ORACLE

Using Blockchain for Imagery Supply Chain Management

Leon H. Davidson
Cyber Security Principal Architect
Oracle National Security Group

Safe harbor statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, timing, and pricing of any features or functionality described for Oracle's products may change and remains at the sole discretion of Oracle Corporation.

Statements in this presentation relating to Oracle's future plans, expectations, beliefs, intentions and prospects are "forward-looking statements" and are subject to material risks and uncertainties. A detailed discussion of these factors and other risks that affect our business is contained in Oracle's Securities and Exchange Commission (SEC) filings, including our most recent reports on Form 10-K and Form 10-Q under the heading "Risk Factors." These filings are available on the SEC's website or on Oracle's website at http://www.oracle.com/investor.

All information in this presentation is current as of February 2020 and Oracle undertakes no duty to update any statement in light of new information or future events.

© 2020 Oracle and/or its affiliates. All Rights Reserved

Executive Summary

Not long ago, all Geospatial imagery was supplied by known and trusted sources, and the delivery of data was strictly managed within controlled environments. With ever-increasing commercial capabilities also providing Geospatial imagery to the DoD and IC, questions and concerns regarding the authenticity or fidelity of imagery now pose serious security issues.

Blockchain can be utilized to manage the supply chain of all imagery throughout its lifecycle - from origination to the final work product. Additionally, any derivative products can also be associated utilizing blockchain technologies.

By utilizing a watermark feature tied to a blockchain ledger, several issues can be easily resolved, including:

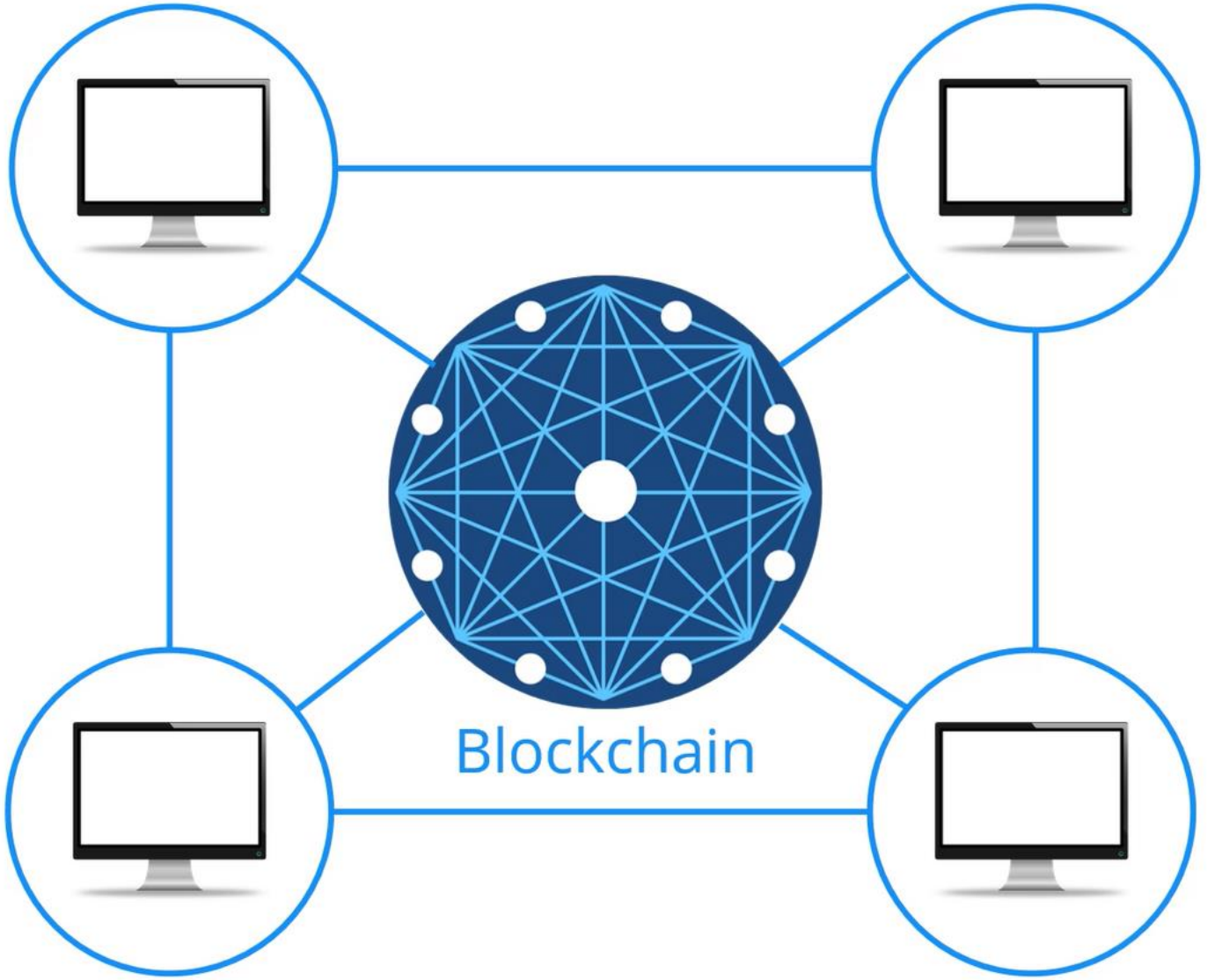
- Transaction History and Chain of Custody
- Validation of original content
- Identification of edited or tampered portions of the imagery media

