Synaptein Capabilities Statement

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Synaptein Corporate Snapshot

- 7 year old firm, US Government since 2012
- Dun & Bradstreet: 96% Customer Satisfaction

- GSA IT-70
- Small Business Type: 8(a)/SWAM, MBE,DBE,CRMDC
- Cage Code: 7HDU5
- DUNS#: 003870400

Commercial Clients:
- Bank of America
- Fujitsu
- Collabera
- Lancesoft
- Hexaware
- Prutech
- Talamadge Group
- Riskspotlight
- Artech

Federal Clients:
- FAA
- SEC
- DOJ
- USDA
- DHA
- HHS
- FDA

IT Staffing Clients:
- State of Michigan
- State of Iowa
- State of Virginia
- State of Delaware
- State of North Carolina

State and Local Clients:
- Illinois Department of Education
- Illinois Criminal Justice
- Kansas Transportation
- Ohio Education Board

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Capabilities

Information Management & Data Analytics

- Business intelligence and data analytics
- Enterprise information services
- Data strategy, master data management, governance

Critical Systems Support & Optimization

- Performance optimization
- SQA/IV&V Testing
- Application development

Enterprise Transformation & Optimization

- Management consulting
- Program management
- Cloud computing
- Service Oriented Architecture
- Data asset discovery

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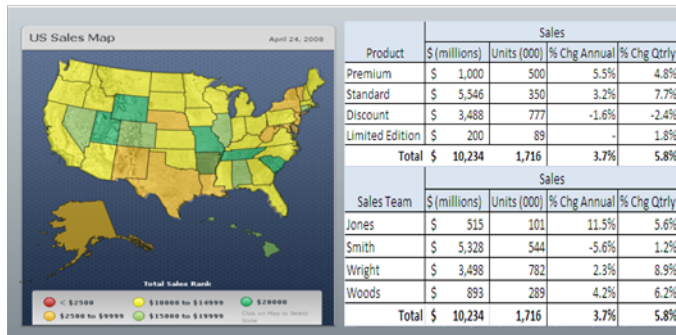
Information Management & Data Analytics

Enterprise Reporting / Dashboard & Scorecards – Allow greater business performance management across organizational, functional, and project/product dimensions via Key Performance & Risk Indicators (KPIs/KRIs) at an aggregate, cross-enterprise level by delivering customizable trend reports and statistical visualizations with configurable thresholds and control limits.

User Needs Assessment – Understanding the complex mix of reporting and analysis goals across a wide variety of business user types is key to making a business intelligence initiative successful.
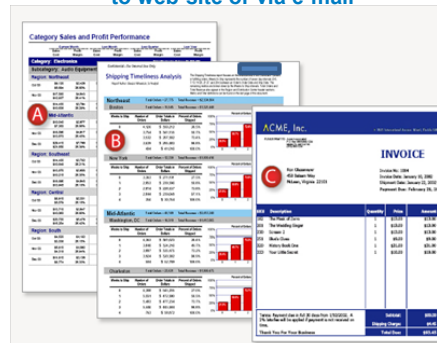
Analytics and Mining – Synaptein's data analysts have worked with large, complex data sets across financial, insurance, health-related, and logistics subject areas, to name a few.

Data Warehouse/Data Marts/Operational Data Stores (ODS) – Organizations often face the challenge of needing to physically pull large set of data together across multiple source systems in support of reporting, analytic, and performance management needs.

Interactive, intuitive dashboards for better performance management

Analysis Across multiple dimensions: Product, Location, Resource, Time etc.

Pre-Canned, printable reports delivered to web-site or via e-mail

Software Tool Selection Services

Identify the right tools for the job.

Tool Selection Process

❑ *Understand and Document Consumer Requirements*

    ❑ Functional Requirements

    ❑ Reporting Requirements

    ❑ Performance Requirements

    ❑ Database Requirements

    ❑ Operations and Maintenance Requirements

    ❑ Security and Privacy Requirements

❑ *Overall Tool Comparison and Analysis*

    ❑ Map Capabilities to Requirements

    ❑ Pricing Analysis

    ❑ Rate Tools using our Scoring Algorithm

❑ *Tool Recommendation*

    ❑ Best Fit for Client

Score	Functionality
3	Exceptional capabilities.
2	Very good capabilities.
1	Limited capabilities, difficult to do, or may require a work around.
0	Minimal capabilities out of the box. The software may require customization or coding to accomplish.

