Automated Interchange Check-out
CISS Proposal

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Overview

- Current state
- Proposed changes
- Request-Response
- Electronic Three-part communication
- Developing requirements
- Other benefits
• Operator Calls each BA to checkout Net Scheduled Interchange (NSI)
  – All 15 minute intervals (24x7, 365days)
• 3 part communication
  – Verbal conversation over recorded phone
  – BA’s tool/software to log record of checkout
• Software involved
  – BA’s eTag validation software
  – BA’s system operator’s checkout tool/software
  – BA’s data transfer framework
  – BA’s EMS system
• Solving Discrepancies
  – Manually review all underlying eTags
  – Identify eTag(s) causing discrepancy
  – Potentially issue tag curtailments to resolve discrepancy
  – Potentially override calculated NSI pool total
  – Market Settlements may need to review phone recordings to verify checked out NSI
Proposed changes

• Automated data exchange
  – Pre-calculated Real-time NSI exchange
  – underlying eTag data exchange

• Electronic 3 part communication
  – Each BA will compare it’s NSI records against neighbor records and verify match
  – BA’s interchange tool displays an indicator to it’s system operator showing checked-out NSI

• Automatic discrepancy identification
  – Occasionally a discrepancy exists between Neighboring BA NSI records
  – Each BA’s system operator tool to highlight NSI for affected interval(s)
    • Each BA’s system operator tool also highlights underlying tag causing discrepancy
  – Discrepancy indicator prompts system operators to initiate phone call for manual checkout
    • Tag Curtailments
    • Optional NSI override functionality
    • settlement process maintains status quo
GET https://nsi.BA1.com/NSI/rest/getnsi?start=202003061315&stop=202003061615&type=RT&tag=t&integrated=f&area=BA2

Request details
NSI details
eTag details
Other checkouts
### BA1 Records

<table>
<thead>
<tr>
<th>Event</th>
<th>BA1 NSI</th>
<th>Neighbor NSI</th>
<th>BA1 Verified Flag</th>
<th>Neighbor Verified Flag</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Null</td>
<td>Null</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>1 - confirmed Tag</td>
<td>100</td>
<td>Null</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>2 - BA1 initiates a request</td>
<td>100</td>
<td>100</td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td>3 - BA2 initiates a request</td>
<td>100</td>
<td>100</td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td>4 - BA1 initiates another request</td>
<td>100</td>
<td>100</td>
<td>T</td>
<td>T</td>
</tr>
</tbody>
</table>

### BA2 Records

<table>
<thead>
<tr>
<th>Event</th>
<th>BA2 NSI</th>
<th>Neighbor NSI</th>
<th>BA2 Verified Flag</th>
<th>Neighbor Verified Flag</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Null</td>
<td>Null</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>1 - confirmed Tag</td>
<td>100</td>
<td>Null</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>2 - BA1 initiates a request</td>
<td>100</td>
<td>Null</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>3 - BA2 initiates a request</td>
<td>100</td>
<td>100</td>
<td>T</td>
<td>T</td>
</tr>
<tr>
<td>4 - BA1 initiates another request</td>
<td>100</td>
<td>100</td>
<td>T</td>
<td>T</td>
</tr>
</tbody>
</table>
Development Requirements

- **Internal - Prerequisite**
  - Understand the data specification with respect to local data model
  - Modify tools to add ability to produce and consume data per spec
  - Develop training for system operators

- **External – Work with neighbors**
  - Agreement on data exchange timings – e.g. every 30 seconds
  - Agreement on amount of data – e.g. now + 3 hours
  - Setup data exchange
  - Joint functional testing
  - Agree on call out procedures
  - Document procedures
Other checkouts & data

- Daily NSI
  - Before-the-fact (BTF)
  - After-the-fact (ATF)
- Hourly Integrated Totals
- eTag data

- Out of scope
  - Net Actual Interchange (NAI)
• NSI Data Specification Guide

• Contact
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