



# Financial Services Demo

August 2021

# Financial Services Demo Challenges and Solution

## Customer Challenges

Financial services companies seeking multiple data source integration with global distributed MDM for CRM, GDPR, AML, fraud detection, reporting, BI, other analytics, compliance, regulatory, etc. solutions

Need self-service reporting, BI and analytics

Need a simple-to-use, fast and highly interactive graph database UI with data filtering

## SmartData Fabric® (SDF) Solution

- Connect to data sources
- Address data discovery, quality and security
- Build indexes and instantiate adapters for data sources
- Map indexes to a Standard Data View and designate entities for link mapping and MDM
- Run and maintain distributed MDM
- Use reporting and BI application and execute queries on SDF directly – not data extract mode
- Leverage OEM Cambridge Intelligence KeyLines server-based interactive graph visualization
- Develop additional views and controls, as needed



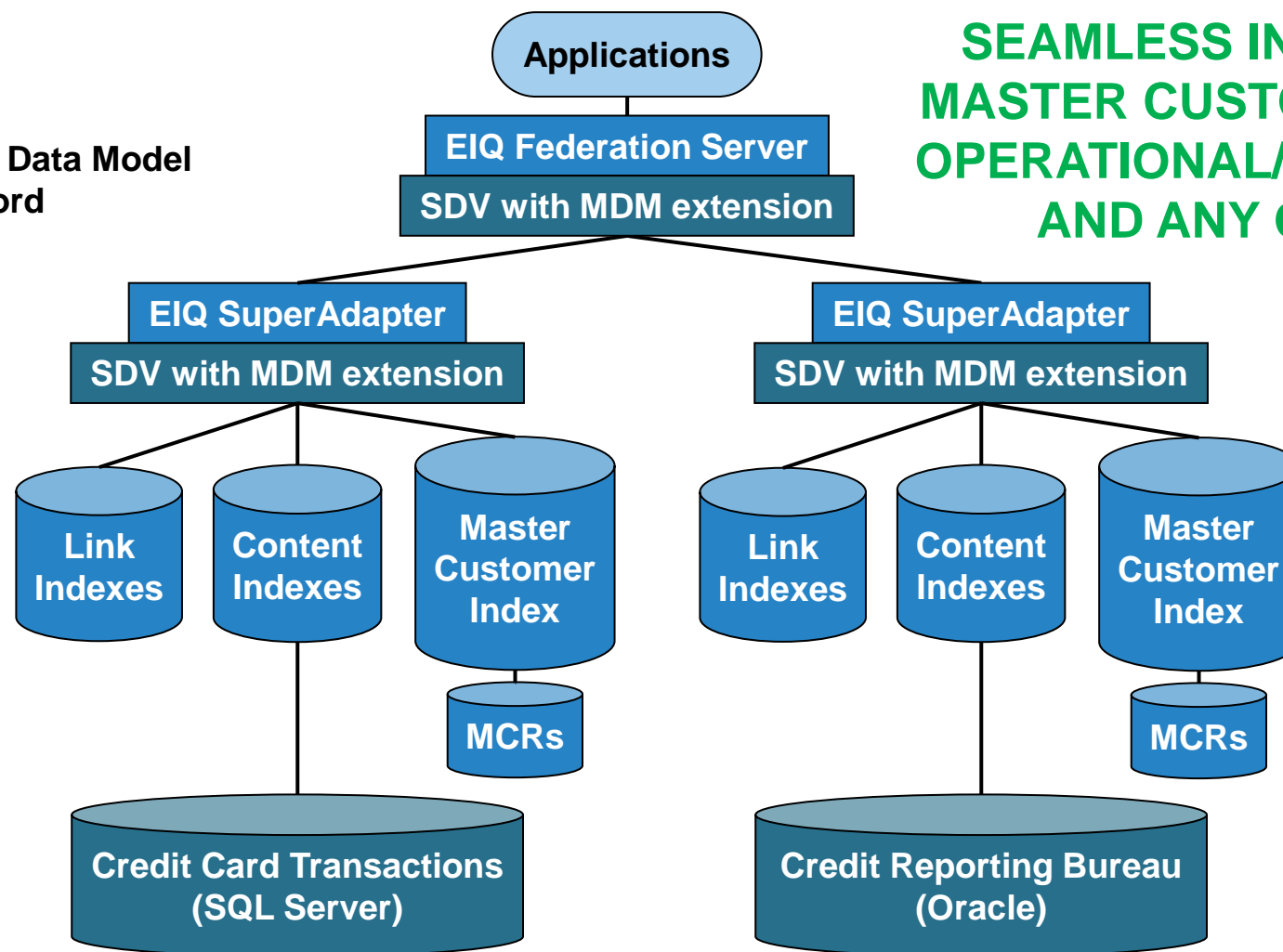
## Demo Steps Available

1. Run automated network, device and data source discovery
2. Build data profiles with raw (unmodified data) indexes using a credit card transactions database and a credit bureau database
3. Configure data source adapters
4. Analyze raw index data profiles to develop and test data transforms
5. Build production indexes using data transforms on raw data
6. Map indexes to a Standard Data View (based on a Metadata Dictionary imported from a Standard Data Model – usually from industry)
7. Configure a federation server across multiple data source adapters
8. Configure and build MDM
9. Run QlikView reports against an MDM-based integrated view of data in multiple data sources
10. Run a graph visualization of MDM-based credit card transactions
11. Run a virtual customer MDM-based graph visualization and report of all customer-related data, some of which could be identified as personal data according to GDPR

# Demo Configuration

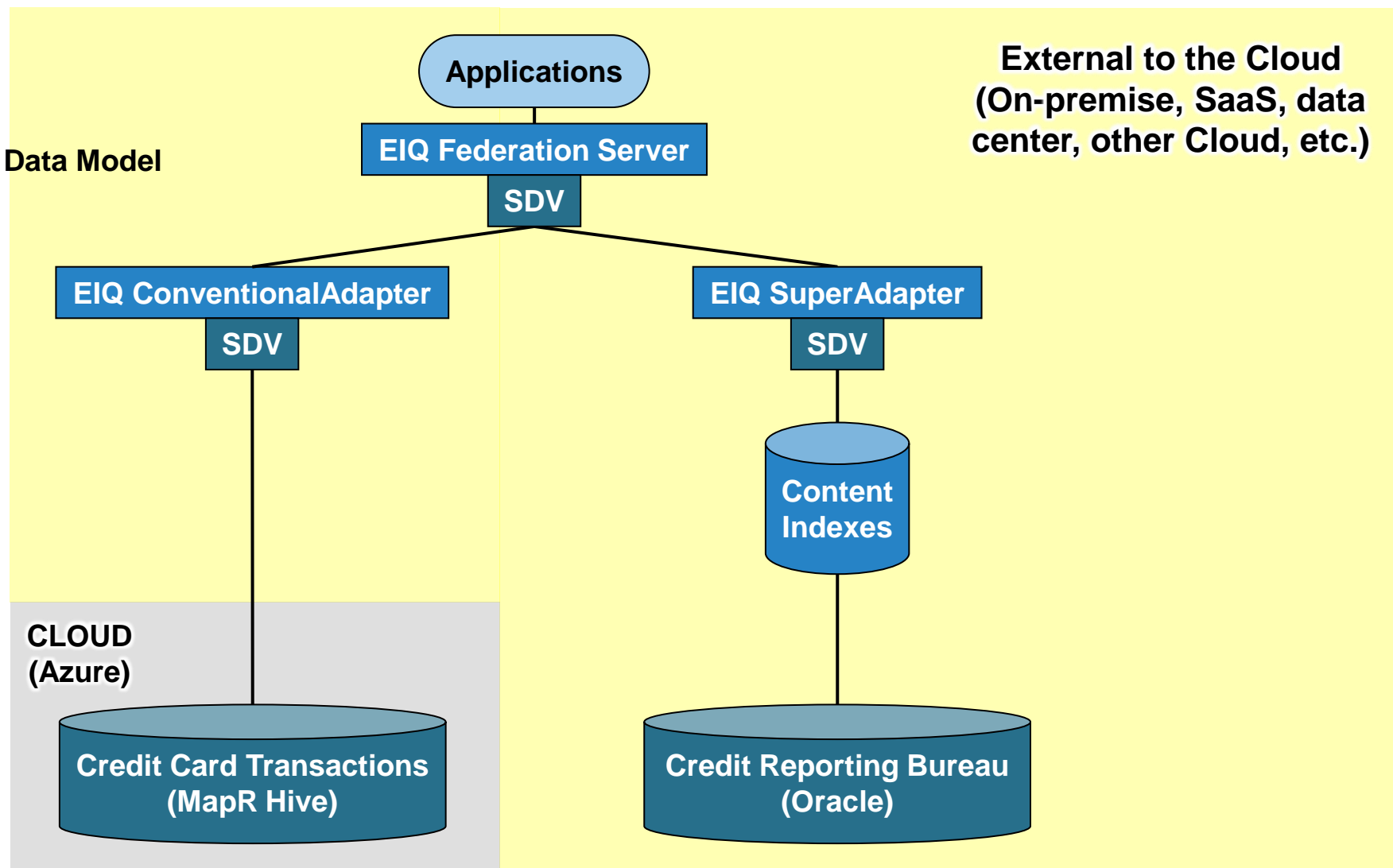
SDV = Standard Data View  
aka Standard/Common Data Model  
MCR = Master Customer Record