Information Delivery	Description of Function	Business Objects XI 3.1	Oracle OBIEE 10.1.3.4.1	Pentaho	Microsoft SQL Server
Time-based schedules	Users can schedule reports to run on periodic basis	2	2	2	2
Report bursting	One report can be run but then individual pages are sent to each user. Ideally the query should run once and then be parsed	2	1	1	2
My Portal	With a dedicated BI portal, can users customize their own layout	2	2	0	1
Disconnected access	While business query authoring and report consumption should be web-based, consider if disconnected access is required	2	2	0	0
Display of business meta data to users	Users would like to see business definition of a term, with data lineage. This should be available to all report consumers, not just report authors, and ideally displayed via a tooltip	3	1	0	1
Collaboration Capabilities (report ranking, comments)	While viewing a report can users add notes either within a report or attached to a report	1	n/a	0	1
Gadgets or Widgets	Similar to Google Gadgets, BI gadgets allow a report or dashboard to be displayed and refreshed on a desktop via a single mouse click	2	n/a	0	n/a
Outline view/Table of Contents	While viewing a report, can users expand or collapse subtotals to view an outline of the report content	2	0	1	0
	Score:	22	13	10	14

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Critical Systems Support & Optimization

Information and CyberSecurity

Information security encompasses every function, each business process, every user, and every infrastructure component in an enterprise. Managing information security means striking a balance between complete and secure access to information and rapidly deployed and effectively functioning business applications..

SQA/IV&V Testing

Software Quality Assurance (SQA) and Independent Verification and Validation (IV&V) is all about assessing and managing risk. Synaptein has extensive experience conducting independent Validation and Verification of vendor / client implementations, as well as evaluating and refining client Quality Assurance (QA) processes.

Application Development

Synaptein has in-depth experience with Application Development using a wide array of current and legacy technologies such as: Microsoft.Net and C#, Java/J2EE, Perl, Unix Scripting, COBOL, JCL, Python, WSDL/SOAP, Guidewire, XL, SQL, SAS Oracle Forms /APEX, etc
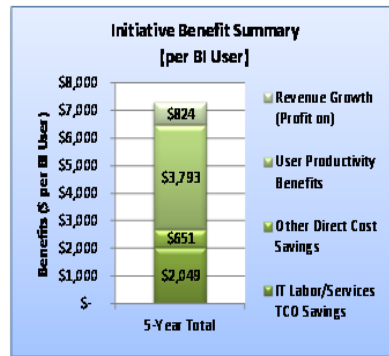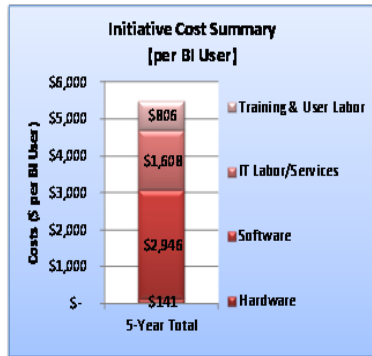
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Business Case Consultation

These tables and graphs summarize the costs and benefits and calculates ROI, NPV, IRR, and payback period. The results are shown average per PC and the total for the organization.

	Per BI User	Organization Total ($000)
Costs (5-Yr)	$ 5,500	$ 1,355
Benefits (5-Yr)	$ 7,318	$ 1,803
Net Benefits	$ 1,818	$ 448
NPV (Net Present Value)	$ 599	$ 148
ROI (Return on Investment) - [Total Net Benefits / Total Costs]	33%	
IRR (Internal Rate of Return)	17%	
Payback Period	38 Months	
Number of BI Users	246	

Total Costs Vs Benefits

Costs (5-Yr): $5,500
Benefits (5-Yr): $7,318
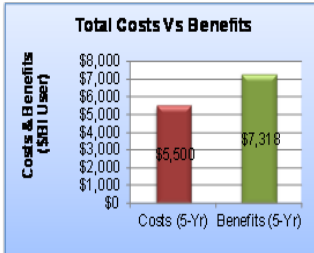
	Costs & Benefits ($ per PC)			Costs & Benefits ($000)		
	One-Time	Annual On-Going	5-Year Total	One-Time	Annual On-Going	5-Year Total
Costs	$ 3,223	$ 456	$ 5,500	$ 794	$ 112	$ 1,355
Benefits	$ -	$ 1,464	$ 7,318	$ -	$ 361	$ 1,803

