Warner Bros & Microsoft
EIDR Integration Pilot

Authored by
Cognizant Technology Solutions
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Executive Summary

- Total estimated direct savings with 1 business partner: **650 hours/year**
- Total estimated future savings with 1 business partner: **1,100 hours/year**
- Total estimated multiplied savings as new biz partners are added: **8,750 hours/year**
  - Additional Partners = The Multiplier Effect (Assume 5)
  - Initial upfront effort is approx. 70%-80% of the total effort
Pilot Overview

- The goal of the pilot was to implement EIDR to address manual process steps that resulted from a lack of a unique product identifier across the content ordering, delivery and reporting workflows between WB and Microsoft.

- The scope of the pilot was New Release theatrical titles owned by WB and ordered by Microsoft for sale on their online storefront on Xbox Live.

Departments

**Warner Bros.**

- **Avails** – Research available titles & announce title avails list to customer
- **Data Servicing** – Manage master data & request EIDR #'s
- **Digital Distribution Ops** – Manage digital supply chain
- **Distribution Services / DETE** – Manage orders, create & deliver digital assets

**Microsoft**

- **Content Management & Operations** – Process avails and order titles, receive and secure assets, ingest metadata & provide performance reporting (Point of Sale & Royalties)

Key Issues

**Warner Bros.**

- **Consolidated Reporting:** Time spent conducting manual searches across multiple sources of data for Product Performance Reporting, Asset Delivery Metrics, Tech Ops Invoicing, etc.
- **Customer Queries:** Time spent responding to retailer inquiries and maintaining data logs and spreadsheets

**Microsoft**

- **Manual QC:** Time spent manually identifying assets delivered by WB
- **Asset Queries:** Difficulty reconciling delivered assets with only title information (no unique identifier)
- **Manual ingestion:** Time spent matching assets to data throughout the distribution workflow
Cognizant worked with WB and Microsoft to identify the workflows in scope, key departments and points of contact.

After initial meetings to understand the processes, questionnaires were created and customized per department to capture the following data points:

- Initial investment activities and efforts for planning, data preparation and integration.
- Workflow steps and corresponding qualitative and quantitative EIDR benefits.
- Additional benefits realized including, spreadsheet elimination, organizational improvements or lower vendor fees.

<table>
<thead>
<tr>
<th>No.</th>
<th>Question Grouping</th>
<th>Question</th>
<th>Warner Bros</th>
<th>Microsoft</th>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Avails</td>
<td>Data Servicing</td>
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<tr>
<td>1</td>
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<tr>
<td>2</td>
<td>INITIAL SET-UP INVESTMENT</td>
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<td>3</td>
<td>Planning Process</td>
<td>Please provide an estimated number of hours/week for your department to participate in EIDR planning meetings since the inception of the POC. How many weeks has your department been involved in the POC?</td>
<td>X</td>
<td>X</td>
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<tr>
<td>5</td>
<td>IMPLEMENTATION INVESTMENT - DATA PREPARATION</td>
<td></td>
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<td>6</td>
<td>Title Matching</td>
<td>For the activity &quot;Received data dump from EIDR and took the Digital Distribution avails list to perform title matching&quot;, what were the steps required for completion and how many total hours of work did this require from your department?</td>
<td>X</td>
<td>X</td>
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<tr>
<td>8</td>
<td>IMPLEMENTATION INVESTMENT - INTEGRATION</td>
<td></td>
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<td>9</td>
<td>EIDR API</td>
<td>For the API integration with EIDR (to register new feature titles going forward), what were the steps required to complete this task and how many total hours of work did this require from your department?</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>14</td>
<td>QUESTIONS - PCC ENDS</td>
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<tr>
<td>15</td>
<td>WORKFLOW STEPS AND BENEFITS</td>
<td></td>
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<tr>
<td>16</td>
<td>Title Registration - WB</td>
<td>How many total hours of work are required from your department to register a single title in EIDR? Are there any incremental hours needed to register a new title in your existing systems as a result of EIDR?</td>
<td>X</td>
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</tr>
<tr>
<td>17</td>
<td>Announce Avails - WB</td>
<td>Are there any projected time savings through the use of EIDR associated with collecting title data and reviewing the information against rights availability and already sold titles to develop the avails list? If so, please provide the step automated or improved and the total hours of savings per title.</td>
<td>X</td>
<td>X</td>
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There are several set-up activities and decisions that need to be considered for a successful implementation:

1. **Confirm Scope & Obtain Support**
   - Appoint an initiative leader
   - Decide on workflows and scope
   - Conduct regular planning meetings up to 12 months prior to launch