**SEAMLESS INTEGRATION OF  
MASTER CUSTOMER DATA WITH  
OPERATIONAL/TRANSACTIONAL  
AND ANY OTHER DATA**



# MapR Hive in Cloud Demo Configuration

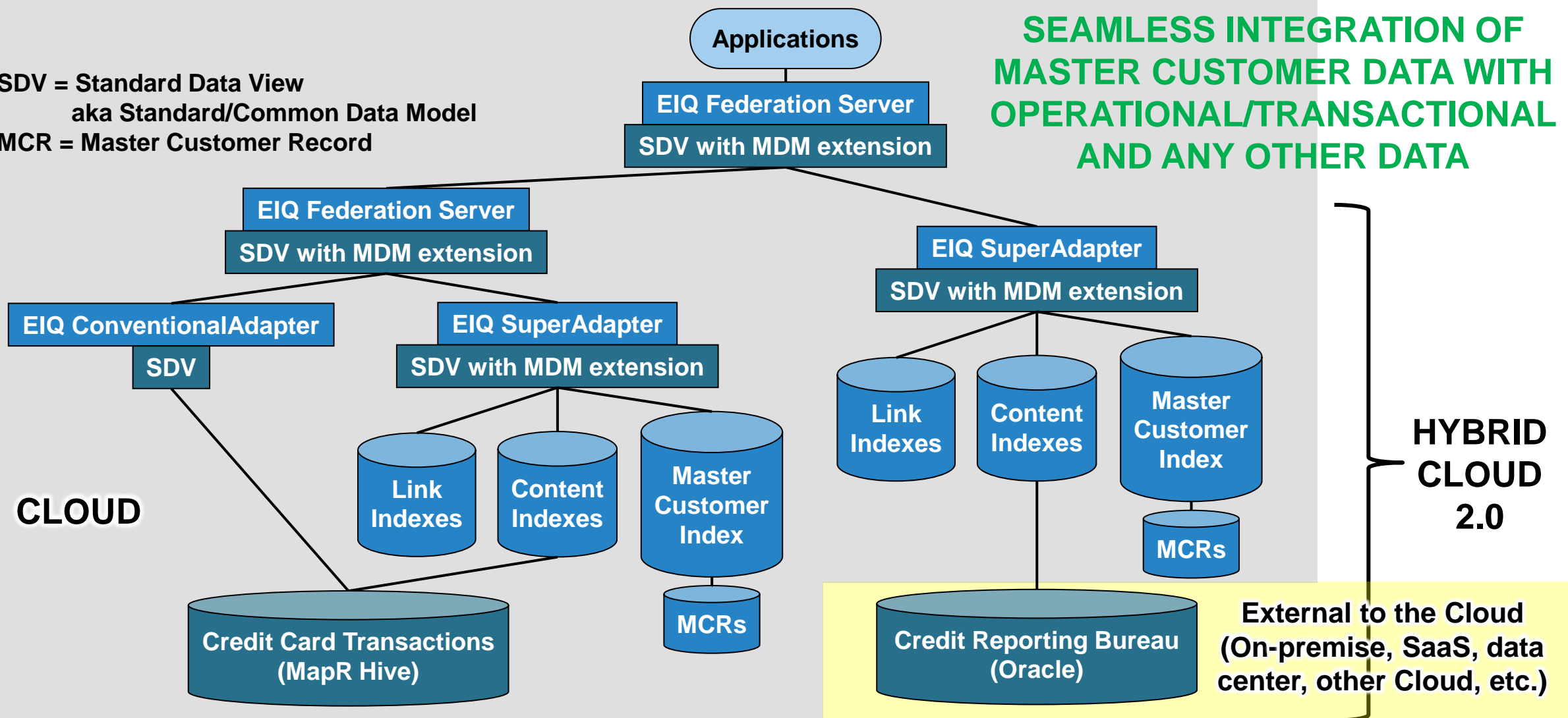
SDV = Standard Data View  
aka Standard/Common Data Model



# Future Cloud and Hybrid Cloud 2.0 Demo Configuration

SDV = Standard Data View  
aka Standard/Common Data Model  
MCR = Master Customer Record

**SEAMLESS INTEGRATION OF  
MASTER CUSTOMER DATA WITH  
OPERATIONAL/TRANSACTIONAL  
AND ANY OTHER DATA**



## Appendix: Demo Screenshots


Demo videos are also available at

<https://www.youtube.com/watch?v=NbyBOleNkZQ>

or through <https://www.whamtech.com/financial-services-demo/>



# Web App for Virtual Master Customer Index (VMCI)

Virtual Master Customer Index by  **SmartData Fabric™**

Master Customer Index

First Name

Last Name

SSN

Phone

DOB

spade

Search

Entity Properties

Visualization Controls

DOS - 1 +

Query Results

1 to 1 rows. 

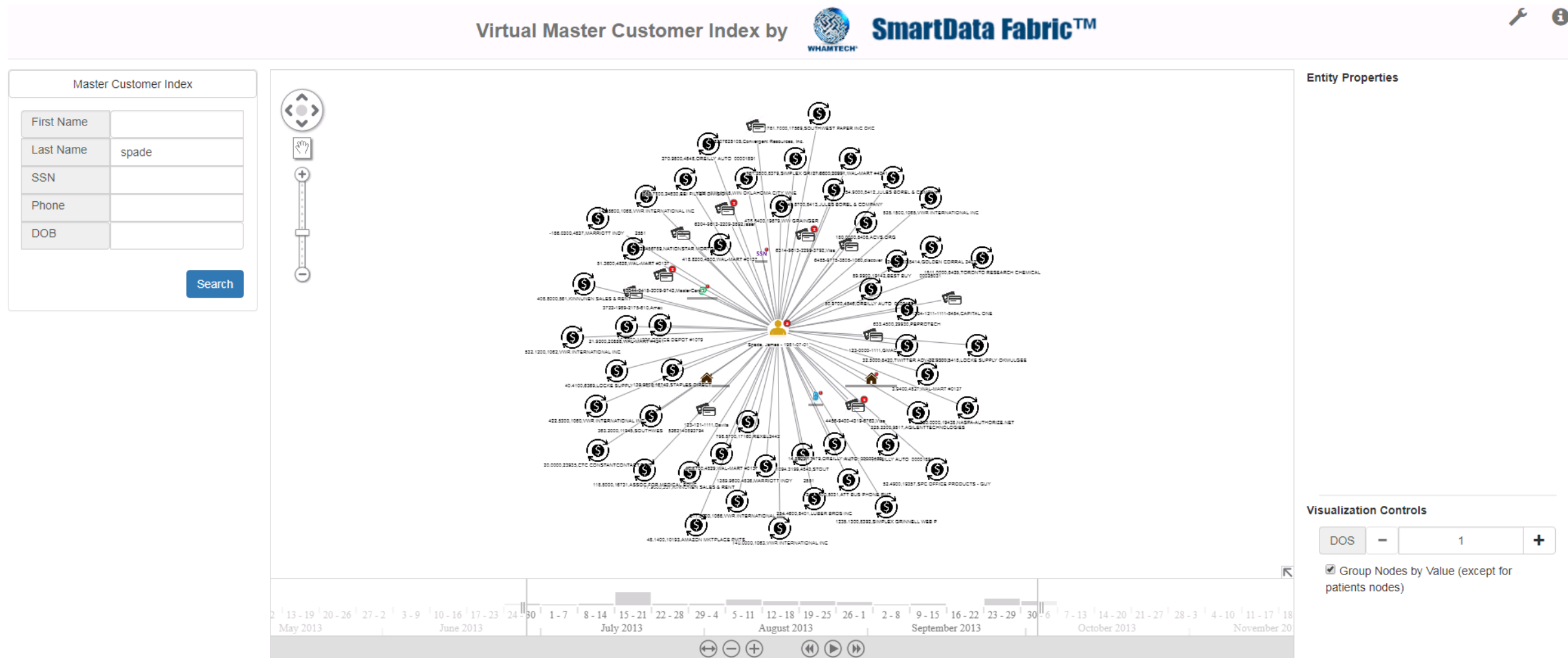
Previous

Next

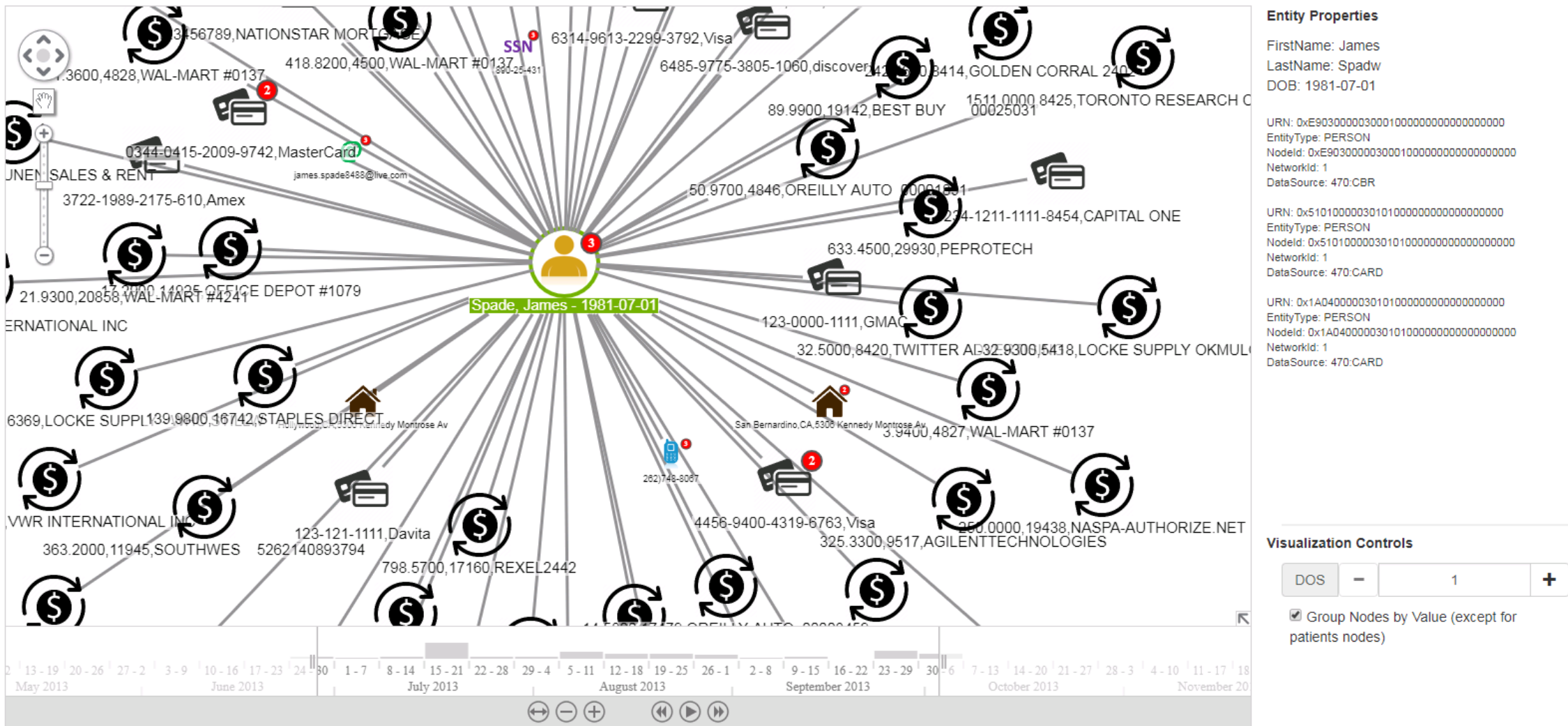
MPI_MDM_ID	MPI_FIRSTNAME	MPI_LASTNAME	MPI_DOB	MPI_CITY	MPI_ZIP	MPI_STREET1	MPI_STATE	MPI_PHONENUMBER
470	JAMES	SPADE	1981-07-01 00:00:00.0	SAN BERNARDINO	92302	5306 KENNEDY MONTROSE AV	CA	(262)748-8067