© 2020 Oracle and/or its affiliates. All Rights Reserved

Blockchain

Image Tracking Demo

© 2020 Oracle and/or its affiliates. All Rights Reserved

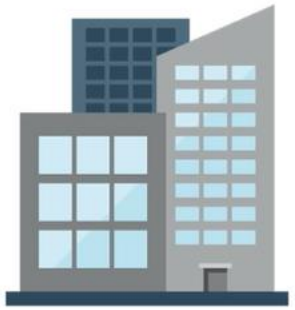


© 2020 Oracle and/or its affiliates. All Rights Reserved

© 2020 Oracle and/or its affiliates. All Rights Reserved

© 2020 Oracle and/or its affiliates. All Rights Reserved

© 2020 Oracle and/or its affiliates. All Rights Reserved



© 2020 Oracle and/or its affiliates. All Rights Reserved

© 2020 Oracle and/or its affiliates. All Rights Reserved

© 2020 Oracle and/or its affiliates. All Rights Reserved

© 2020 Oracle and/or its affiliates. All Rights Reserved

© 2020 Oracle and/or its affiliates. All Rights Reserved

ORACLE Intelligent Track and Trace

Trading Partners > American Aviation and Space Administration

TRADING PARTNERS
0

BUSINESS FLOWS
4

ROLES
BACKUP,CHANGER,CREATOR,END OF LIFE,TRANSMITTER,VIEWER

LOCATIONS

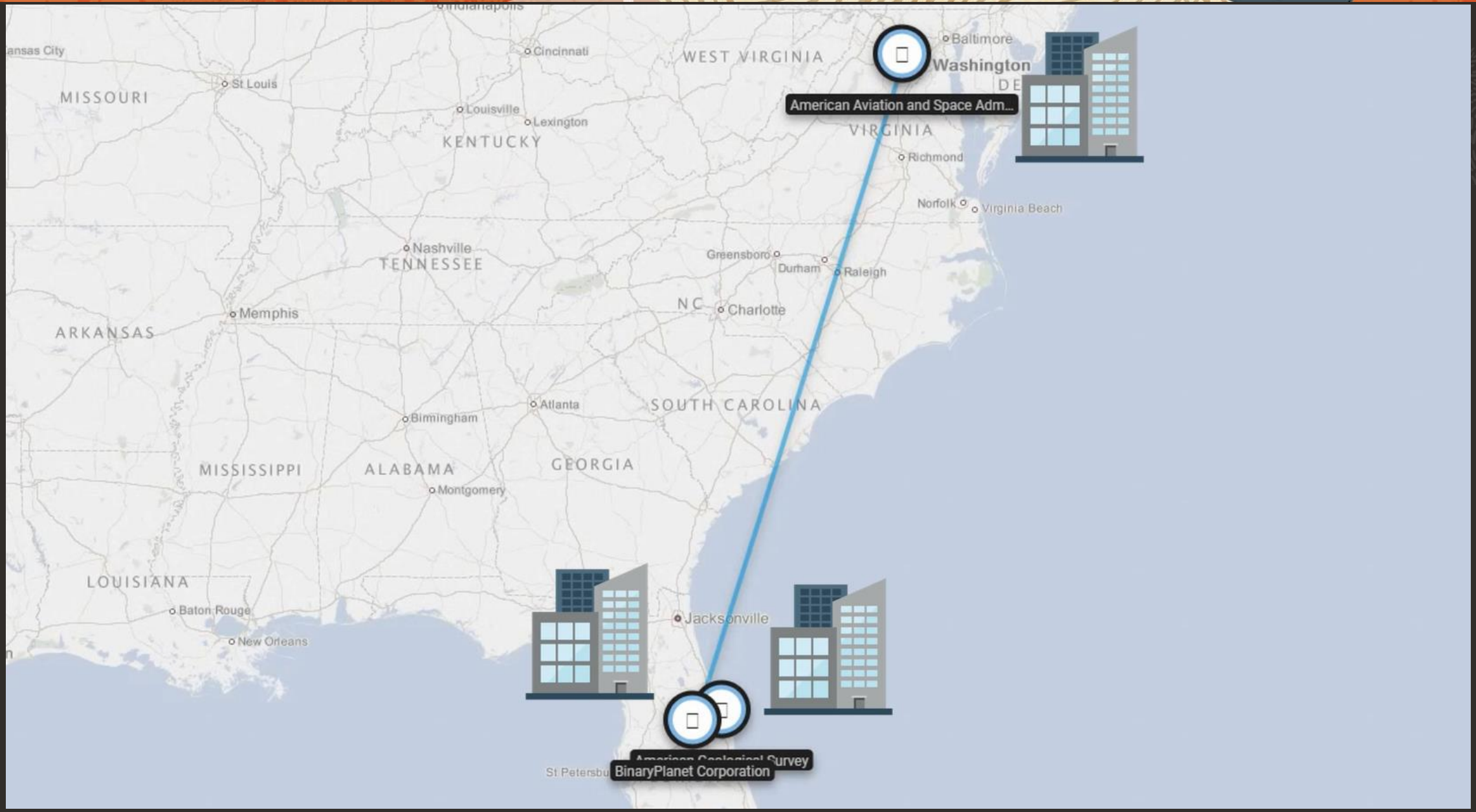
ADDRESS
14390 Air and Space Museum Pkwy , Chantilly
Virginia 20151

