

SourceBook

**CTRM Software Suppliers
and Products**

Version 081717

2017

**Commodity
Technology
Advisory**

CTRM Market Research, Analysis and Insights

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Introduction

The 2017 Commodity Technology Advisory LLC (ComTech) CTRM Software Sourcebook is designed to be a useful and usable resource to help those seeking information as to the capabilities and coverage of products within the CTRM software category. It is a starting point in the product selection process - a mid-level guide to allow the reader to develop a long list of vendors that have high potential capabilities in terms of functional and commodity coverage meet the specific needs of CTRM market participants.

It is NOT intended to be a replacement for a formal selection process - CTRM software is simply too complex to be selected properly without utilizing a programmatic selection process.

Our intention in developing the CTRM Sourcebook is to inform the reader of the wide universe of vendors and products, and allow companies seeking a new system to compile a list of vendors that may include some that might not have otherwise been considered, or that they may not have even previously been aware of.

About the Sourcebook

Each Vendor and Product listing is compiled with the same format for clarity and ease of use, and each is comprised of:

- The name of the vendor and contact information
- A graphic showing the distribution of current clients by geography
- A graphic showing client distribution by common industry segment
- ComTech Advisory research highlights regarding the vendor and product
- A graphical matrix providing an overview of the product's capabilities, by function (horizontal axis), by commodity (vertical axis)
- Company and product information including each vendors' submitted company and product description
- Total installed base by licensed customer companies
- A representative list of users of the product
- Deployment methods of the highlighted product(s)
- Office locations and contact phone numbers

The product functionality and commodity coverage charts are easily readable and provide mid-level information about each vendor's product capabilities.

ComTech's methodology for constructing the Sourcebook was to distribute a spreadsheet and questionnaire for data collection. The majority of all vendors in the space were invited to submit their information for publication. Those that chose to participate completed and returned the questionnaire, including identifying by commodity and function (or feature) whether their software:

- 1) has that capability and it is in use by a current user (indicated by green),
- 2) has that capability available but is not currently used by a client (indicated by yellow) or
- 3) does not provide that capability (indicated by red) for each function/commodity combination.

These were reviewed and edited by ComTech to ensure all vendors conformed to the same standard, and adjustments were made to some vendor responses to ensure consistency among all respondents. The information submitted by the vendors was used to complete the vendor/product listing, along with information collected in other ComTech surveys and research.

For information about CTRM vendors that elected to not participate in the production of this SourceBook, please visit

<https://www.ctrmcenter.com/resources/>.

Important Disclaimer

***Please Note:** Commodity Technology Advisory LLC cannot guarantee the accuracy of any of information within the Vendor listings. While we have attempted to match vendor claims against our knowledge of the market capabilities, given the dynamic nature of these markets and the ongoing development of new capabilities to address emerging needs, none of the vendor claims of particular capabilities can be fully and accurately verified.*

Additionally, given the complexity of the CTRM space generally, we cannot guarantee that the vendors have interpreted the terminology we used accurately in preparing their responses nor that each vendor has applied the same approach and/or interpretation in answering our questions. Rather, the material is presented on the basis that it is indicative of the broad capabilities of vendor's products at the time of publication.

ComTech Advisory strongly advises users of this document to verify all capabilities directly with the vendors and undertake requisite due diligence when selecting software.

Summary of Commodity Specific Capabilities

The chart on the following page offers a summarized view of the functions/features offered by each vendor (and product) by commodities identified below. These values do not include non-commodity specific capabilities such as back office functions (accounting) or system-wide capabilities such as reporting or currency conversion.

Using This Chart

Those seeking new CTRM capabilities can quickly identify those vendors (and products) that may meet their needs by simply reviewing the indicated breadth of capabilities for each vendor on the chart. However, it is important to note that should the reader wish to identify a specific capability (for example, the ability to capture options deals), they should carefully review each individual vendor's capabilities for that specific function. This chart is intended to provide a summarized view of the relative focus of each vendor's functional coverage across the various commodities. Each vendor will have particular capabilities, and strengths, that may not be well-reflected in a summary view; however, for those seeking broad physical commodity capabilities - such as tracking physical supplies from source to final market - this chart will provide an "at a glance" identification of potential vendors for comprehensive physical commodity trading capabilities.

Summary of Vendor Functional Coverage Percentage by Commodity

The following chart is a summation of the individual functional matrixes submitted by each vendor. The percentage values shown for each vendor(product)/commodity combination are indexes determined by the following formula:

(1 point for capability available and deployed at customer + ½ point for capability available but not deployed + 0 points for functionality not available)/Total available points applicable to that commodity