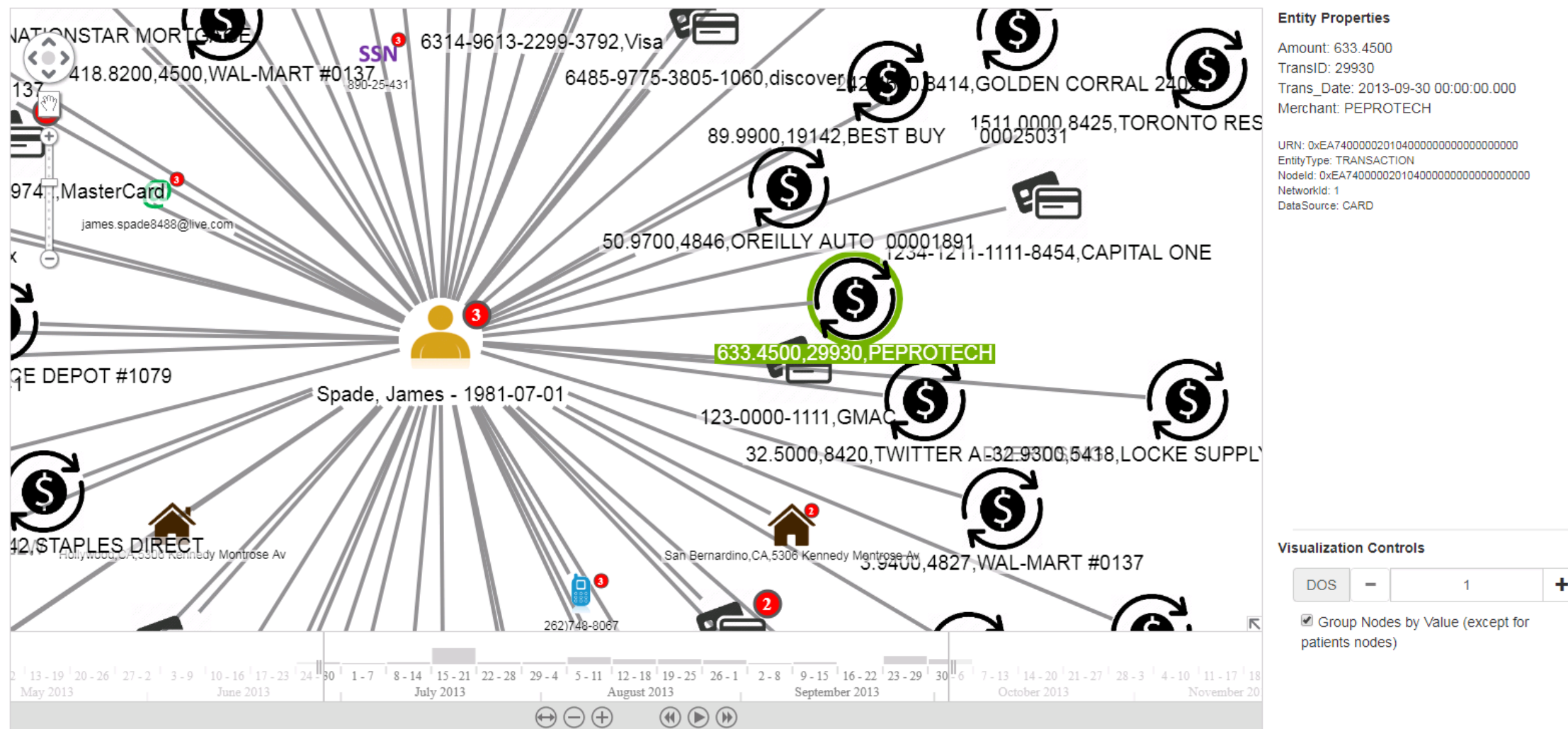
# A PERSON-centric Linked Data View



# Close-up of PERSON-centric Linked Data

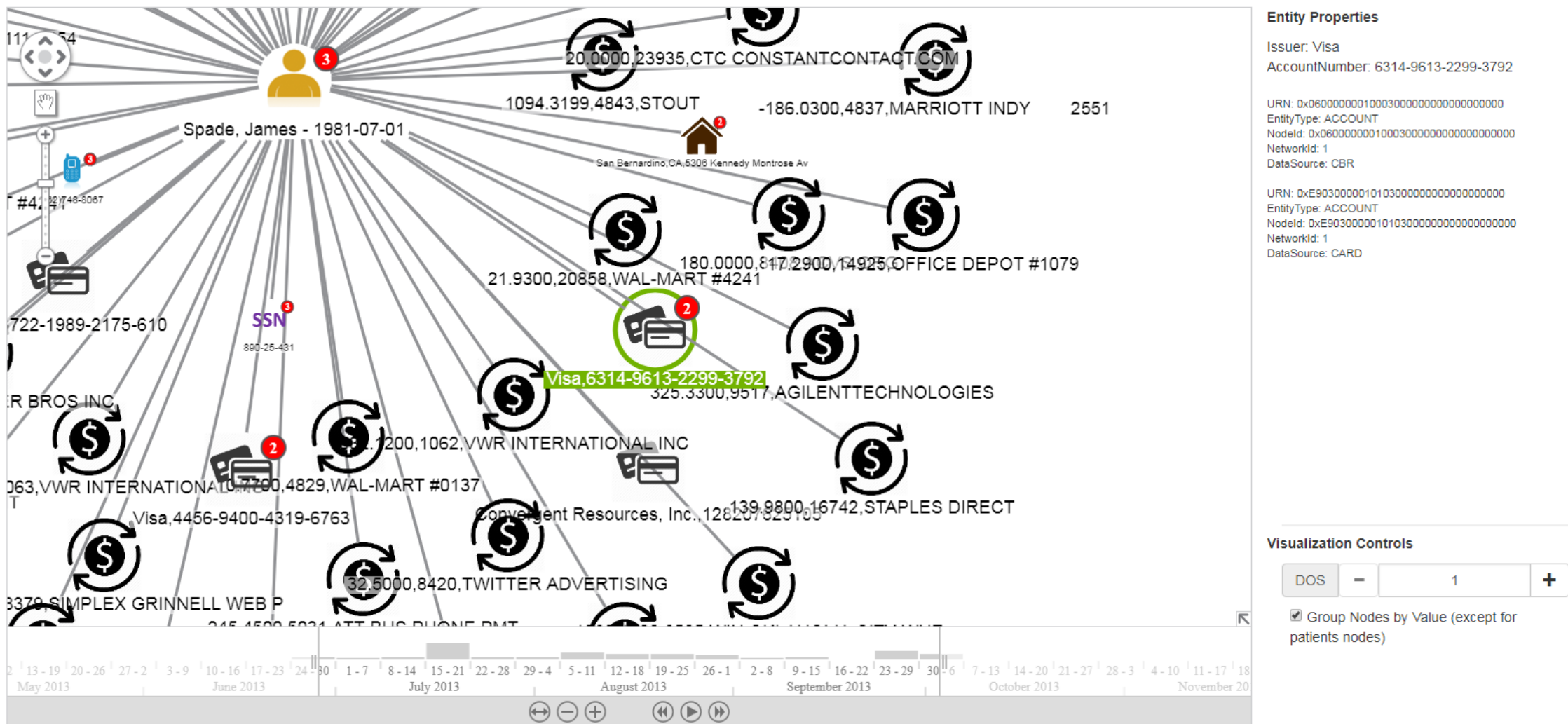


# Transaction Detail and Metadata (1 of 2)



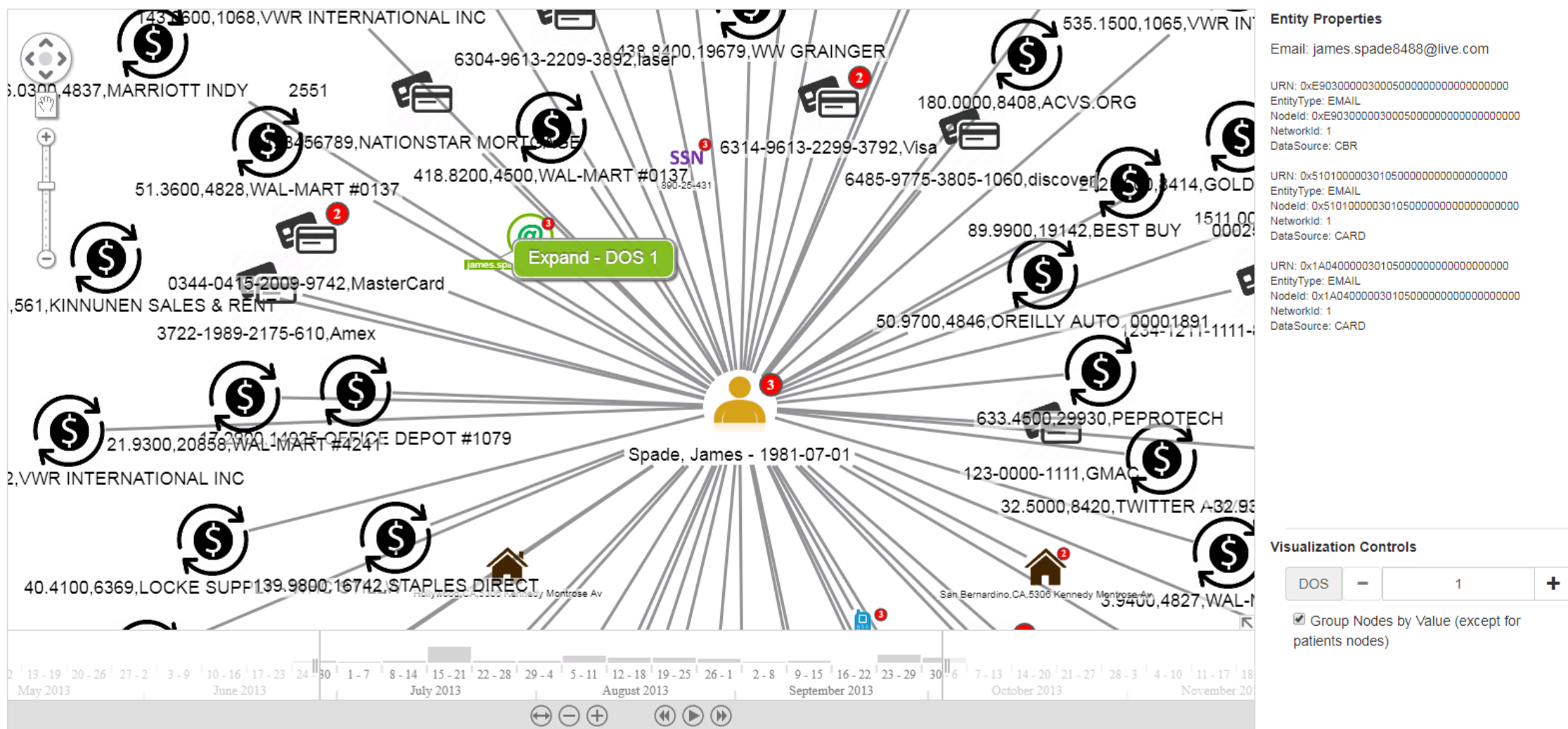


# Transaction Detail and Metadata (2 of 2)





# Expanding E-mail Data to View Customer Relationships





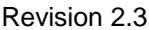
## Show Relationships with Other Customers








# Customer Relationships: Applying a Timeframe Filter





# 360 Customer View: Summary

Virtual Master Customer Index by  SmartData Fabric™

Customer 360 View

SPADE, JAMES

MPI ID: 470

Dashboard

Disputed  
Transactions


Transactions


Credit History

Credit Score


SPADE, JAMES

Contact Information

 1981-07-01 00:00:00.0

 5306 KENNEDY MONTROSE AV SAN BERNARDINO CA 92302

 JAMES.SPADE8488@LIVE.COM

 (262)748-8067

CREDIT SCORE

SCORE

750

Debt

# of Account	Current Debt	Past Due	Credit Limit	Debt Ratio (%)	% Debt Past Due
9	38789.02	34988.06	494939.00	7.837131444481036	90.20093830676825

Name Alias

Other Names

James Spade

James Spadw

Other Phones

Phone Number

(262)748-8067

Other Address

Other Address

5306 Kennedy Montrose Av, San Bernardino, CA, 92302

Credit Profile

ACCOUNTNUMBER	Number Of Payments	Paid In Full	Partial	Missed Payment	Average Payment
0344-0415-2009-9742	14	1	10	3	103.55181818181818
123-0000-1111	46	46	0	0	295.0
123-121-1111	16	1	15	0	275.184375
1234-1211-1111-8454	46	33	13	0	675.0506521739131
123456789	24	18	6	0	1784.6133333333335
128207625105	53	2	51	0	72.58490566037736





# 360 Customer View: Disputed Transactions

Virtual Master Customer Index by



SmartData Fabric™

Customer 360 View

SPADE, JAMES

- Dashboard
- Disputed Transactions
- Transactions
- Credit History
- Credit Score

Disputed Transactions									
Merchant	Trans Date	Amount	Status	IsDisputed	Date Posted	Used by	Street	merchantzip	
OREILLY AUTO 00001891	2013-07-17 00:00:00.0	50.9700	Approved	1	2013-07-18	James	null	85385	
OREILLY AUTO 00001891	2013-07-11 00:00:00.0	14.9700	Approved	1	2013-07-12	James	null	85385	
PEPROTECH	2013-09-30 00:00:00.0	633.4500	Approved	1	2013-10-02	James	null	80001	
Potential Fraud									
None									



# 360 Customer View: Transactions

Virtual Master Customer Index by



SmartData Fabric™

Customer 360 View

SPADE, JAMES

Dashboard

Disputed  
Transactions

Transactions

Credit History

Credit Score

## Transaction History

ID	Trans Date	Date Posted	Merchant	Account	Amount	IsDisputed
11945	2013-06-28 00:00:00.0	2013-07-01	SOUTHWES 5262140893794	4456-9400-4319-6763	363.2000	0
11945	2013-06-28 00:00:00.0	2013-07-01	SOUTHWES 5262140893794	6304-9613-2209-3892	363.2000	0
11945	2013-06-28 00:00:00.0	2013-07-01	SOUTHWES 5262140893794	0344-0415-2009-9742	363.2000	0
6369	2013-06-29 00:00:00.0	2013-07-02	LOCKE SUPPLY - WHC STILLW	4456-9400-4319-6763	40.4100	0
6369	2013-06-29 00:00:00.0	2013-07-02	LOCKE SUPPLY - WHC STILLW	6304-9613-2209-3892	40.4100	0
6369	2013-06-29 00:00:00.0	2013-07-02	LOCKE SUPPLY - WHC STILLW	0344-0415-2009-9742	40.4100	0
4837	2013-07-02 00:00:00.0	2013-07-03	MARRIOTT INDY 2551	4456-9400-4319-6763	-186.0300	0
4837	2013-07-02 00:00:00.0	2013-07-03	MARRIOTT INDY 2551	6304-9613-2209-3892	-186.0300	0
4837	2013-07-02 00:00:00.0	2013-07-03	MARRIOTT INDY 2551	0344-0415-2009-9742	-186.0300	0