Initiative Cost Summary [per BI User]

- Training & User Labor: $806
- IT Labor/Services: $1,608
- Software: $2,946
- Hardware: $141

Initiative Benefit Summary [per BI User]

- Revenue Growth (Profit on): $824
- User Productivity Benefits: $3,793
- Other Direct Cost Savings: $651
- IT Labor/Services TCO Savings: $2,049

The table below summarizes the extent of the organization's adoption of BI capabilities. The simulated (to-be) adoption is based on the scope/scale of selected initiatives enabling increased capability adoption. All costs in this model are based on scope/scale of initiatives selected. All benefits in this model are based on improvements to capability adoption - adoption of more BI capabilities and best practices lead to improved business performance. Details are contained in the "Initiatives" worksheet.

	Current Adoption (As-Is)	Initiative Investment Level	Simulated Adoption (To-Be)
BI Applications			
Marketing / Sales Apps	60%	Moderate	76%
Supply / Operations Apps	25%	Moderate	55%
Financial Apps	65%	Major	93%
Other / General Mgmt Apps	21%	Moderate	53%
BI Applications	47%		73%
Source System Inclusion / Integration			
Marketing / Sales Data Integration	47%	Moderate	68%
Supply Chain / Ops Data Integration	15%	Moderate	49%
Financial Data Integration	63%	Major	93%
Other Data Integration	15%	Moderate	49%
Source System Inclusion / Integration	46%		75%
Enhance DW Platform			
Architecture Standards & Adherence	25%	Major	85%
Data Management	14%	Major	83%
Data Integration/ETL	50%	Major	90%
Data Warehouse / Data Marts	55%	Major	91%
Development	50%	Major	90%
Enhance DW Platform	39%		88%
Enhance BI Platform			
Reporting	26%	Major	85%
Scorecards / Dashboards	15%	Major	83%
Analytical Tools	15%	Moderate	49%
Workflow and Collaboration	10%	Moderate	46%
Enhance BI Platform	17%		67%

BI Capability Adoption Summary

- Current Adoption (As-Is)
- Simulated Adoption (To-Be)

Adoption %

	Current	Simulated
BI Applications	47%	73%
Source System Inclusion / Integration	46%	75%
Enhance DW Platform	39%	88%
Enhance BI Platform	17%	67%
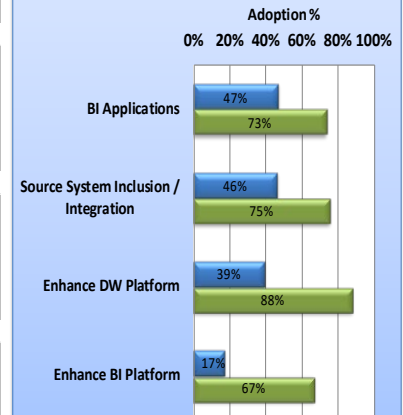
Synaptein's ROI calculation tool can be easily tailored, so there is no need to reinvent the wheel

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Synaptein Services and Experience

Synaptein Services

Financial Services

Healthcare & Life Sciences

Non-Profit

Federal Civilian Agencies

Department of Defense

Commercial

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Synaptein has more than 70 combined years experience in banking and mortgage securitization.

Secondary mortgage market linking loan terms and payment streams to pools, securities through complex loan-to-pool participation, and investor-to-security participation relationships.

Dashbaord views for security, pool, and loan-level across dimensions:

- Price Bucket
- Credit Score
- Delinquency Bucket
- Loan-to-Value
- Debt-to-Income
- USERS Orignator, Issuer, Investor or Insurer

Credit risk, market risk, and interest rate risk analysis driven by default, market price, and interest rate events.