Vendor (Product)	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags				Metals			Emissions		Other Bulk	Freight Rates
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
Agiboo	0%	0%	0%	0%	0%	0%	0%	0%	90%	90%	90%	0%	0%	0%	0%	0%	0%	0%
Allegro Ags	0%	0%	0%	0%	0%	0%	0%	51%	56%	59%	59%	0%	0%	0%	0%	0%	0%	0%
Allegro Energy	91%	91%	91%	90%	90%	88%	51%	79%	88%	50%	50%	50%	50%	50%	86%	86%	88%	83%
Amphora	87%	83%	86%	88%	82%	86%	88%	88%	44%	44%	44%	88%	88%	88%	88%	88%	87%	88%
Aspect	0%	51%	90%	92%	64%	87%	46%	79%	72%	76%	68%	84%	74%	84%	11%	11%	28%	64%
Brady Com	6%	74%	87%	86%	79%	83%	86%	82%	83%	83%	83%	83%	83%	83%	62%	62%	66%	53%
Brady Energy	97%	95%	76%	76%	42%	80%	80%	2%	1%	1%	1%	1%	1%	1%	86%	86%	0%	2%
Cadran	60%	54%	63%	64%	60%	63%	66%	67%	67%	67%	67%	67%	67%	67%	65%	65%	70%	64%
Contigo	84%	82%	47%	46%	46%	83%	43%	71%	49%	49%	49%	40%	40%	40%	64%	77%	45%	52%
Eka	93%	94%	95%	95%	94%	94%	95%	95%	95%	95%	95%	95%	95%	95%	94%	94%	95%	94%
EnergyOne	83%	63%	56%	56%	38%	49%	65%	0%	0%	0%	0%	0%	0%	0%	12%	12%	0%	0%
Entero	40%	41%	76%	75%	77%	42%	41%	73%	40%	41%	41%	40%	40%	40%	38%	38%	39%	64%
Enuit	93%	97%	98%	99%	97%	98%	99%	98%	79%	79%	79%	96%	96%	80%	97%	81%	96%	72%
eZ-energy	29%	13%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Fendahl	0%	61%	65%	67%	61%	65%	35%	66%	66%	34%	66%	66%	66%	65%	33%	33%	39%	33%
FIS (Aligne)	99%	91%	76%	92%	78%	92%	88%	80%	43%	43%	43%	46%	46%	46%	88%	89%	70%	73%
FIS (Kiodex)	60%	51%	53%	55%	51%	55%	58%	56%	56%	61%	61%	61%	54%	56%	70%	70%	58%	66%
Generation 10	0%	0%	47%	48%	0%	48%	46%	94%	94%	94%	94%	94%	94%	94%	95%	95%	96%	56%
Ignite	31%	70%	71%	70%	71%	69%	66%	66%	56%	56%	56%	16%	15%	15%	36%	36%	26%	28%
Inatech	0%	0%	47%	48%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
InstaNext	49%	65%	69%	70%	66%	70%	71%	70%	70%	70%	70%	70%	70%	70%	71%	71%	70%	70%
Invensoft	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%	84%	22%	24%	20%	0%	0%	0%	0%
Lacima (Analytics)	69%	61%	56%	57%	53%	57%	29%	28%	28%	28%	28%	28%	28%	28%	35%	35%	30%	34%
Lacima (Trader)	34%	32%	30%	31%	29%	31%	33%	32%	32%	32%	32%	32%	32%	32%	39%	39%	34%	38%
Logaviv	35%	65%	62%	61%	33%	35%	34%	61%	62%	61%	61%	33%	33%	33%	41%	73%	33%	38%
Molecule	47%	38%	35%	33%	31%	31%	34%	33%	33%	33%	33%	20%	20%	20%	39%	24%	21%	9%
OATI	96%	79%	42%	43%	34%	37%	39%	38%	38%	38%	38%	38%	38%	38%	91%	45%	38%	0%
OpenLink (Endur)	96%	98%	97%	96%	94%	95%	98%	88%	88%	88%	88%	87%	87%	88%	91%	94%	91%	94%
OpenLink (Right Angle)	0%	0%	95%	95%	94%	95%	95%	93%	93%	93%	93%	0%	90%	0%	0%	0%	92%	80%
Paragon	41%	67%	71%	73%	66%	32%	34%	32%	29%	29%	29%	29%	29%	29%	45%	41%	36%	41%
Pioneer	99%	95%	95%	96%	92%	57%	54%	85%	51%	51%	74%	51%	51%	0%	100%	100%	51%	52%
Powel	96%	95%	0%	0%	0%	36%	83%	0%	0%	0%	0%	0%	0%	0%	0%	42%	0%	0%
Risk Edge	17%	16%	29%	30%	14%	15%	16%	27%	16%	16%	28%	16%	27%	16%	20%	20%	17%	20%
Scalable	0%	0%	0%	0%	0%	40%	45%	44%	44%	22%	44%	44%	39%	39%	33%	33%	42%	0%
Tradesparent	25%	24%	23%	24%	22%	24%	25%	44%	44%	44%	44%	24%	24%	24%	30%	30%	26%	55%
Trilogy	47%	56%	51%	0%	58%	0%	0%	0%	0%	0%	0%	0%	0%	0%	3%	3%	0%	0%
VuePoint	49%	43%	41%	42%	39%	42%	44%	43%	0%	0%	0%	0%	0%	0%	0%	39%	0%	0%

Source: Vendor provided data

Detailed Vendor Listings

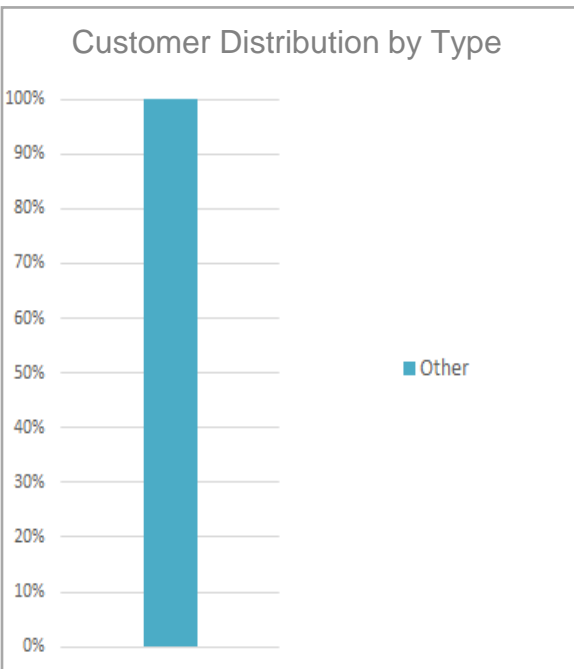
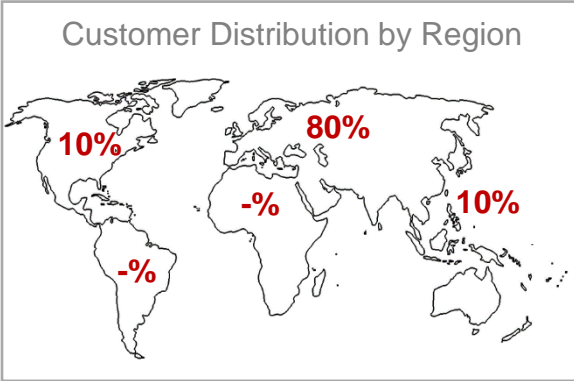
AGIBOO