4847	2013-07-11 00:00:00.0	2013-07-12	O'REILLY AUTO 00001891	4456-9400-4319-6763	14.9700	1
4847	2013-07-11 00:00:00.0	2013-07-12	O'REILLY AUTO 00001891	6304-9613-2209-3892	14.9700	1
4847	2013-07-11 00:00:00.0	2013-07-12	O'REILLY AUTO 00001891	0344-0415-2009-9742	14.9700	1
4848	2013-07-12 00:00:00.0	2013-07-15	O'REILLY AUTO 00001891	4456-9400-4319-6763	270.9800	0
4848	2013-07-12 00:00:00.0	2013-07-15	O'REILLY AUTO 00001891	6304-9613-2209-3892	270.9800	0
4848	2013-07-12 00:00:00.0	2013-07-15	O'REILLY AUTO 00001891	0344-0415-2009-9742	270.9800	0
561	2013-07-17 00:00:00.0	2013-07-18	KINNUNEN SALES & RENT	4456-9400-4319-6763	408.8000	0
561	2013-07-17 00:00:00.0	2013-07-18	KINNUNEN SALES & RENT	6304-9613-2209-3892	408.8000	0
561	2013-07-17 00:00:00.0	2013-07-18	KINNUNEN SALES & RENT	0344-0415-2009-9742	408.8000	0
4827	2013-07-17 00:00:00.0	2013-07-18	WAL-MART #0137	4456-9400-4319-6763	3.9400	0
4827	2013-07-17 00:00:00.0	2013-07-18	WAL-MART #0137	6304-9613-2209-3892	3.9400	0
4827	2013-07-17 00:00:00.0	2013-07-18	WAL-MART #0137	0344-0415-2009-9742	3.9400	0
4828	2013-07-17 00:00:00.0	2013-07-18	WAL-MART #0137	4456-9400-4319-6763	51.3600	0
4828	2013-07-17 00:00:00.0	2013-07-18	WAL-MART #0137	6304-9613-2209-3892	51.3600	0
4828	2013-07-17 00:00:00.0	2013-07-18	WAL-MART #0137	0344-0415-2009-9742	51.3600	0
4846	2013-07-17 00:00:00.0	2013-07-18	O'REILLY AUTO 00001891	4456-9400-4319-6763	50.9700	1
4846	2013-07-17 00:00:00.0	2013-07-18	O'REILLY AUTO 00001891	6304-9613-2209-3892	50.9700	1
4846	2013-07-17 00:00:00.0	2013-07-18	O'REILLY AUTO 00001891	0344-0415-2009-9742	50.9700	1
23935	2013-07-17 00:00:00.0	2013-07-18	CTC CONSTANTCONTACT.COM	4456-9400-4319-6763	20.0000	0
23935	2013-07-17 00:00:00.0	2013-07-18	CTC CONSTANTCONTACT.COM	6304-9613-2209-3892	20.0000	0
23935	2013-07-17 00:00:00.0	2013-07-18	CTC CONSTANTCONTACT.COM	0344-0415-2009-9742	20.0000	0
4836	2013-07-18 00:00:00.0	2013-07-19	MARRIOTT INDY 2551	4456-9400-4319-6763	1389.9600	0
4836	2013-07-18 00:00:00.0	2013-07-19	MARRIOTT INDY 2551	6304-9613-2209-3892	1389.9600	0
4836	2013-07-18 00:00:00.0	2013-07-19	MARRIOTT INDY 2551	0344-0415-2009-9742	1389.9600	0
4843	2013-07-18 00:00:00.0	2013-07-22	STOUT	4456-9400-4319-6763	1094.3199	0
4843	2013-07-18 00:00:00.0	2013-07-22	STOUT	6304-9613-2209-3892	1094.3199	0
4843	2013-07-18 00:00:00.0	2013-07-22	STOUT	0344-0415-2009-9742	1094.3199	0
19679	2013-07-19 00:00:00.0	2013-07-22	VW GRAINGER	4456-9400-4319-6763	438.8400	0
19679	2013-07-19 00:00:00.0	2013-07-22	VW GRAINGER	6304-9613-2209-3892	438.8400	0
19679	2013-07-19 00:00:00.0	2013-07-22	VW GRAINGER	0344-0415-2009-9742	438.8400	0
5031	2013-07-20 00:00:00.0	2013-07-22	ATT BUS PHONE PMT	4456-9400-4319-6763	245.4500	0
5031	2013-07-20 00:00:00.0	2013-07-22	ATT BUS PHONE PMT	6304-9613-2209-3892	245.4500	0
5031	2013-07-20 00:00:00.0	2013-07-22	ATT BUS PHONE PMT	0344-0415-2009-9742	245.4500	0
19142	2013-07-23 00:00:00.0	2013-07-24	BEST BUY 00025031	4456-9400-4319-6763	89.9900	0
19142	2013-07-23 00:00:00.0	2013-07-24	BEST BUY 00025031	6304-9613-2209-3892	89.9900	0
19142	2013-07-23 00:00:00.0	2013-07-24	BEST BUY 00025031	0344-0415-2009-9742	89.9900	0
8413	2013-08-02 00:00:00.0	2013-08-05	JULES BOREL & COMPANY	4456-9400-4319-6763	940.8700	0
8413	2013-08-02 00:00:00.0	2013-08-05	JULES BOREL & COMPANY	6304-9613-2209-3892	940.8700	0