CONTACT
Joy Beck
joy.beck@aasa.us.gov

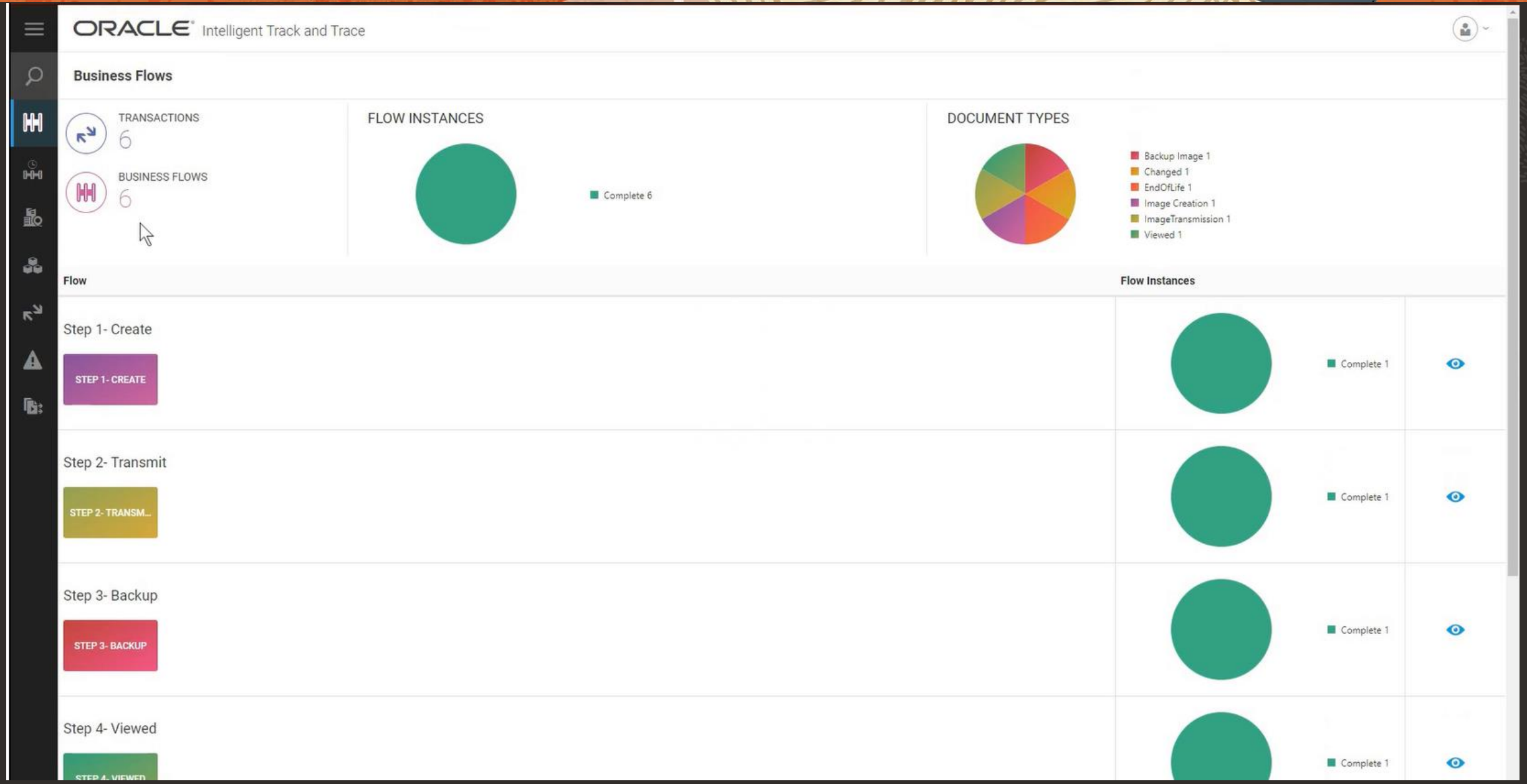
LOCATIONS

Name	IDs	Address
HQ	TAX ID 1	14390 Air and Space Museum Pkwy, Chantilly Virginia 20151