Guamstraat 8
1339 NB Almere
The Netherlands

www.agiboo.com

Product: **Agiblocks** Version: **3.2**

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for Commodity	Grey



ComTech Research Highlights

2016 Vendor Perception Report

Agiboo was noted in the Top 20 of recognized vendors and was noted in the Top 10 in leaders in Agricultural CTRM and technical architecture.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates	
								Grains	Edible Oils	Softs	Base	Concentrates	Precious			North America
Production Management																
Volumetric Management																
Net Back Pricing																
DOI/Owner Balancing																
Fractionation																
Generation																
Gas Gathering																
Gas Processing																
Retail Operations																
Quality / Sampling																
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Pre-Deal Analytics "what if"																
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Futures																
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Position Management																
Physical																
Financial																
Credit Risk																
Hedge Effectiveness																
Analytics																
Mark to Market																
VaR - Monte Carlo																
VaR - Other																
Greeks																
PaR/EaR																
CVaR																
Portfolio Sensitivity Anal.																
Stress Testing																
Simulations																
Fair Value Disclosure																
Vessel Freight Risk																
Insurance																
Inventory Management																
Scheduling and Logistics																
Power Transmission																
North America																
Europe																
Pipeline																
Barge																
Rail																
Truck																
Vessel																
Supply Chain Management																
Regulatory Reporting																
Settlement																
Actualization																
Invoicing																
Settlements/Reconciliation																
Taxation																
AR																
AP																
General Ledger																
Currency Conversion																
Unit Conversion																
Document Management																
Reporting / Business Intelligence																
Canned Report																
Ad hoc																
Exec Dashboard																
BI tools																

Company Description

Agiboo is a vendor of software solutions for the commodities industry. At Agiboo we believe that it requires in depth understanding of the commodity industries to support companies with state of the art software solutions. Agiboo provides commodity trade and risk management software by its flagship product 'Agiblocks'.

Agiblocks has been developed to support companies with complex physical and/or derivative trading and risk management challenges. Agiblocks has specific functionality for the soft- and agricultural commodity industry and the reference user base comprises of companies trading cocoa, coffee, sugar, grains and oilseeds.

Agiblocks is a best of breed solution for the soft commodities industry and provides end- to end trading and execution support for companies trading physical commodities. It is easily integrated with any modern accounting system. Agiblocks offers real time risk management and valuation information and offers agile data management and analysis tools.

Agiblocks is a truly a multi company and a multi commodity solution. Due to its modular and scalable structure Agiblocks can be implemented at any stage or size of a trading company and be adjusted to its diversification of its trading environment and /or its growth.

Due to its agile structure Agiblocks caters for specific needs of companies and its agile structure also enables a relative quick and thus low efforts implementation. Once Implemented users have a relative high level of self-control when it comes to changes in configuration of the application, as for the definition of document templates and reports.

Agiblocks is based on a modern architecture which brings an extremely user friendly user interface. The modern technology base enables on site and cloud deployment and therefore supports the use of the full Agiblocks functionality on any mobile device such as mobile phones and/or tablets.

Delivery Methods – Traditional License, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 25

Representative Clients – RCMA Sugar, Daarnhouwer, Touton, Tereos Commodities, Sudzucker, Malaysian Sugar Manufacturers

Office Locations and Phone

- ✓ The Netherlands +31 365 213 131



AGIBLOCKS
Commodity Trade and
Risk Management Software



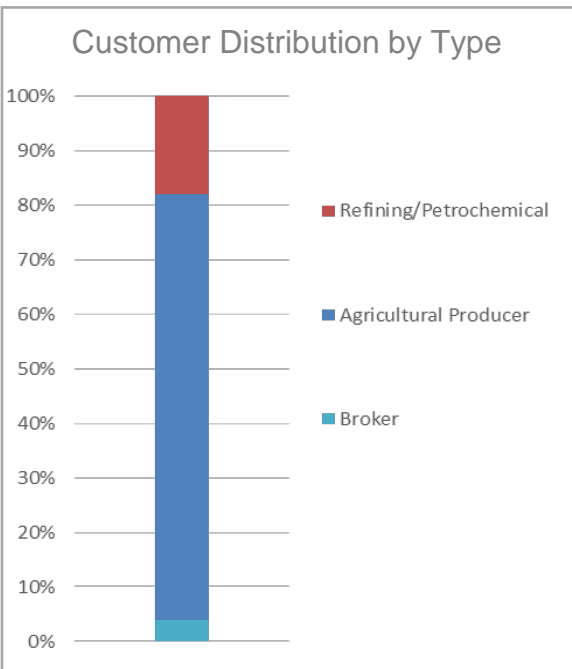
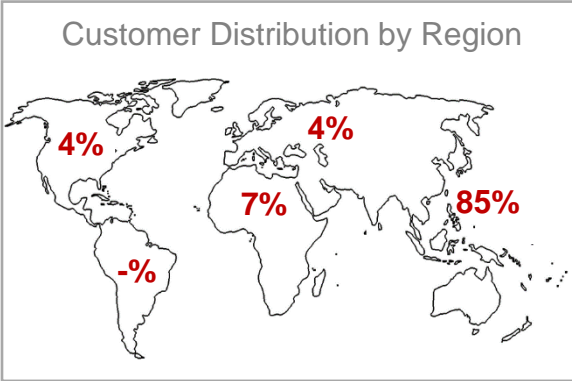
ALLEGRO DEVELOPMENT

600 N. Pearl St.
Suite 2000
Dallas TX 75201

www.allegrodev.com

Product: **Allegro Ags** Version:

K e y	Functionality is deployed and in production at a client site	
	Not Deployed, but system is capable of providing functionality	
	System is not currently capable of providing that functionality	
	Not Applicable - Functionality not applicable for commodity	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Allegro is a global scale provider of CTRM solutions and is one of the most recognized names in ComTech's 2016 CTRM Vendor Perceptions Study.

The company is noted as #3 (tie) in Ags and Softs and as the #1 vendor in Bulk Commodities.