# 360 Customer View: Credit History

Virtual Master Customer Index by



SmartData Fabric™

Customer 360 View

SPADE, JAMES

Dashboard

Disputed  
Transactions

Transactions

Credit History

Credit Score

## Credit History

Report Date	Type	Account Number	Creditor	Amount Due	Payment Date	Payment Received	Payment Status
2013-08-31 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	82.23	2013-07-31 00:00:00.0	6.17	Partial Pay
2013-09-30 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	874.04	2013-08-31 00:00:00.0	29.92	Partial Pay
2013-10-30 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	1137.88	2013-09-30 00:00:00.0	224.98	Partial Pay
2013-11-30 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	1135.84	2013-10-31 00:00:00.0	3.00	Partial Pay
2013-12-30 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	1132.84	null	null	No Payment
2014-01-31 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	1132.84	null	null	No Payment
2016-06-30 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	150.00	null	150.00	Pay as agreed
2016-07-31 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	700.00	2016-07-10 00:00:00.0	150.00	Partial Pay
2016-08-31 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	2700.00	2016-08-10 00:00:00.0	150.00	Partial Pay
2016-09-30 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	5000.00	2016-09-10 00:00:00.0	150.00	Partial Pay
2016-10-31 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	7500.00	2016-10-10 00:00:00.0	150.00	Partial Pay
2016-11-30 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	9500.00	null	null	No Payment
2016-12-31 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	15000.00	2016-12-10 00:00:00.0	100.00	Partial Pay
2017-01-31 00:00:00.0	Revolving	0344-0415-2009-9742	MasterCard	19525.00	2017-01-10 00:00:00.0	25.00	Partial Pay
2013-10-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2013-10-17 00:00:00.0	295.00	Pay as agreed
2013-11-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2013-11-17 00:00:00.0	295.00	Pay as agreed
2013-12-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2013-12-17 00:00:00.0	295.00	Pay as agreed
2014-01-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-01-17 00:00:00.0	295.00	Pay as agreed
2014-02-28 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-02-17 00:00:00.0	295.00	Pay as agreed
2014-03-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-03-17 00:00:00.0	295.00	Pay as agreed
2014-04-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-04-17 00:00:00.0	295.00	Pay as agreed
2014-05-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-05-17 00:00:00.0	295.00	Pay as agreed
2014-06-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-06-17 00:00:00.0	295.00	Pay as agreed
2014-07-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-07-17 00:00:00.0	295.00	Pay as agreed
2014-08-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-08-17 00:00:00.0	295.00	Pay as agreed
2014-09-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-09-17 00:00:00.0	295.00	Pay as agreed
2014-10-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-10-17 00:00:00.0	295.00	Pay as agreed
2014-11-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-11-17 00:00:00.0	295.00	Pay as agreed
2014-12-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2014-12-17 00:00:00.0	295.00	Pay as agreed
2015-01-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-01-17 00:00:00.0	295.00	Pay as agreed
2015-02-28 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-02-17 00:00:00.0	295.00	Pay as agreed
2015-03-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-03-17 00:00:00.0	295.00	Pay as agreed
2015-04-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-04-17 00:00:00.0	295.00	Pay as agreed
2015-05-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-05-17 00:00:00.0	295.00	Pay as agreed
2015-06-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-06-17 00:00:00.0	295.00	Pay as agreed
2015-07-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-07-17 00:00:00.0	295.00	Pay as agreed
2015-08-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-08-17 00:00:00.0	295.00	Pay as agreed
2015-09-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-09-17 00:00:00.0	295.00	Pay as agreed
2015-10-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-10-17 00:00:00.0	295.00	Pay as agreed
2015-11-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-11-17 00:00:00.0	295.00	Pay as agreed
2015-12-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2015-12-17 00:00:00.0	295.00	Pay as agreed
2016-01-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2016-01-17 00:00:00.0	295.00	Pay as agreed
2016-02-29 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2016-02-17 00:00:00.0	295.00	Pay as agreed
2016-03-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2016-03-17 00:00:00.0	295.00	Pay as agreed
2016-04-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2016-04-17 00:00:00.0	295.00	Pay as agreed
2016-05-31 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2016-05-17 00:00:00.0	295.00	Pay as agreed
2016-06-30 00:00:00.0	Automobile	123-0000-1111	GMAC	295.00	2016-06-17 00:00:00.0	295.00	Pay as agreed