© 2020 Oracle and/or its affiliates. All Rights Reserved

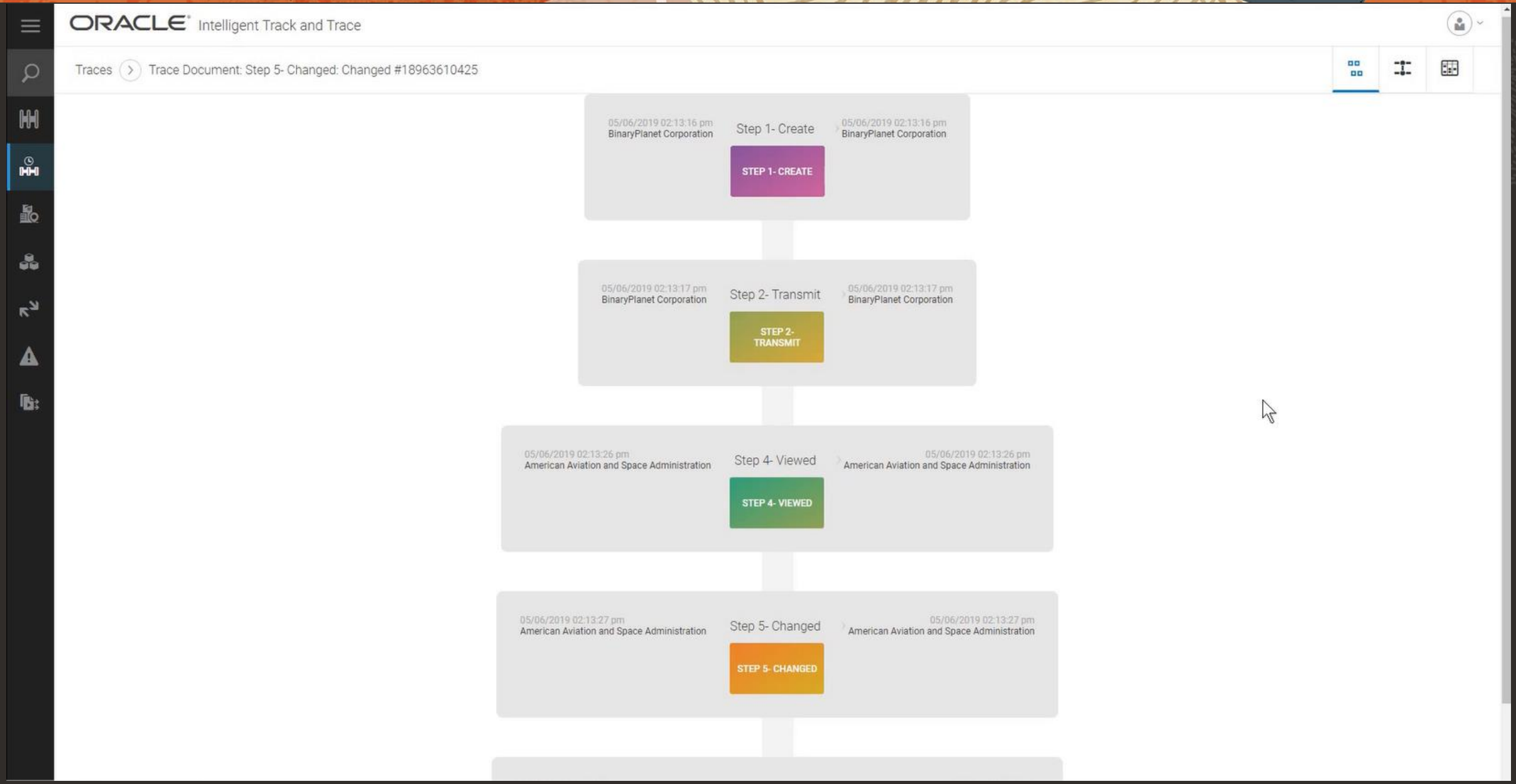


© 2020 Oracle and/or its affiliates. All Rights Reserved



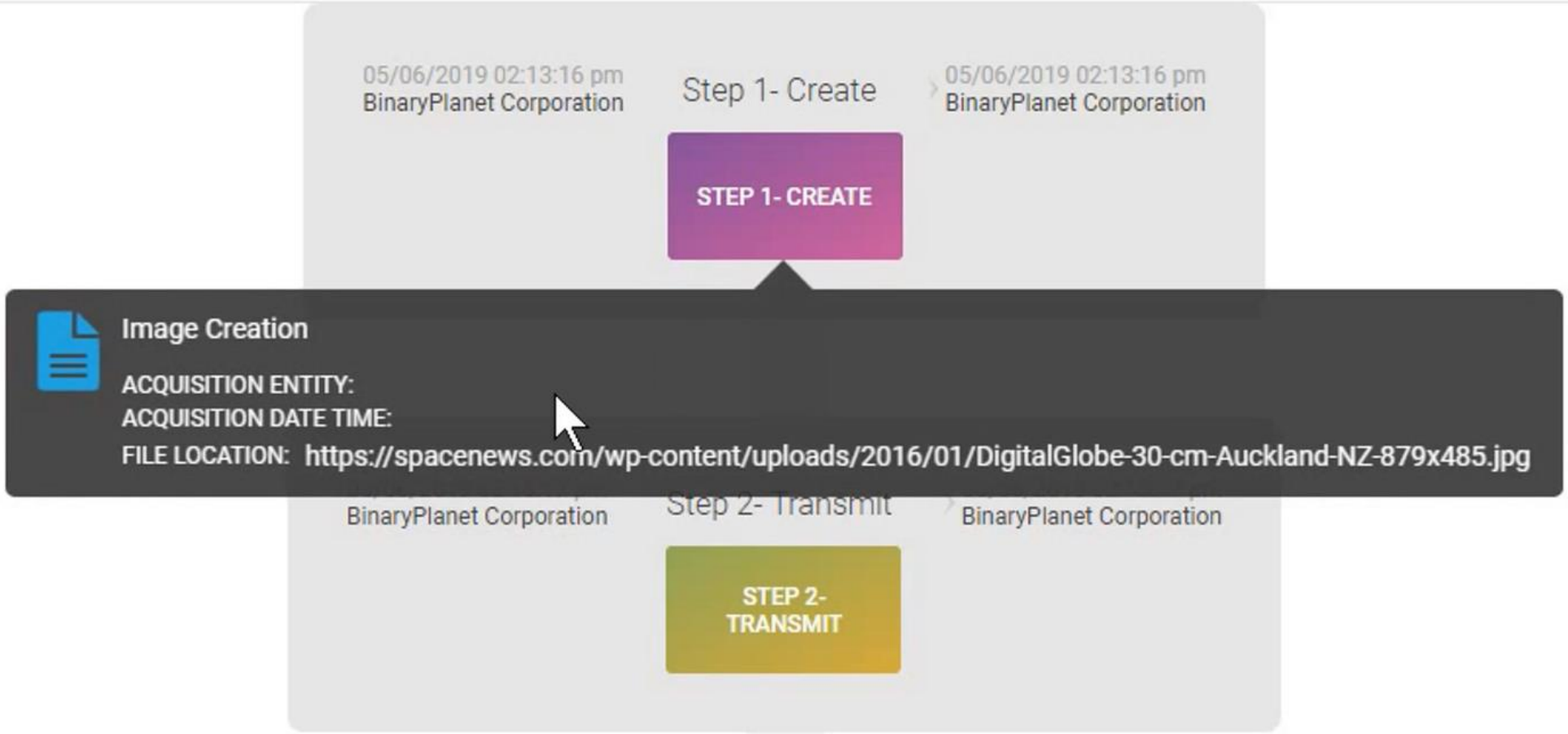
© 2020 Oracle and/or its affiliates. All Rights Reserved