Allegro is noted as #1 in Technical Architecture, #2 in Risk Management, #1 in Commodity Management and as the #2 provider of a Single CTRM Platform for all commodities.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Management																	
Volumetric Management																	
Net Back Pricing																	
DOI/Owner Balancing																	
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Settlements/Reconciliation																	
Taxation																	
AR																	
AP																	
General Ledger																	
Currency Conversion																	
Unit Conversion																	
Document Management																	
Reporting / Business Intelligence																	
Canned Report																	
Ad hoc																	
Exec Dashboard																	
BI tools																	

Company Description

Allegro Ags is purpose-built commodity trading and risk management software for companies manufacturing, trading, marketing, transporting and storing agricultural products, such as oilseeds, grains and rubber. From the source to the end customer, Allegro provides position visibility, risk mitigation, compliance and controls that drive predictability and profitability.

Allegro works across the commodity spectrum, and it's designed to help companies better understand and manage their portfolio. For agriculture companies, that means they can manage functions such as credit, risk, logistics and real-time reporting without the need for multiple systems or spreadsheets.

Allegro's software is focused on several of our customer's critical areas: commodity trading, risk management, physical logistics, regulatory compliance and accounting. Our mission is to assist the top companies worldwide as they work to improve their results by maximizing the value of their commodities, from the ground to the point of consumption.

We believe that our customers benefit from what we call the Allegro Experience:

- Product Innovation: We stand for continuous development of our software's foundations and features
- Customer Experience: Our advocacy for customer needs and best practices never ends
- Partner Ecosystem: A large group of specialists, generalists and development partners work alongside the Allegro team
- Domain Expertise: We're proud to have a deep bench of experts in each domain and business process
- Business Alignment: Allegro's software is built for your business, meaning we deliver value without requiring unwieldy customization

Delivery Methods – Traditional License, Hosted in Public Cloud, Hosted in Private Cloud

Number of Licensed Client Companies - 30

Representative Clients – Golden Agri, Sime Darby, IFFCO

Office Locations and Phone

- | | |
|-----------------------------------|--------------------------|
| ✓ UK 44 (0) 20 7382 4310 | ✓ Dubai 971 52 915 7221 |
| ✓ Singapore 65 6236 5730 | ✓ Jakarta 6221 298 09200 |
| ✓ Switzerland 41 (0) 44 22 99 020 | |

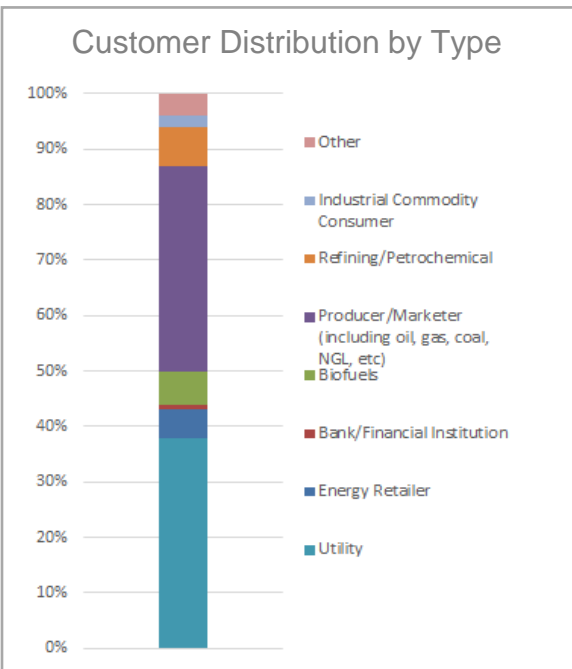
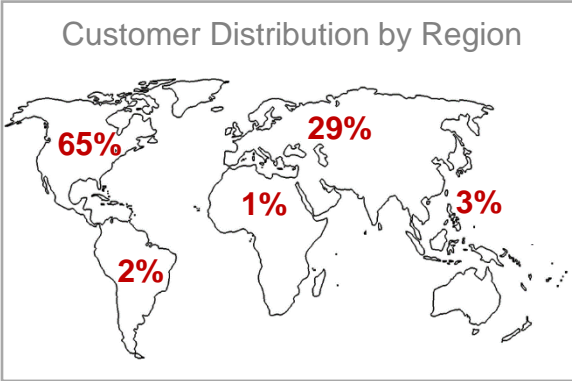
ALLEGRO DEVELOPMENT

600 N. Pearl St.
Suite 2000
Dallas TX 75201

www.allegrodev.com

Product: **Allegro** Version: **Horizon 16.123.3.1**

Key	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Allegro is a global scale provider of CTRM solutions and is one of the most recognized names in ComTech's 2016 CTRM Vendor Perceptions Study.

The company is noted as #2 in Overall Market Leadership, #1 in Natural Gas, and #2 in Overall Energy, Power and Oil & Products leadership. They are also #2 in Implementation leadership.

Allegro is noted as #1 in Technical Architecture, #2 in Risk Management, #1 in Commodity Management and as the #2 provider of a Single CTRM Platform for all commodities.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates	
								Grains	Edible Oils	Softs	Base	Concentrates	Precious			North America
Production Management																
Production Operations																
Production Management																
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Storage/Inventory																
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Position Management																
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Credit Risk																
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VaR - Monte Carlo																
VaR - Other																
Greeks																
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CVaR																
Portfolio Sensitivity Anal.																
Stress Testing																
Simulations																
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Regulatory Reporting																
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Settlement																
Actualization																
Invoicing																
Settlements/Reconciliation																
Taxation																
AR																
AR																
AP																
AP																
General Ledger																
General Ledger																
Currency Conversion																
Currency Conversion																
Unit Conversion																
Unit Conversion																
Document Management																
Document Management																
Reporting / Business Intelligence																
Reporting / Business Intelligence																
Canned Report																
Ad hoc																
Exec Dashboard																
BI tools																

Company Description

Allegro Horizon is designed to help companies who buy, sell, produce or consume commodities better understand, manage and profit from their portfolio. This means they can manage functions such as credit, risk, logistics and real-time position visibility without the need for multiple systems or spreadsheets.