# 360 Customer View: Credit Score

Virtual Master Customer Index by  **SmartData Fabric™**

Customer 360 View

SPADE, JAMES

Dashboard

Disputed  
Transactions

Transactions

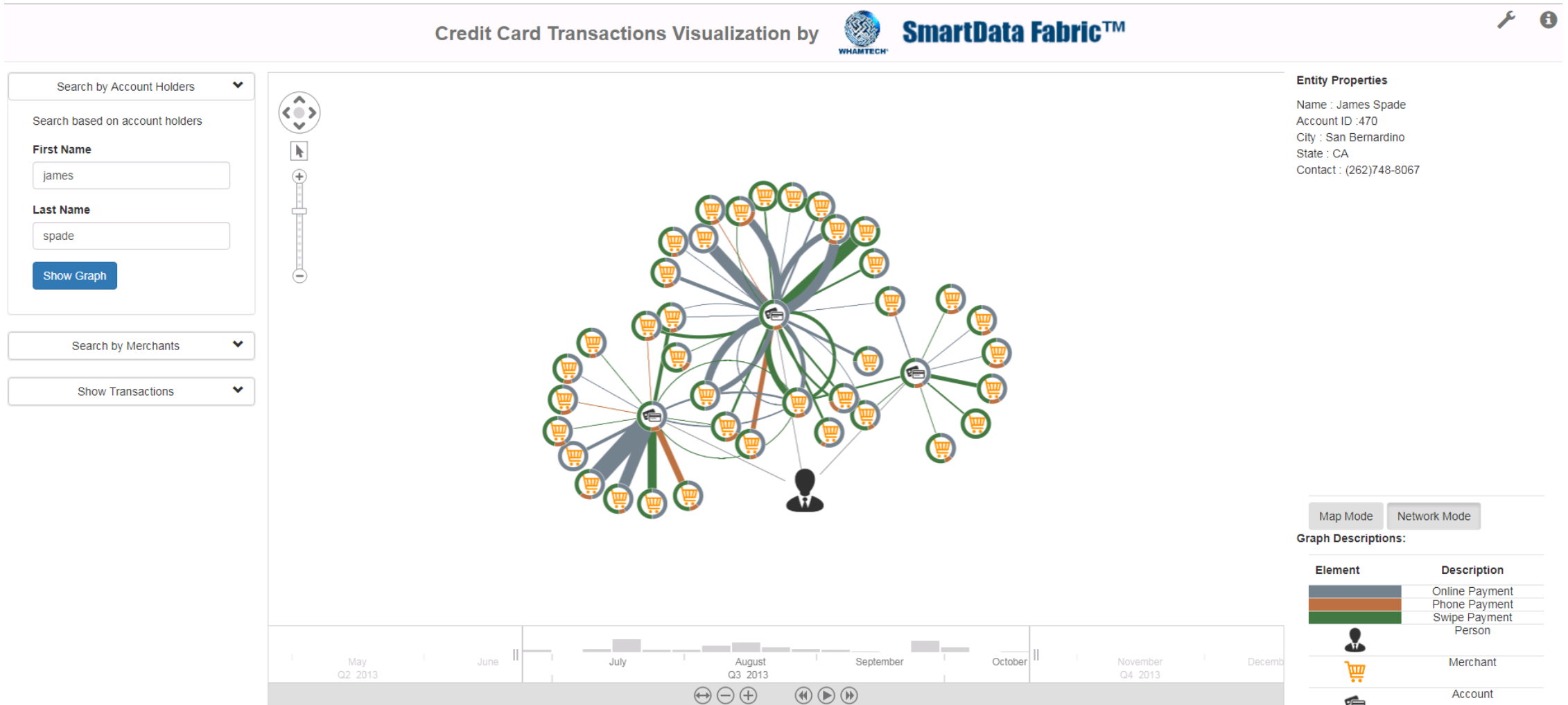
Credit History

Credit Score

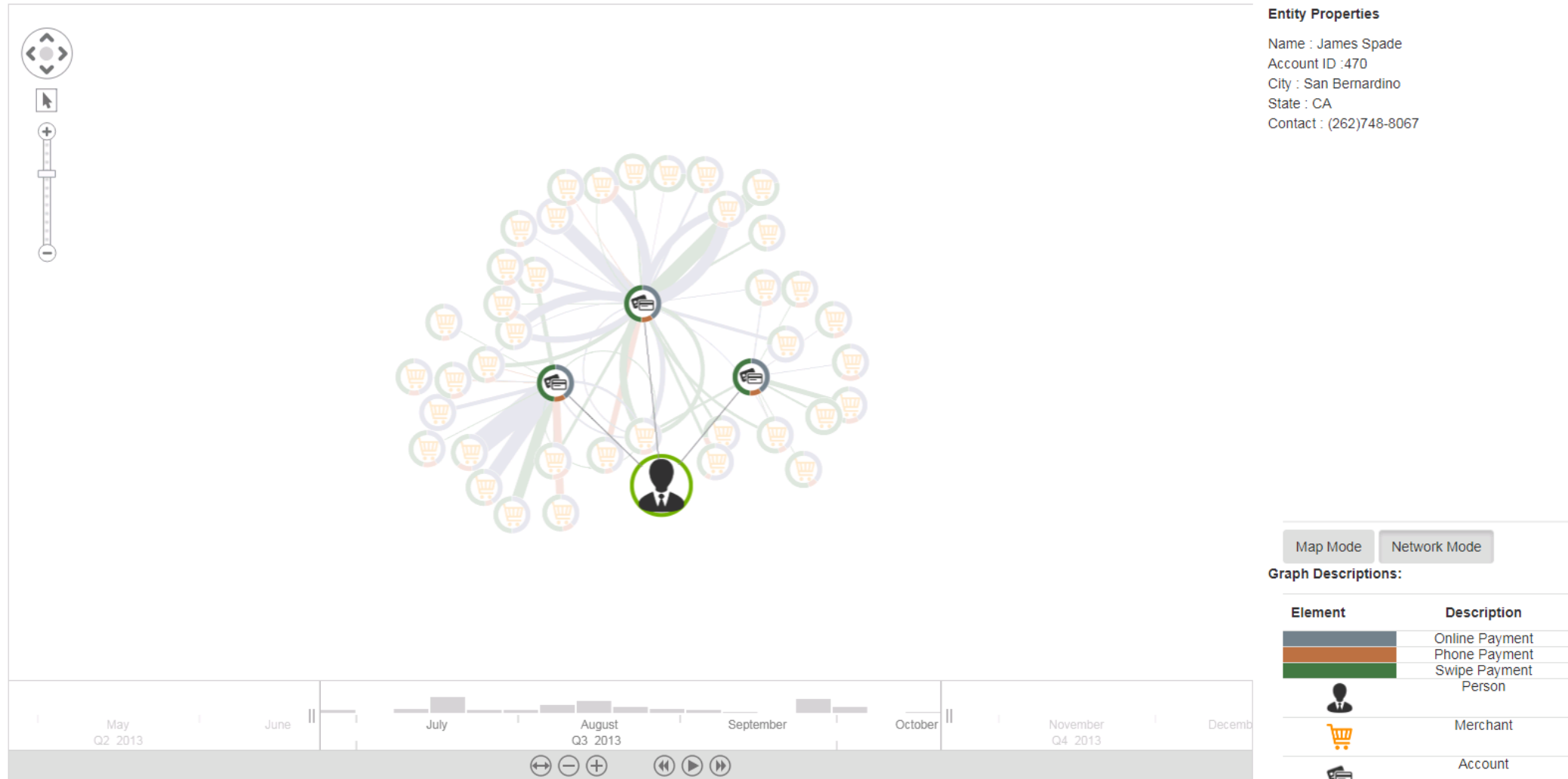
Credit Score

PERIOD	SCORE
2013-06-30 00:00:00.0	650
2014-06-30 00:00:00.0	680
2015-06-30 00:00:00.0	670
2016-06-30 00:00:00.0	720
2017-06-30 00:00:00.0	750

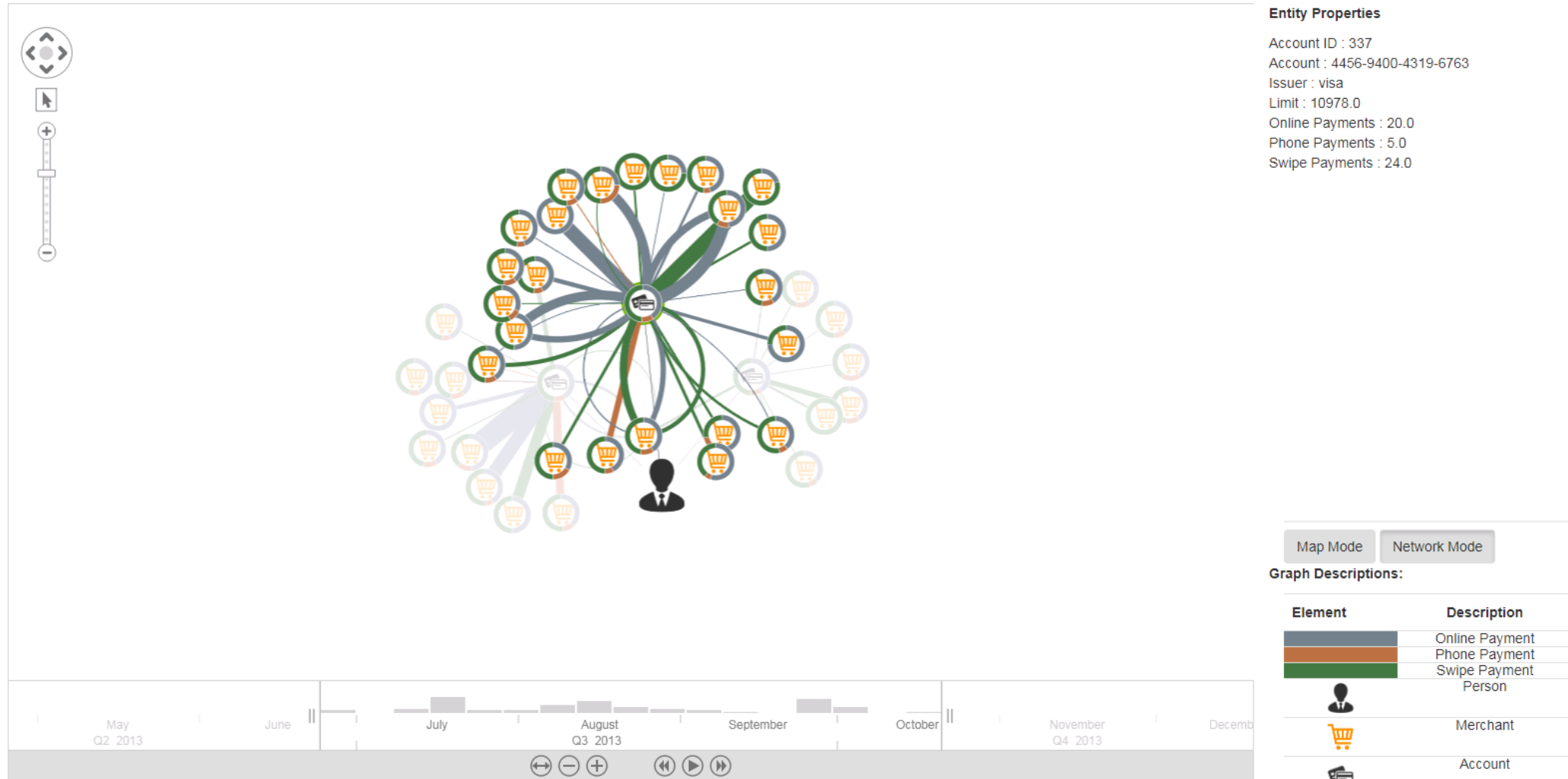
# Transaction View Based on Customer and Merchants



# Discovering Customer Accounts



# Highlighting a Customer Account





# 360 Merchant View

Credit Card Transactions Visualization by  SmartData Fabric™



Search by Account Holders ▼

Search by Merchants ▼

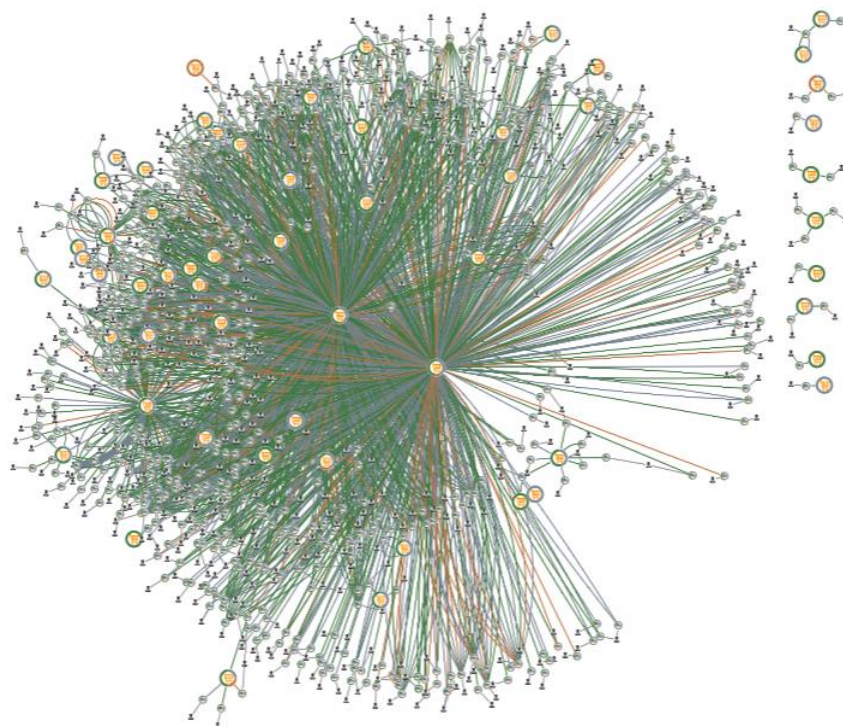
Search based on Merchant.