2. **Plan & Prepare Data Structure**
   - Determine how to integrate the EIDR # and attributes
     - Implement EIDR at a title and version level
     - Include EIDR # in avails & metadata provided by WB to Microsoft
     - Include EIDR # in asset file names delivered to Microsoft
     - Include EIDR # in POS and Royalty reporting back to WB

3. **Integrate Systems & Workflows**
   - Document future state integration diagram
   - Establish integration initiatives
     - Develop an API to obtain EIDR #’s for each new title
     - Modify integration between WB’s MDM system ‘MSB’ and the avails system to provide EIDR #
   - Use EIDR # on avails list, metadata and file name to reconcile title master data
EIDR Initiation & Setup

- The total initiation and set-up time for this pilot was 811 hours for WB and 114 hours for Microsoft, across multiple departments and 6-8 resources.
- Planning effort spanned approximately 1 year equating to an average of ~15 hours/week.

### Activities

#### Planning Process: Participate in EIDR planning meetings since the inception of the POC
- **Activities:** Participate in EIDR planning meetings since the inception of the POC
- **Hrs:** 279

#### Title Matching: Received data dump from EIDR & took the avails list to perform title matching for all titles
- **Activities:** Received data dump from EIDR & took the avails list to perform title matching for all titles
- **Hrs:** 172

#### Reporting: Create XML title list report with EIDR to provide to Microsoft
- **Activities:** Create XML title list report with EIDR to provide to Microsoft
- **Hrs:** 60

#### API: Develop the API integration with EIDR (to register new Feature titles going forward)
- **Activities:** Develop the API integration with EIDR (to register new Feature titles going forward)
- **Hrs:** 406

#### Integration & Retrofitting: Integrate WB’s master data management system ‘MSB’ with the Digital Avails Portal to pass EIDR # to avails
- **Activities:** Integrate WB’s master data management system ‘MSB’ with the Digital Avails Portal to pass EIDR # to avails
- **Hrs:** 8

#### Other Costs: Hardware or software costs required for any of the EIDR integration activities
- **Activities:** Hardware or software costs required for any of the EIDR integration activities
- **Hrs:** NA

### Summary

- **Activities:**
  - Finance & Accounting
  - Sales & Planning
  - Distribution Services / DETE
  - Content Operations
  - Avails/RRTS

- **Data Servicing:**
  - DDOPS

- **Total Effort:** 925 Hours
**Integration Points**

The scope of this pilot included development of 2 new integration points for WB.

1. WB’s MSB metadata management system to the EIDR directory. Requests and applies new EIDR #’s to WB titles.
   - Facilitating Microsoft reporting back to WB with EIDR detail

2. WB’s MSB system to the Avails system (RRTS) to provide the EIDR # on avails titles
   - Select titles from avails list
   - Open internal project & place order

**Benefits Identified**

- Reduction in QC efforts
- Reduction in customer queries
- Improved reporting / invoicing capabilities

**Workflow**

1. Request new title Data Servicing
2. Issue title list with EIDR # Data Servicing
3. Announce avails Avails
4. Review material request Distribution Services/ DETE
5. Create media order Distribution Services/ DETE
6. Create & deliver files Distribution Services/ DETE
7. Process Re-bill Invoicing Tech Ops Finance
8. Consolidate reporting Finance & Accounting
9. Reconcile metadata with asset file names
10. Process metadata and publish asset to store front
11. Report POS & royalty data

**Integration Points**

- EIDR Registry
- API call
- Select titles from avails list
- Open internal project & place order
- Reconcile metadata with asset file names
- Process metadata and publish asset to store front
- Report POS & royalty data
- Daily/monthly reports
- Avails list
- Orders
- Mezzanine file & Metadata
## Pilot Benefits: Expected Benefits Identified as Result of Pilot