Allegro Horizon is focused on several of our customer's critical areas: commodity trading, risk management, physical logistics, regulatory compliance and accounting. Our mission is to assist the top companies worldwide as they work to improve their results by maximizing the value of their commodities, from the ground to the point of consumption.

We believe that our customers benefit from what we call the Allegro Experience:

- Product Innovation: We stand for continuous development of our software's foundations and features
- Customer Experience: Our advocacy for customer needs and best practices never ends
- Partner Ecosystem: A large group of specialists, generalists and development partners work alongside the Allegro team
- Domain Expertise: We're proud to have a deep bench of experts in each domain and business process
- Business Alignment: Allegro's software is built for your business, meaning we deliver value without requiring unwieldy customization

Delivery Methods – Traditional License, Hosted in Public Cloud

Number of Licensed Client Companies - 166

Representative Clients – Calpine, Southwest Airlines, Eon, Racetrac, EMERA, Exxon Mobil

Office Locations and Phone

- | | |
|-----------------------------------|--------------------------|
| ✓ UK 44 (0) 20 7382 4310 | ✓ Dubai 971 52 915 7221 |
| ✓ Singapore 65 6236 5730 | ✓ Jakarta 6221 298 09200 |
| ✓ Switzerland 41 (0) 44 22 99 020 | |

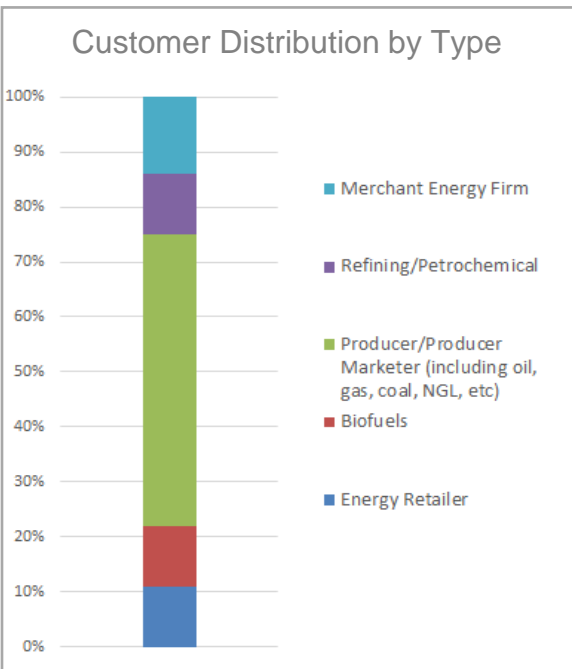
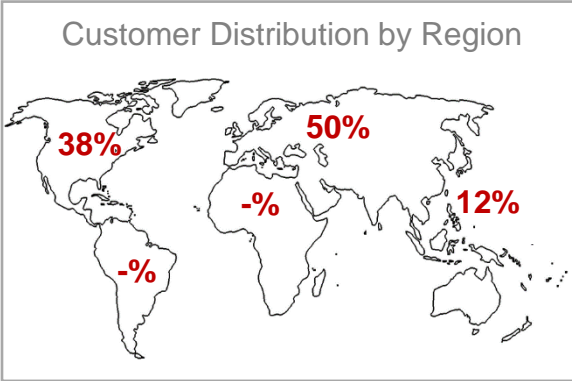
AMPHORA INC.

10370 Richmond Ave.
Suite 525
Houston, TX 77042

www.amphorainc.com

Product: **Symphony** Version: **3.1**

K e y	Functionality is deployed and in production at a client site	
	Not Deployed, but system is capable of providing functionality	
	System is not currently capable of providing that functionality	
	Not Applicable - Functionality not applicable for commodity	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Amphora was noted as a Top 4 vendor of solutions for oil and oil products by market respondents in the 2016 CTRM Vendor Perception Report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions		Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
Production Management																		
Production Operations																		
Volumetric Management																		
Net Back Pricing																		
DOI/Owner Balancing																		
Fractionation																		
Generation																		
Gas Gathering																		
Gas Processing																		
Retail Operations																		
Quality / Sampling																		
Contract Management																		
Credit Tracking																		
Curve Management																		
Portfolio Optimization																		
Supply-Demand Optimization																		
Pre-Deal Analytics "what if"																		
Trade Capture																		
Physical																		
Financial																		
Exchange																		
Deal Types																		
Spot & Forwards																		
Futures																		
Swaps																		
Options																		
Swaptions																		
Transportation																		
Storage/Inventory																		
Position Management																		
Physical																		
Financial																		
Credit Risk																		
Hedge Effectiveness																		
Analytics																		
Mark to Market																		
VaR - Monte Carlo																		
VaR - Other																		
Greeks																		
PaR/EaR																		
CVaR																		
Portfolio Sensitivity Anal.																		
Stress Testing																		
Simulations																		
Fair Value Disclosure																		
Vessel Freight Risk																		
Insurance																		
Inventory Management																		
Scheduling and Logistics																		
Power Transmission																		
North America																		
Europe																		
Pipeline																		
Barge																		
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Regulatory Reporting																		
Settlement																		
Actualization																		
Invoicing																		
Settlements/Reconciliation																		
Taxation																		
AR																		
AP																		
General Ledger																		
System Wide																		
Currency Conversion																		
Unit Conversion																		
Document Management																		
Reporting / Business Intelligence																		
Canned Report																		
Ad hoc																		
Exec Dashboard																		
BI tools																		

Company Description

Amphora, Inc. is a leading software solution provider for commodity trading, logistics and risk management in the global crude, refined, coal, ore, metals petrochemical, gas, power, agricultural, and freight marketplace. It has been providing ETRM solutions since 1997 and is a leading global provider of software solutions designed and developed for companies in the field of commodity trading and risk management. Its team includes some of the most experienced software designers, developers and business analysts in the commodities industry today. Since its inception, its main goal has been to provide the trading community with the most robust, user friendly, enterprise-wide software package available. Amphora continues to launch new products that address customers' needs and adjust to dynamic market demands.