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# Capabilities – Financial Services
Sample Mortgage Risk Analysis Dashboard

B1- Mortgage Loan Data Analysis By Property State

Loan Distribution By State(s) : AK, AL, AR, AZ, CA and 49 more

Select a State To Start Analytics

Map data © OpenStreetMap (and) contributors, CC- BY- SA.
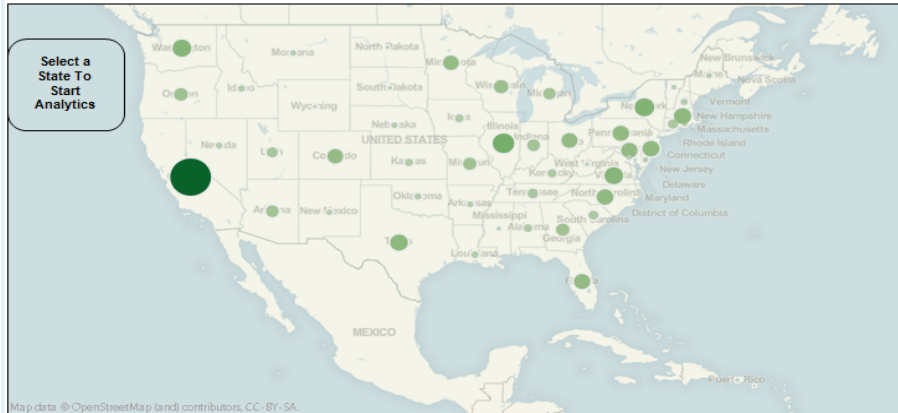
Map based on Longitude (generated) and Latitude (generated). Color shows sum of OriginalLoanAmount. Size shows sum of OriginalLoanAmount. Details are shown for PropertyState. The data is filtered on Area, AreaName and Action (SellerName). The Area filter has multiple members selected. The AreaName filter has multiple members selected. The Action (SellerName) filter specifies a set.
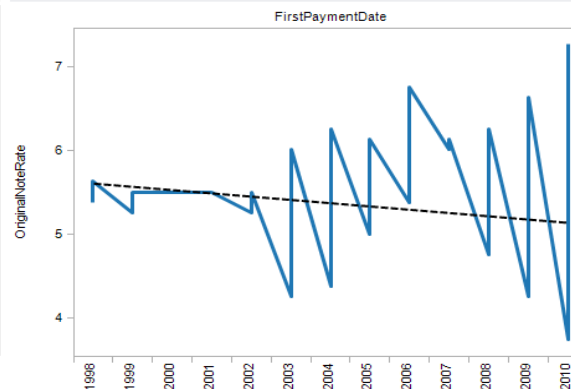
C2 - Credit Score vs. LTV
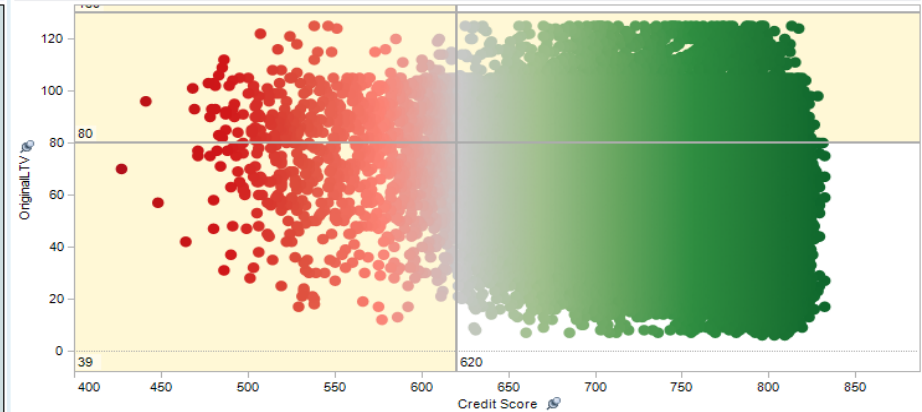
CreditScore vs. OriginalLTV. Color shows details about CreditScore. The data is filtered on Action (PropertyState) and Action (SellerName). The Action (PropertyState) filter specifies a set. The Action (SellerName) filter specifies a set. The view is filtered on CreditScore, which keeps all values.