© 2020 Oracle and/or its affiliates. All Rights Reserved

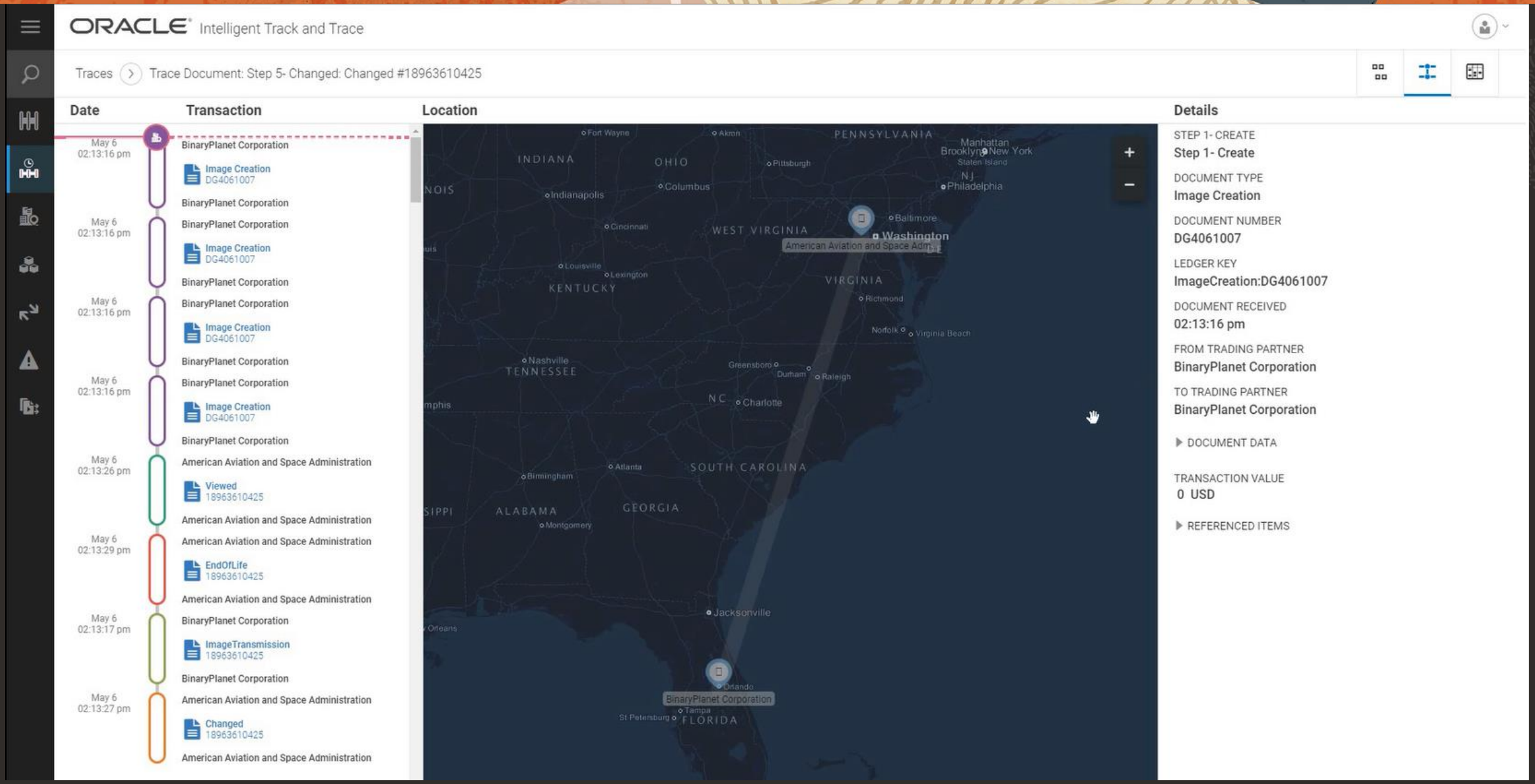


© 2020 Oracle and/or its affiliates. All Rights Reserved