Amphora is a privately held company headquartered in Houston, Texas with offices and representations in Stamford Connecticut, Mexico, Switzerland, India, Italy, United Kingdom and Singapore. Clients include significant physical players in the liquid hydrocarbon markets such as integrated oil companies, merchant traders, refiners and marketers, utilities and financial players such as banks.

With offices in the USA, Europe and Asia, Amphora, Inc. provides a global coverage for local and international clients and is able to guarantee 24/7 service and support.

Delivery Methods – Traditional License, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 16

Representative Clients – Mercuria, Circle K Europe, Petredec

Office Locations and Phone

- | | |
|------------------------------|----------------------------------|
| ✓ US 1 713 339 5600 | ✓ India 1 203 216 8841 |
| ✓ Switzerland 1 203 216 8841 | ✓ Stamford, CT US 1 203 216 8841 |

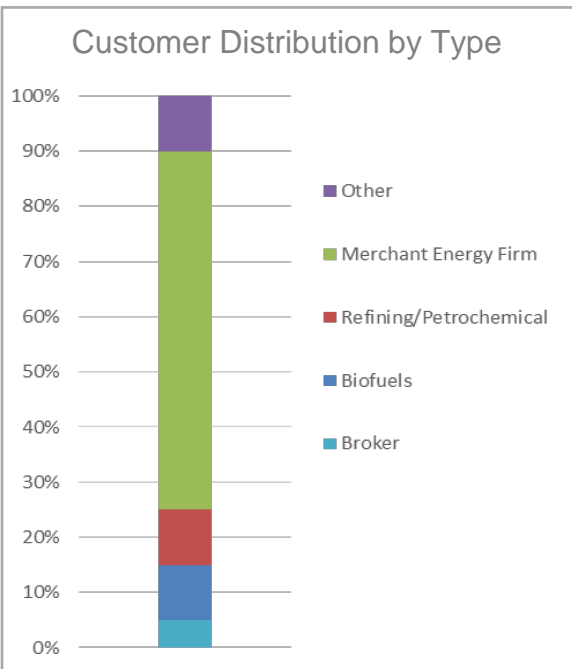
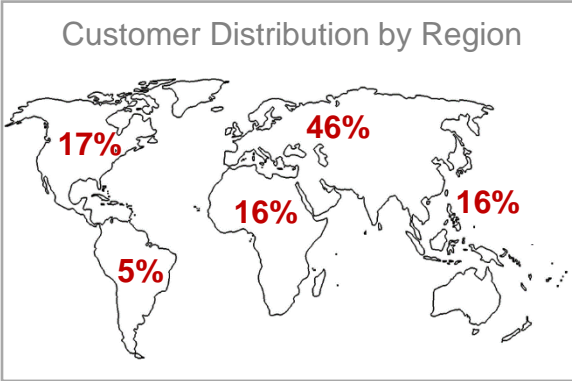
ASPECT

Castlewood House
77-91 New Oxford Street
London UK WC1A 1DG

www.aspectenterprise.com

Product: **Aspect CTRM** Version: **16.3.1**

K e y	Functionality is deployed and in production at a client site.	
	Not Deployed, but system is capable of providing functionality	
	System is not currently capable of providing that functionality	
	Not Applicable - Functionality not applicable for commodity	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Aspect is noted as the #4 leader in Oil and Products by respondents to the 2016 CTRM Vendor Perception Report. Additionally, the company is noted as the #1 leader in both Cloud Delivery of CTRM products and in Implementations.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emission	Other Bulk	Freight Rates
							BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious		
Production Management															
Production Operations															
Volumetric Management															
Net Back Pricing															
DOI/Owner Balancing															
Fractionation															
Generation															
Gas Gathering															
Gas Processing															
Retail Operations															
Quality / Sampling															
Contract Management															
Credit Tracking															
Curve Management															
Portfolio Optimization															
Supply-Demand Optimization															
Pre-Deal Analytics "what if"															
Trade Capture															
Physical															
Financial															
Exchange															
Deal Types															
Spot & Forwards															
Futures															
Swaps															
Options															
Swaptions															
Transportation															
Storage/Inventory															
Position Management															
Physical															
Financial															
Risk Management and Analysis															
Credit Risk															
Hedge Effectiveness															
Analytics															
Mark to Market															
VaR - Monte Carlo															
VaR - Other															
Greeks															
PaR/EaR															
CVaR															
Portfolio Sensitivity Anal.															
Stress Testing															
Simulations															
Fair Value Disclosure															
Vessel Freight Risk															
Insurance															
Middle Office															
Inventory Management															
Scheduling and Logistics															
Power Transmission															
North America															
Europe															
Pipeline															
Barge															
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Truck															
Vessel															
Supply Chain Management															
Back Office															
Regulatory Reporting															
Settlement															
Actualization															
Invoicing															
Settlements/Reconciliation															
Taxation															
AR															
AP															
General Ledger															
System Wide															
Currency Conversion															
Unit Conversion															
Document Management															
Reporting / Business Intelligence															
Canned Report															
Ad hoc															
Exec Dashboard															
BI tools															

Company Description

Aspect is the leading global provider of multi-commodity trade, risk and operations management solutions delivered Software-as-a-Service (SaaS) in the cloud. With more than 487 customers in 86 countries, it's one of the fastest growing providers with rapid deployment, affordable subscriptions, and immediate ROI for all size companies from the largest trading organizations in the world, to small and large trading firms.

AspectCTRM is a full-featured commodity trading and risk management enterprise suite for front, middle and back office with support for financial and physical trade activity. It's available in three editions: Lite, Standard and Enterprise, expanding in functionality according to the needs and budgets of clients. Aspect is the only E/CTRM solutions provider with market data and analytics tools delivered with its trade and risk functions on the same platform, for convenient price uploads to CTRM.

AspectCTRM is scalable, and integrates with homegrown and 3rd party systems. Its Trade, Risk, Operations and Financial Operations modules are developed as components allowing companies to incrementally integrate solutions as challenges arise, add new functionality as needed, and maintain investments in current systems. Aspect's solutions are available on desktop, tablets and mobile devices and through its Aspect Partner Program (APP).