Merchant Name

Wal-mart

Show Merchant

Show Transactions ▼




## Entity Properties

Account ID : 337  
Account : 4456-9400-4319-6763  
Issuer : visa  
Limit : 10978.0  
Online Payments : 20.0  
Phone Payments : 5.0  
Swipe Payments : 24.0

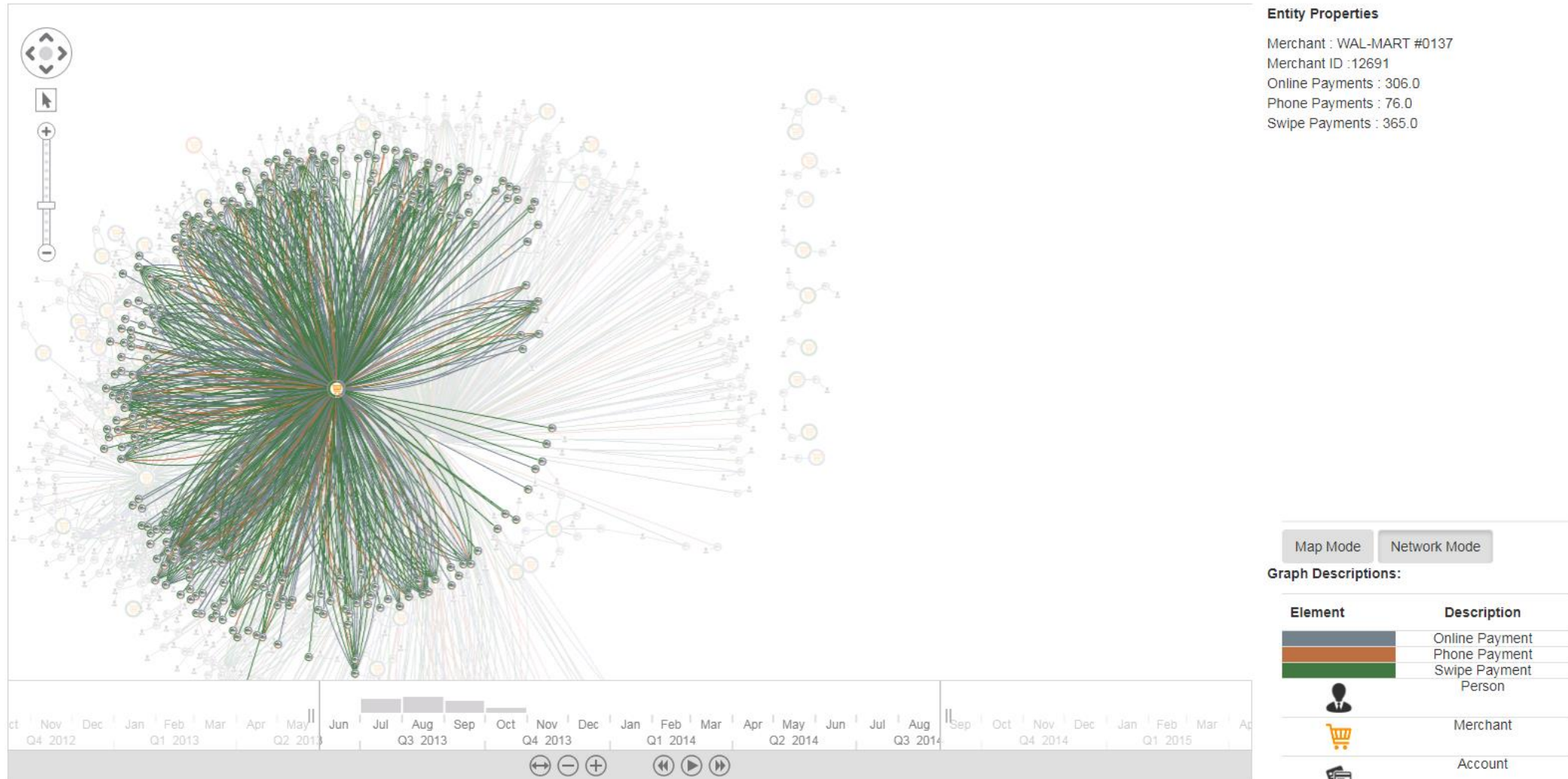
Map Mode Network Mode

## Graph Descriptions:

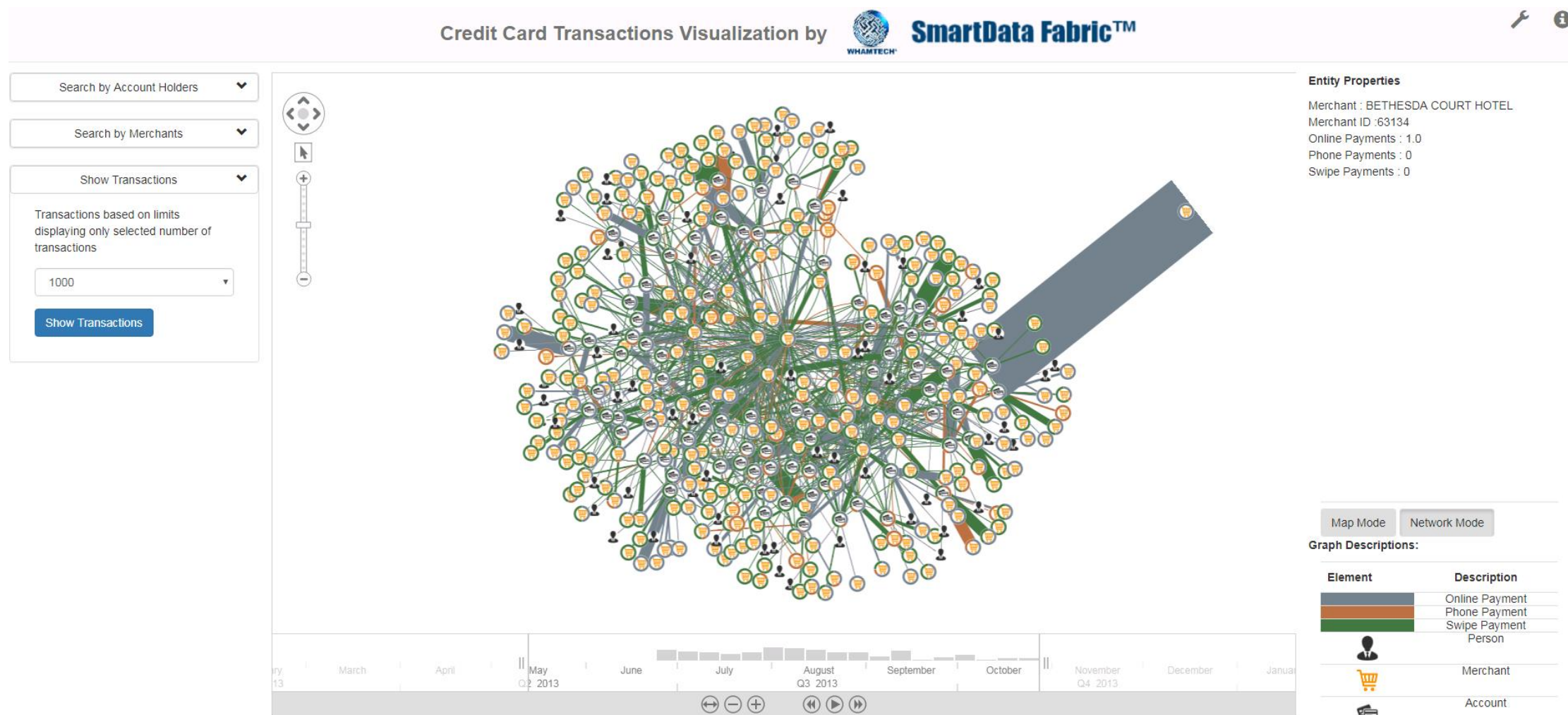
Element	Description
	Online Payment
	Phone Payment
	Swipe Payment
	Person
	Merchant
	Account