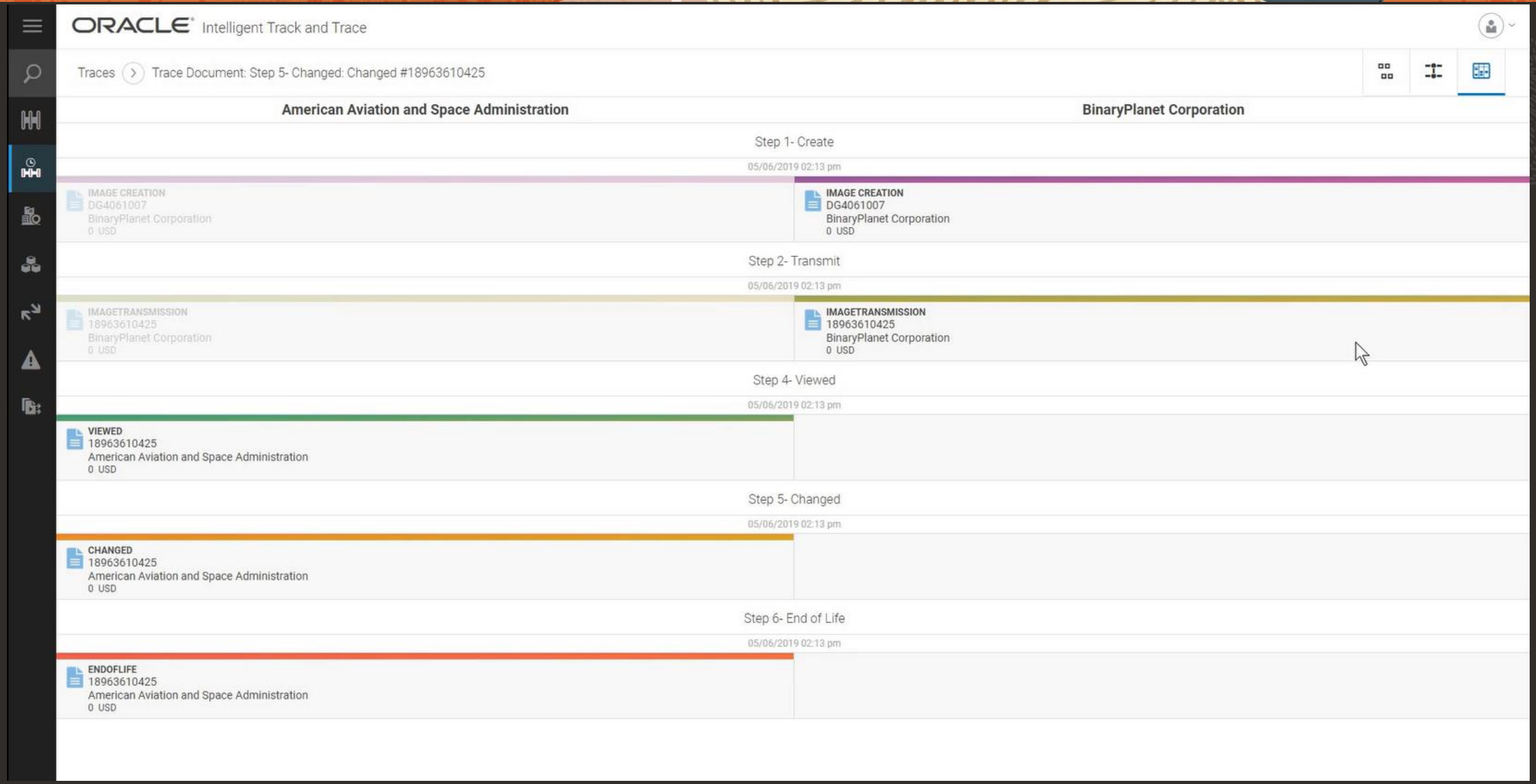
18963610425



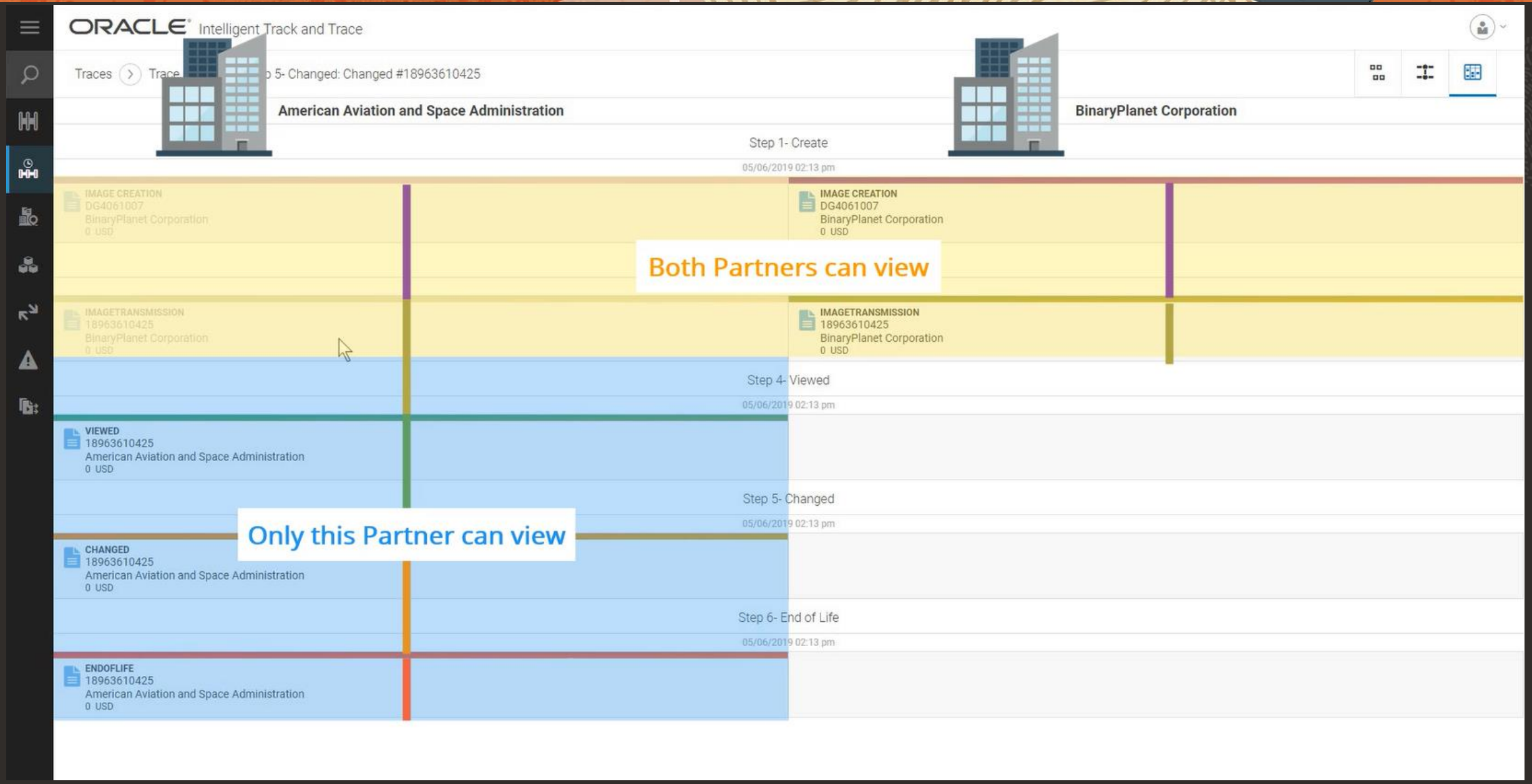
© 2020 Oracle and/or its affiliates. All Rights Reserved