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<tr>
<th>Issue</th>
<th>Solution</th>
<th>Metrics</th>
<th>Party</th>
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<tbody>
<tr>
<td>Significant Manual QC</td>
<td><strong>Solution</strong>&lt;br&gt;• Providing Avails list to Microsoft with EIDR #’s&lt;br&gt;• Adding EIDR # to the delivered file name&lt;br&gt;• Matching mezzanine file name</td>
<td><strong>Effort Reduction</strong>&lt;br&gt;• Approx. 5,400 files delivered/year&lt;br&gt;• 1-2 minutes QC per file&lt;br&gt;• Equals up to 270 hours/year or ~ .15 FTE</td>
<td>Retailer</td>
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<td></td>
<td><strong>Benefit: Reduction in QC effort (in receiving)</strong>&lt;br&gt;• Microsoft matches EIDR # in the file name to the Avails list without the need to manually QC/reconcile the asset version</td>
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<td>Fuzzy Title Matching Delivery Metrics Reporting</td>
<td><strong>Solution</strong>&lt;br&gt;• Provide EIDR #’s to retailers who can include in reporting back to WB</td>
<td><strong>Effort Reduction</strong>&lt;br&gt;• ~100 ad-hoc report requests/year&lt;br&gt;• Average 5 hours per request&lt;br&gt;• Equals 375 hours/year or 0.22 FTE</td>
<td>Content Provider</td>
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<td><strong>Benefit: Reduced Time Matching Data</strong>&lt;br&gt;• Reduction in manual effort to match title data provided by different retailers with internal reporting for delivery reports</td>
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<tr>
<td>Asset Identification Queries</td>
<td><strong>Solution</strong>&lt;br&gt;• WB able to more efficiently research queries&lt;br&gt;• Microsoft able to identify assets using EIDR # on the Avails list and the file name. Reducing query volume</td>
<td><strong>Effort Reduction</strong>&lt;br&gt;• Approx. 50 queries from Microsoft/year&lt;br&gt;• Avg 5-10 mins to resolve query&lt;br&gt;• Equals ~7 hours/year for 1 partner</td>
<td>Retailer Content Provider</td>
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<td><strong>Benefit: Reduced customer queries</strong>&lt;br&gt;• Customer service effort reduced&lt;br&gt;• Reduction in time to maintain data logs and spreadsheets to handle customer queries</td>
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## Future Potential Benefits: After Full System Integration of EIDR

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<th>Issue</th>
<th>Solution</th>
<th>Metrics</th>
<th>Party</th>
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<tr>
<td><strong>Manual Re-Bill Invoicing Processes</strong></td>
<td><strong>Solution</strong>&lt;br&gt;• Integrating EIDR # into WB’s order management system and matching asset delivery data</td>
<td><strong>Effort Reduction</strong>&lt;br&gt;• 2 days to process large files&lt;br&gt;• Additional 1 day to complete vlookups/research&lt;br&gt;• Approx. 1,000 less hours/year or ~.5 FTE&lt;br&gt;• Based on reduction in manual title matching component</td>
<td><strong>Content Provider</strong></td>
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<td>• Manually matching internal invoice line items with retailer product identifiers&lt;br&gt;• WB must export invoice data to spreadsheets and manually link every title to its partner’s unique IDs&lt;br&gt;• Determines material servicing and delivery fees</td>
<td><strong>Benefit</strong>: Reduction in manual effort to match internal job data with retailer identifiers&lt;br&gt;• Including extracting invoice line items, researching external product numbers &amp; title name matches&lt;br&gt;• Reducing dependence on fuzzy title matching based on text fields</td>
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<td><strong>Manual Performance Reporting Processes</strong></td>
<td><strong>Solution</strong>&lt;br&gt;• Using the full EIDR parent child structure at the version level in POS and Royalty reporting</td>
<td><strong>Effort Reduction</strong>&lt;br&gt;• 3-4 high complexity reports/month taking 1-2 days&lt;br&gt;• 16 low complexity reports/year taking 2-4 hours&lt;br&gt;• Equals 96 less hours/year</td>
<td><strong>Content Provider</strong></td>
</tr>
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<td>• Sales performance reporting using raw data files from retailers&lt;br&gt;• Manually matching data using title match searches &amp; vlookups</td>
<td><strong>Benefit</strong>: Quicker more accurate data consolidation/Better decision making&lt;br&gt;• Enable better matching &amp; and consolidation of sales data&lt;br&gt;• Improved business decisions can be made because of the efficiency and accuracy of the data reported</td>
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<td>Technical Services Organizations</td>
<td>• <em>Uses EIDR to automatically link asset servicing requests/deliveries with billing and reporting</em></td>
<td>X</td>
<td>X</td>
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<td>Cable Service Provider or Broadcasters</td>
<td>• <em>Uses EIDR to track VOD metrics across several partners including, MSOs, content networks, on-demand delivery partners and usage measurement organizations</em></td>
<td>X</td>
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<td>Digital Subscription Rental Channel</td>
<td>• <em>Uses EIDR to provide by-title reporting back to content owners for rev share deals</em></td>
<td>X</td>
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<td>Ad-Supported Digital Streaming Channel</td>
<td>• <em>Uses EIDR # to link ad-sales metrics with social media reporting</em></td>
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