Delivery Methods – SaaS: Multi-Tenanted, Hosted

Number of Licensed Client Companies - 71

Representative Clients – Trafigura, Philia, Glencore, Mitsubishi, Braskem, Gulf Petroleum, Klesch, Anglo American, Chemium, Aegean, Hess, Sumitomo, Essar

Office Locations and Phone

- ✓ UK 44 20 7632 0170
- ✓ Russia 7 499 678 3004
- ✓ US 1 713 808 9504
- ✓ Singapore 65 6818 9244

Start-Ups to Market Leaders Trust Their Trading Business to the Fastest Growing CTRM Software in the World.





Commodity Trade Risk Management



EnergyRisk
Awards
2017
Winner



Aspect
ETRM/CTRM
software house
of the year



GAME CHANGERS
AWARDS 2017



EnergyRisk
Software
Rankings 2017
Winner



ACCQ5
Global
Awards
2017



Aspect

CLOUD: Transform for Advantage

www.aspectenterprise.com
moreinfo@aspectenterprise.com



Secure



Continuous
Upgrades



Affordable



Real Time P&L,
Exposure &
Market Data

Houston | London | Singapore | Bengaluru

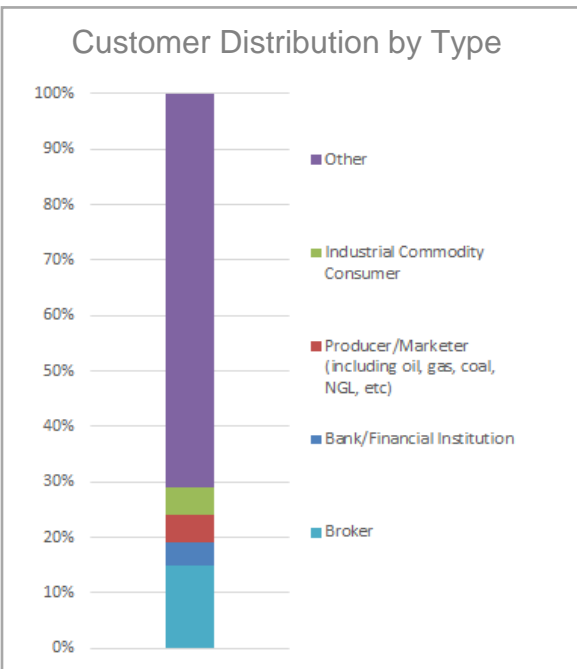
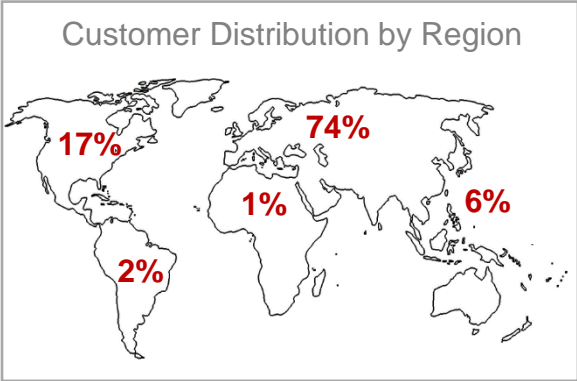
BRADY plc.

281 Cambridge Science Parkway
Milton Road
Cambridge UK CB4 0WE

www.bradypc.com

Product: **Brady Commodities** Version: **2017**

K e y	Functionality is deployed and in production at a client site										Y								
	Not Deployed, but system is capable of providing functionality																		
Y	System is not currently capable of providing that functionality										N/A								
	Not Applicable - Functionality not applicable for commodity																		
		Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions		Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe			
Production Management																			
Production Operations	Volumetric Management																		
	Net Back Pricing																		
	DOI/Owner Balancing																		
	Fractionation																		
	Generation																		
	Gas Gathering																		
	Gas Processing																		
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	Quality / Sampling																		
	Contract Management																		
Front Office / Trading	Credit Tracking																		
	Curve Management																		
	Portfolio Optimization																		
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	Vessel																		
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Regulatory Reporting																			
Settlement																			
Back Office	Actualization																		
	Invoicing																		
	Settlements/Reconciliation																		
	Taxation																		
	AR																		
	AP																		
General Ledger																			
System Wide	Currency Conversion																		
	Unit Conversion																		
	Document Management																		
	Reporting / Business Intelligence																		
	Canned Report																		
	Ad hoc																		
Exec Dashboard																			
BI tools																			



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Brady is ranked as #4 (tie) in Overall Market Leadership. Their non-energy commodities products are noted as #5 in Ags and Softs, #3 in Bulk commodities, #1 in both Base and Precious Metals. The company is also noted as #3 in Cloud Delivery, #3 for Platform for All Commodities, #4 (tie) in Implementation Leadership, #6 (tie) in Technical Architecture, #6 (tie) in Risk Management and #3 in Commodity Management.

Company Description

Brady is the largest European-headquartered provider of trading and risk management solutions for the energy and commodities industries. With over 30 years' experience Brady is now used by over 400 companies globally, including some of the largest trading companies, financial institutions, producers, mining corporations, commodity fabricators, recycling companies, energy generators and hedge funds.

Brady solutions support a full product and trade lifecycle from trade booking, logistics, lifecycle & risk management and invoicing & settlement for trading companies, producers, fabricators, banks and brokers. The solution manages physical and derivative trading and can be deployed as part of an integrated, stand-alone solution or using selected stand-alone components or services to complement existing solution architecture.

Brady's solutions cover: Ferrous, non-ferrous and precious metals; Agricultural/soft commodities; Raw Materials and concentrates; Oil complex and coal.