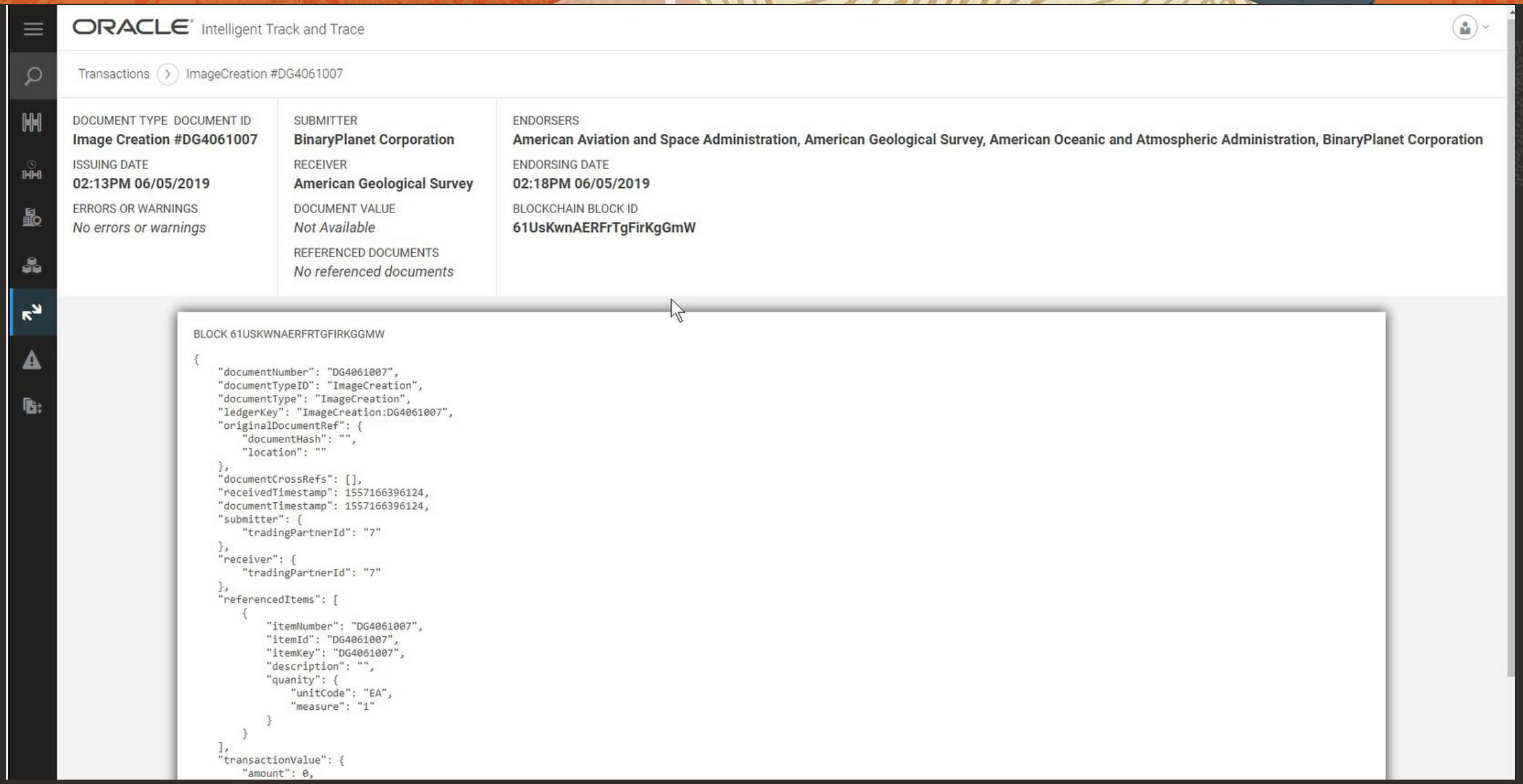
© 2020 Oracle and/or its affiliates. All Rights Reserved



