Forum as appropriate.

Gemini Summer 2008 Release – COR751

Introduction of New Interconnector Functionality

Requirements:

- Provide enduring capability to set up and modify Interconnectors and direction.
- Set up the BBL NL-GB pipeline as a bi-directional Interconnector.

Impacts:

Potential impacts on meter set up details. There may be downstream impacts on the relevant invoices although it is anticipated that these will be data related and should not impact the file format, however, this cannot be confirmed until the analysis phase is complete (prior to the February UK Link Committee meeting).

Gemini Summer 2008 Release – COR897 New Entry Capacity Licence Obligations

Requirements:

- Change to the current Licence Obligation for the Entry Capacity regime
 - Introduction of new Quantity Holders
 - Introduction of Permanent Baseline Capacity Substitution

Impacts:

Minor changes to data that is displayed on screens accessible to external users.

Dependencies:

Entry Capacity Licence Baseline Review still ongoing but it is understood that the scope of this review relates to the baseline numbers. However, should the scope of the review change this may become a dependency for the project.

Gemini Summer 2008 Release – COR940 Amending the Scaleback Calculation ...

Requirements:

- Ability to restore those Interruptible Capacity rights that have been scaled back as a result of a constraint.
- Investigate potential for introducing a new Discretionary Interruptible (Day Ahead/Within Day Capacity Auction) to aid the easing of any capacity constraints.

Impacts:

- Restoration of Interruptible Capacity Rights following scale back facilitating greater release of Interruptible Capacity on D-1 & D.
- The potential introduction of a new Interruptible within day Auction.
- The detailed impacts will not be fully understood until the analysis phase is complete.

Dependencies:

Subject to an approved UNC modification for a new Interruptible within day Auction.

Gemini Summer 2008 Release – COR937 TO Commodity Charge Rebate

Requirements:

- An additional process for redistributing to Shippers over-recovered revenues resulting from Entry Capacity auctions (which have not been satisfied by the existing process covered by PC65).

Impacts:

- Anticipate [2]* new charge types within the Entry Commodity invoice.
- Changes to the Entry Commodity Invoice File Format to accommodate the new charge types including the addition of at least 2 new records.

* To be confirmed following completion of analysis.

Gemini Summer 2008 Release - Summary of Impacts to External Users

- **Introduction of New Interconnector Functionality**
 - Potential impacts to meter set up details
- **New Entry Capacity Licence Obligations introduced as part of TPCR**
 - Changes to existing external facing screens
- **Amending the Scaleback Calculation within Gemini and the Restoration of Interruptible Capacity Rights Post Scaleback**
 - Greater flexibility in release of Interruptible Capacity on D-1 & D.
 - Potentially a new Interruptible within day Auction
- **Transportation Owner (TO) Commodity Charge Rebate & Retrospective Negative TO Commodity Charge**
 - [2] new charge types
 - New records within invoice file to support new charge types

Gemini Summer 2008 Release - Contacts

If you would like further information regarding the Release you can contact a member of the project team.

xoserve:

Andy Simpson (Project Leader) – 0121 623 2744

Lee Foster (Project Manager) – 0121 623 2748

National Grid Transmission:

Iain Pielage (Delivery & Assurance Manager)- 01926 656360