C3 - Debt to Income (DTI) Distribution
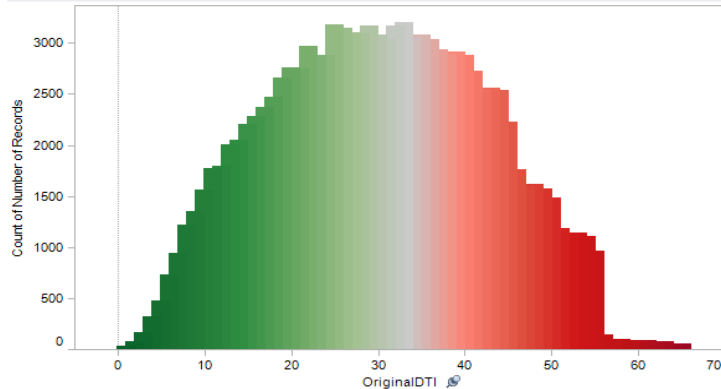
The plot of count of Number of Records for OriginalDTI. Color shows details about OriginalDTI. The data is filtered on Action (PropertyState), Action (CreditScore,OriginalLTV), OriginalDTI and Action (SellerName). The Action (PropertyState) filter specifies a set. The Action (CreditScore,OriginalLTV) filter specifies a set. The OriginalDTI filter excludes Null. The Action (SellerName) filter specifies a set.

C6 - Note-Rate Trend

The trend of OriginalNoteRate for FirstPaymentDate Year. The data is filtered on Action (CreditScore,OriginalLTV), Action (PropertyState) and Action (SellerName). The Action (CreditScore,OriginalLTV) filter specifies a set. The Action (PropertyState) filter specifies a set. The Action (SellerName) filter specifies a set.

C4 - Seller(s) w/ Agg Loan Amounts

66FEDCREDITUNION	OK 74005	$5,588,100
ABBYBANK	WI 54405	$1,431,550
ADIRONDACKBANK	NY 13501	$1,461,975
ADVANTAGEBANK	OH 43725	$508,300
ADVANTISCREDITUNION	OR 97214	$5,611,650
AEROSPACEFEDCREDITUN	CA 902..	$717,000
AFFINITYPLUSFEDCREDI	MN 55107	$13,802,265
AGSTARFINANCIALSERVI	MN 56002	$2,838,690
ALASKAPACIFICBANK	AK 99801	$733,820

C5 - Servicer(s) w. Agg Loan Amounts

66FEDCREDITUNION	OK 74005	$5,588,100
ABBYBANK	WI 54405	$1,431,550
ADIRONDACKBANK	NY 13501	$1,461,975
ADVANTAGEBANK	OH 43725	$508,300
ADVANTISCREDITUNION	OR 97214	$5,611,650
AEROSPACEFEDCREDITUN	CA 902..	$717,000
AFFINITYPLUSFEDCREDI	MN 55107	$13,802,265
AGSTARFINANCIALSERVI	MN 56002	$2,838,690
ALASKAPACIFICBANK	AK 99801	$733,820

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Capabilities – Healthcare Services

Business Intelligence (BI) & Data Warehousing

- BI/Enterprise Reporting/Dashboard/Scorecards/Visualizations
- Data Warehousing, Analytics, and Mining
- Database Administration & Meta-data Management (Business & Technical)
- Master Data Management

Data Asset Discovery & Documentation

- Data Classification, Data Integration, Data Quality and Governance
- Migrate data and systems from GOTS to COTS
- Data management
- Document control