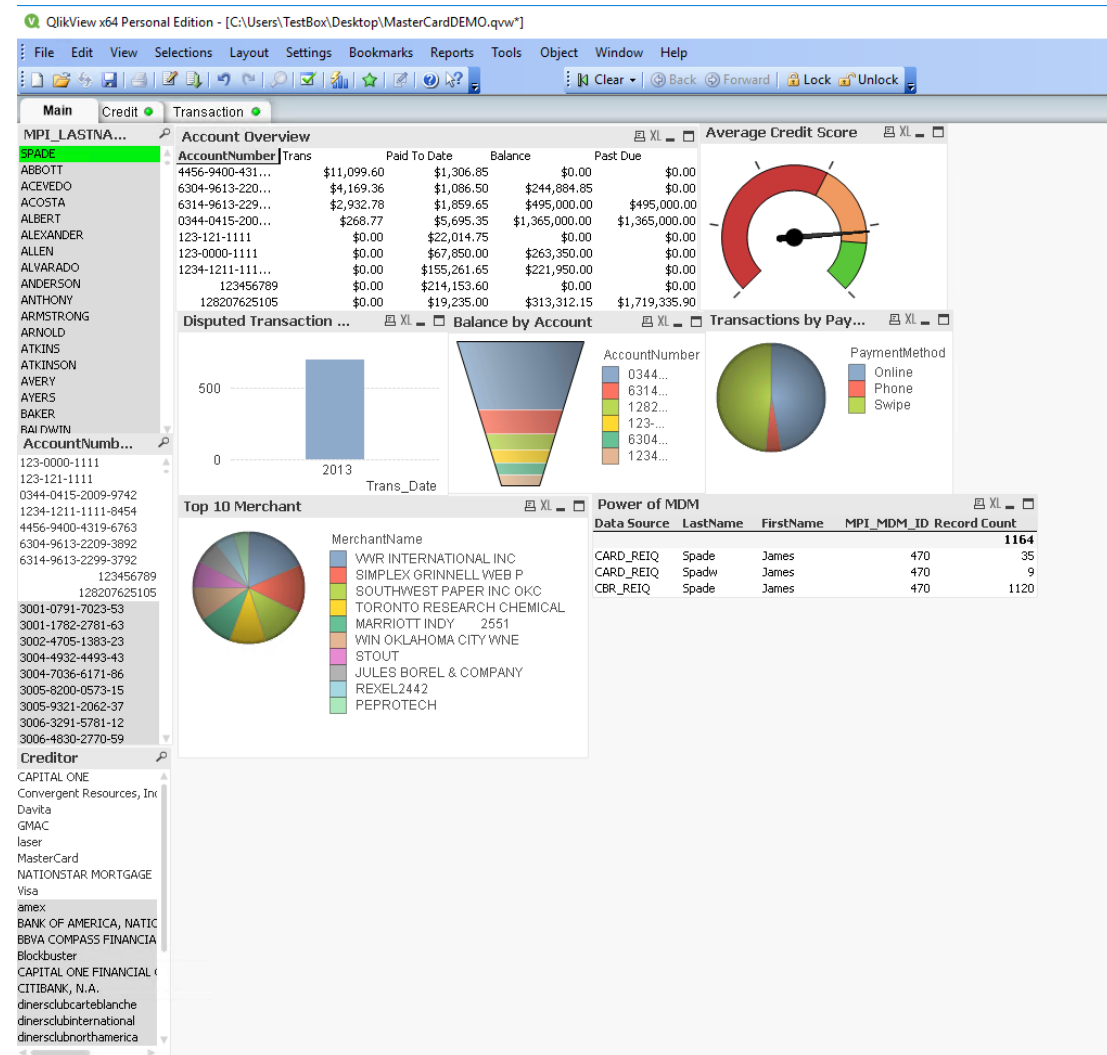
# 360 Merchant View with Filter Applied



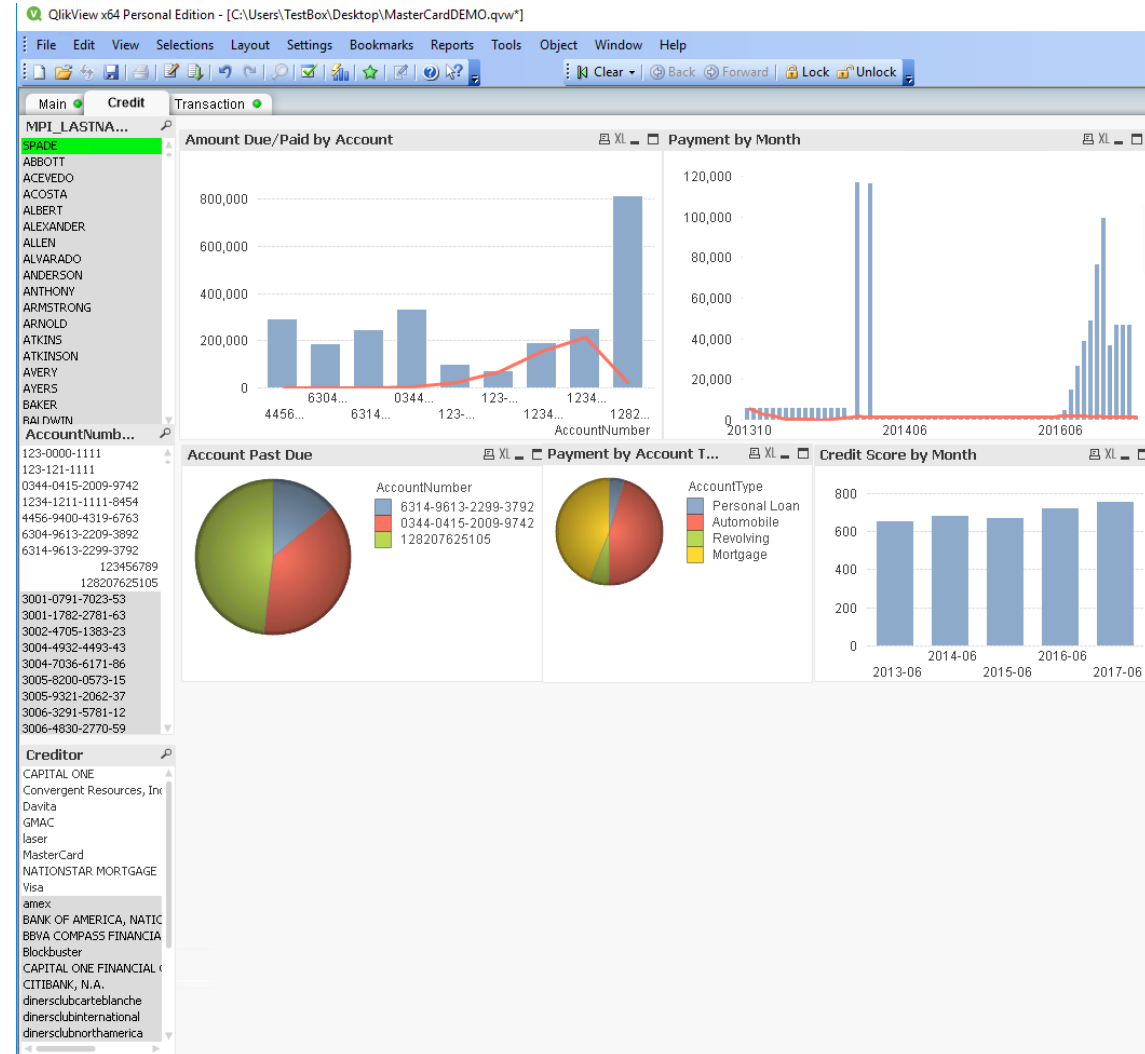
# Transaction View with Link Width Based on Amount



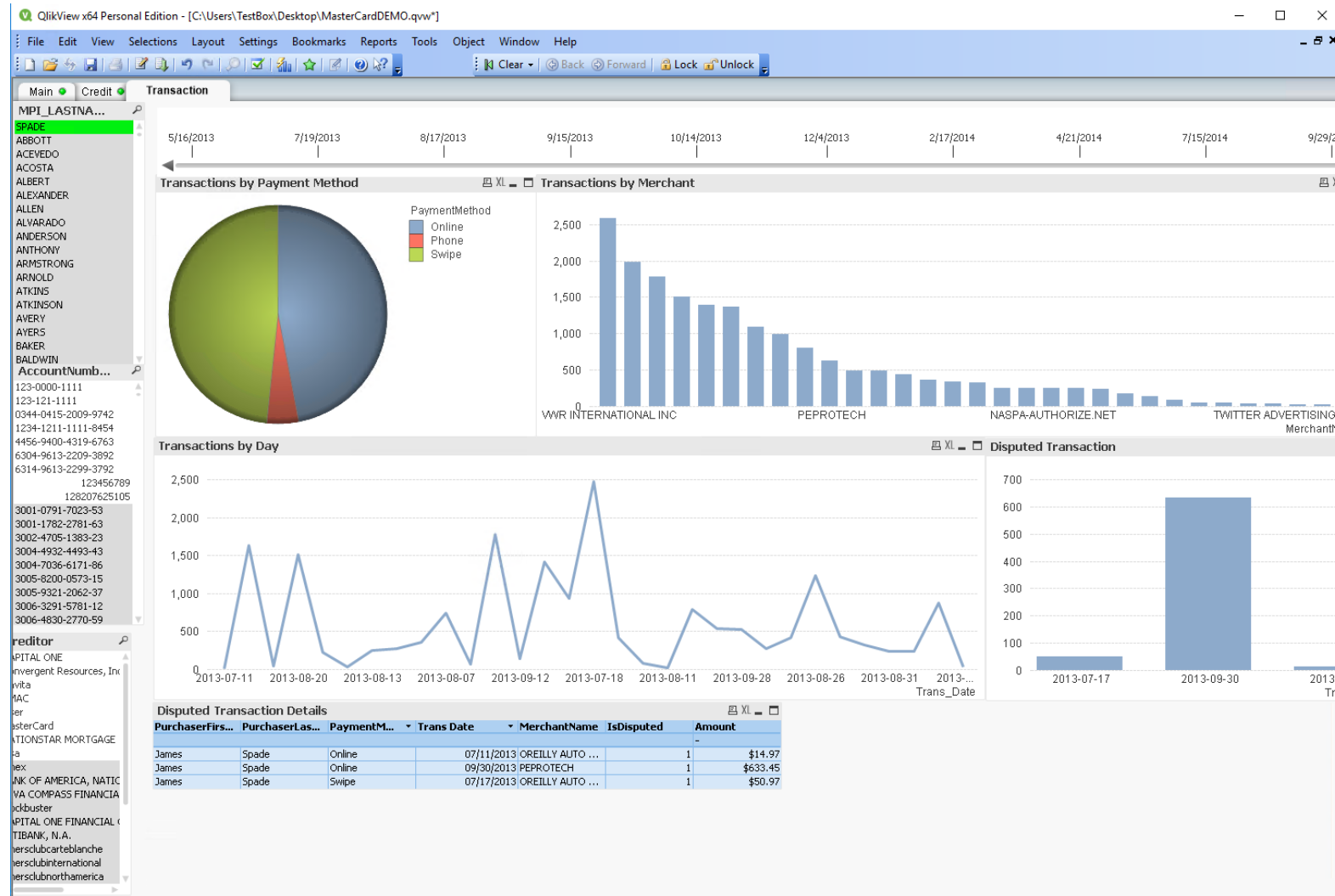
# QlikView Report (1 of 3)



# QlikView Report (2 of 3)



# QlikView Report (3 of 3)





# The End