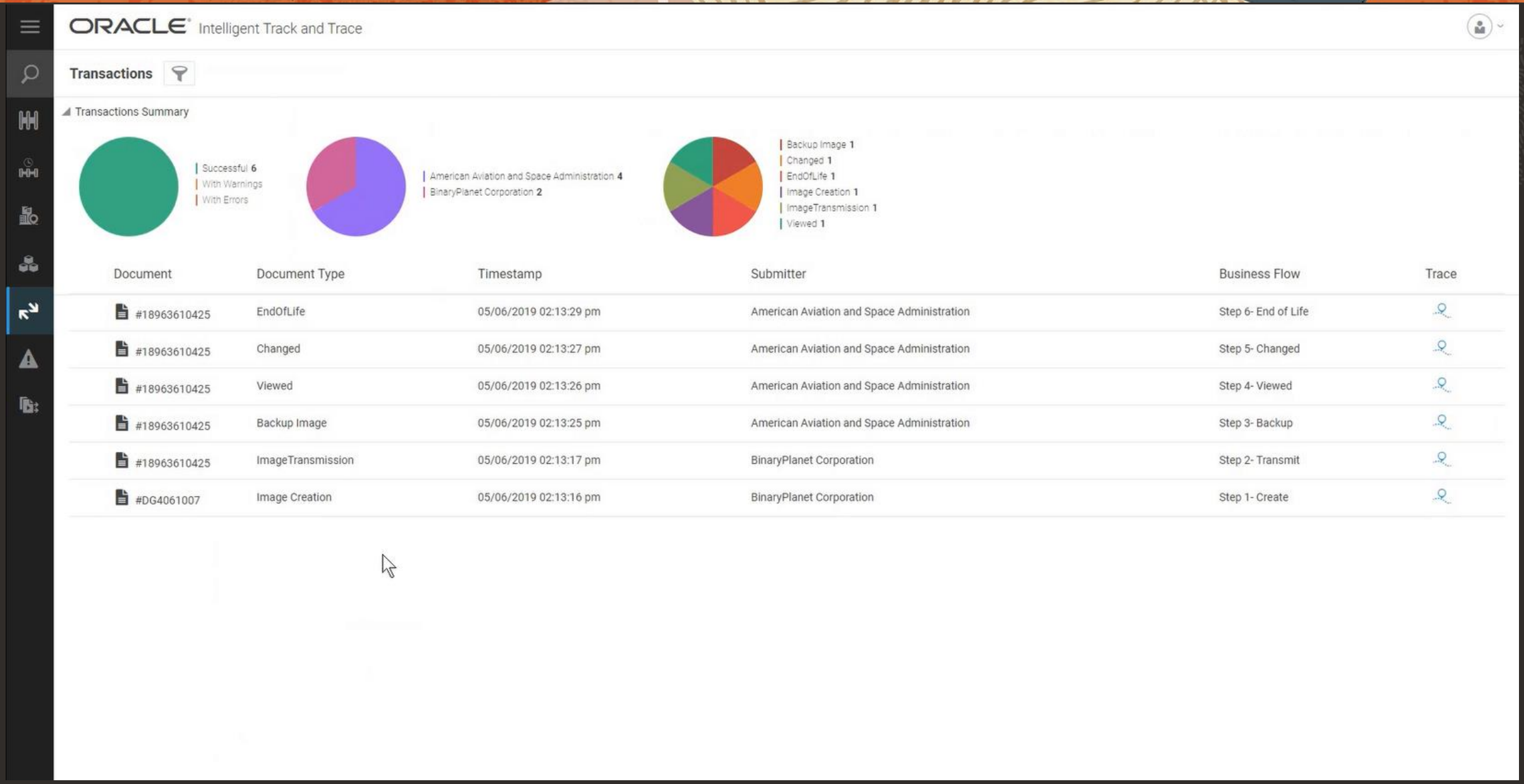
© 2020 Oracle and/or its affiliates. All Rights Reserved



© 2020 Oracle and/or its affiliates. All Rights Reserved



© 2020 Oracle and/or its affiliates. All Rights Reserved



© 2020 Oracle and/or its affiliates. All Rights Reserved

ORACLE Intelligent Track and Trace

Back Save

Edit

Name * LD Step 1 only

Repetition Interval * 1 seconds

Document Generation Interval * 1 seconds

Generate Failure Every * 10 Document Sent

Maximum number of runs * 12

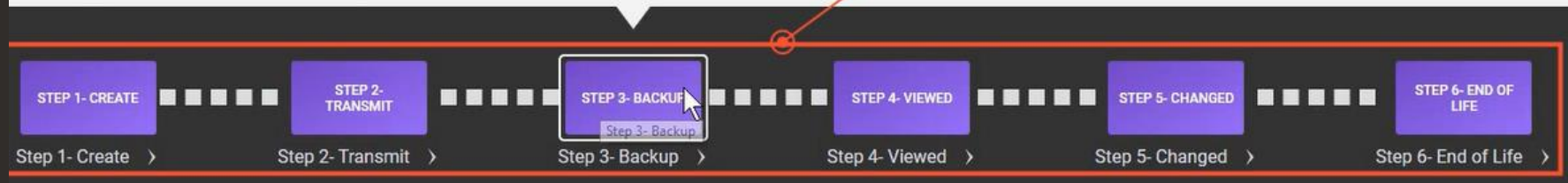
Business Flows *

Step 1- Create × Step 2- Transmit × Step 3- Backup × Step 4- Viewed × Step 5- Changed × Step 6- End of Life ×

STEP 3- BACKUP: CUSTOM SIMULATED ATTRIBUTES

TransactionId	REFERENCE previous document "Step 1- Create/Step 1- Create" -> "TransactionId"
TransationDate	REFERENCE previous document "Step 1- Create/Step 1- Create" -> "TransactionDate"
BackupLocation	CONSTANT "null"
BackupDateTime	CONSTANT "null"
ImageID	REFERENCE previous document "Step 1- Create/Step 1- Create" -> "ImageID"

Test-Drive Business Flows and Transactions



© 2020 Oracle and/or its affiliates. All Rights Reserved

Summary

Blockchain can be utilized to manage the supply chain of imagery throughout its lifecycle - from origination to the final work product. Additionally, any derivative products can also be associated.

By utilizing a blockchain ledger, several issues can be easily resolved:

- Transaction History and Chain of Custody
- Validation of original content
- Identification of edited or tampered portions of the imagery media

© 2020 Oracle and/or its affiliates. All Rights Reserved

ORACLE