Health IT Competencies
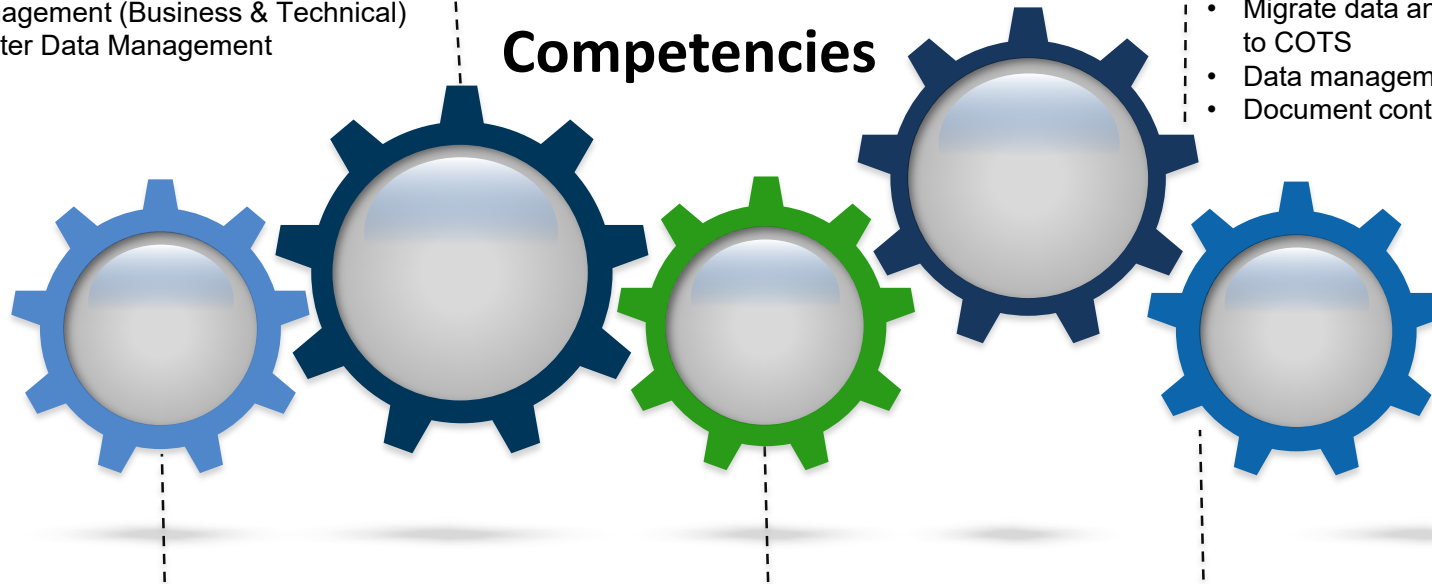
Infrastructure Consolidation

- Hardware and Data Consolidation
- Data Center Consolidation
- Server Virtualization
- Physical Requirements Specification

System Implementation

- System Analysis
- Application Modernization
- Application Support Services
- PaaS

Data & Application Migration

- Custom/Web Application Development/Mobile Application Development
- Legacy Application & Process Modernization
- ERP Solutions

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Past Performance Highlights

Synaptein Representative Clients

Client	Highlights
Fannie Mae	• Partnering with FNMA over 5 years • Synaptein Solution database has experience Managing Hadoop and Spark cluster environments, on bare-metal and container infrastructure, including service allocation and configuration for the cluster, capacity planning, performance tuning, and ongoing monitoring. • We provide SQL tuning services using Oracle tools. • We provided 24/7 on-call support for production systems during on-call rotation.
Riskspotlight (RS)	• Partnering with Riskspotlight for over 7 years • Designed and Developed Riskspotlight OpRisk Portal • Partnered with Riskspotlight for implementation of Empowered software at UBS and LSE • Synaptein provides database, data management, and data analytics services to Riskspotlight. • Synaptein provides administration for Netezza's TwinFin/Mako data warehouse/analytics appliance on the Redhat Linux environment. • We migrated RS databases from on-premise to the AWS platform (e.g., Aurora/Postgres, Dynamo Database).

State of Virginia
State of Iowa
State of Michigan
State of Delaware
State of North Carolina
	• Prime Vendor (Staff Augmentation)
	• Supported Categories
	      Application Analysis and Development
	      Customer / Technical Support
	      Data Management and Governance
	      IT Management Services
	      IT Security
	      Project Management
	      Telecom and Computer Networking

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Synaptein Representative Clients

Client	Highlights
Federal Aviation Administration	• Development of the Purchase Card Processing System • Development of the Unified Contracting System • Developed the EMS 365
Securities and Exchange Commission	• Provided Business Analysis around Credit Default Swaps • Performed Network Analysis • Implemented Business Rules for Funds of Funds • Implemented Business Rules for Affiliate Funds
USDA	• Assisted in the development of the web-based MIDAS system • Integrated MIDAS data with other USDA systems • Performed data analysis for database design for MIDAS • MIDAS supports over 5 million farms across the USA
Department of Justice	• Provided technical resources for the Office of Information Technology (OIT) (IT Analysts, Networking Engineers, Oracle DBAs, and Java Programmers) • Provided business resources for the Executive Office for Immigration Review (Business Objects Report Developers and Business Analysts)

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Questions?

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