Brady's solutions allow clients to:

- Manage and optimise contracts and contract fulfilment from start to finish, improving efficiency and reducing operational risk
- Manage, analyse and report on physical, raw material and derivative trades, P&L, positions and risk
- Ensure complete visibility of commodity price, volatility and currency risk
- Control and improve costs incurred throughout the supply chain
- Implement effective risk control processes
- Streamline operations through fully integrated accounting processes

Brady's solutions allow businesses to automate many of their operational processes, improving efficiency and reducing cost per transaction, and provides open and automated interfacing into external applications to allow seamless integration with other systems.

Reporting and data extraction is based on a rich data service layer, allowing rapid and flexible construction of reports and BI dashboards providing management with real-time information on trading performance, metrics and risks.

Brady solutions can be delivered from its Cloud environment, offering turnkey solution that reduces cost of ownership, improves business agility and competitive advantage. The Brady Cloud delivers the highest levels of availability, security and is managed by Brady's technical and product experts.

Delivery Methods – Traditional License, Hosted in Private Cloud, Rental

Number of Licensed Client Companies - 81

Representative Clients – Glencore, Mitsubishi, Invivo, Norilsk, Traxys, Noble, ICBC Standard Bank, Kyen

Office Locations and Phone

- | | |
|------------------------------|---------------------------|
| ✓ US 1 419 891 1100 | ✓ Singapore 65 672 565 03 |
| ✓ Norway 47 990 999 98 | ✓ India 91 806 769 5900 |
| ✓ Switzerland 41 228 691 000 | |

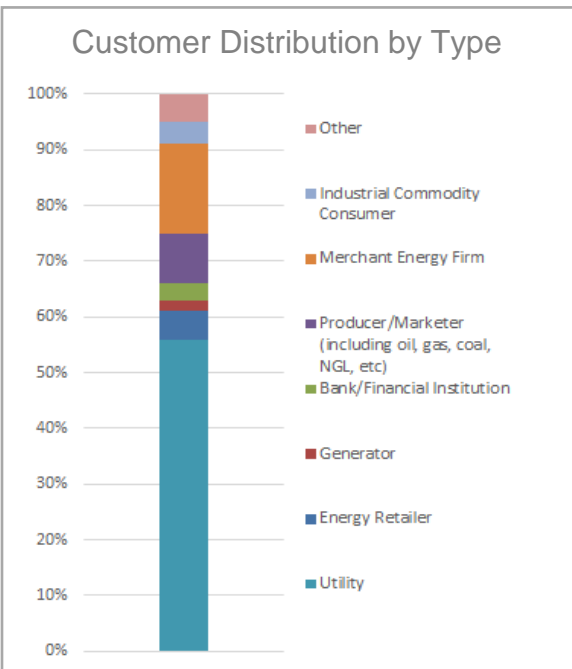
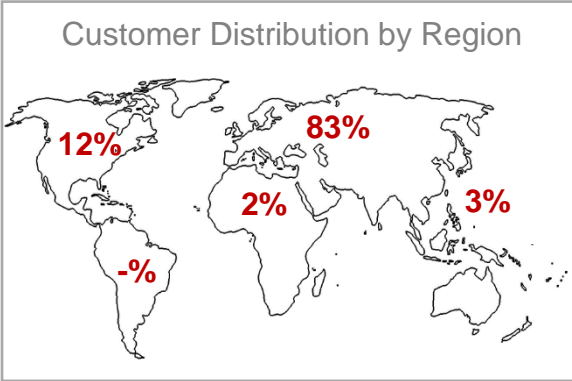
BRADY plc.

281 Cambridge Science Parkway
Milton Road
Cambridge UK CB4 0WE

www.bradyplc.com

Product: **Brady Energy** Version: **2017**

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Brady is ranked as #4 (tie) in Overall Market Leadership. Their energy products are noted as #5 (tie) in Energy Leadership, #5 (tie) in Power.

The company is also noted as #3 in Cloud Delivery, #3 for Platform for All Commodities, #4 in Implementation Leadership, #6 in Technical Architecture, #6 in Risk Management and #3 in Commodity Management Leadership.

	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	Other Bulk	Freight Rates
Production Operations																		
Production Management																		
Volumetric Management																		
Net Back Pricing																		
DOI/Owner Balancing																		
Fractionation																		
Generation																		
Gas Gathering																		
Gas Processing																		
Retail Operations																		
Quality / Sampling																		
Front Office / Trading																		
Contract Management																		
Credit Tracking																		
Curve Management																		
Portfolio Optimization																		
Supply-Demand Optimization																		
Pre-Deal Analytics "what if"																		
Trade Capture																		
Physical																		
Financial																		
Exchange																		
Deal Types																		
Spot & Forwards																		
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Risk Management and Analysis																		
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VaR - Monte Carlo																		
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General Ledger																		
System Wide																		
Currency Conversion																		
Unit Conversion																		
Document Management																		
Reporting / Business Intelligence																		
Canned Report																		
Ad hoc																		
Exec Dashboard																		
BI tools																		

Company Description

Brady plc is the largest European-headquartered provider of trading and risk management software to the global commodity, recycling and energy markets.

Brady combines fully integrated and complete solutions supporting the entire commodity trading operation, from capture of financial and physical trading, through risk management, handling of physical operations, to back office financials and treasury settlement for energy, refined and unrefined metals, scrap and secondary metals, soft commodities and agricultural products.

Brady has 30 years' expertise in the commodity markets with more than 13,000 users at over 400 companies worldwide that depend on Brady's software solutions to deliver vital business transactions across their global operations.

Brady clients include many of the world's largest financial institutions, trading companies, miners, refiners, scrap processors, recyclers and producers, tier one banks and plus a large number of London Metal Exchange (LME) Category 1 and 2 clearing members and many leading European energy generators, traders and consumers.

With expertise built upon an open platform of solutions and services, Brady's offering can improve business processes and assist organisations to achieve a higher level of business efficiency.

Brady Energy's solutions support electricity, gas and oil trading with sophisticated risk management capabilities. They enable all derivative contracts to be managed under the standard umbrella of the energy complex in a single streamlined process. Multiple trade types are supported including exchange futures and options, OTC commodity swaps, basis swaps and Asian options.

Brady's solutions offer up-to-the minute decision support and fast deal capture for all deal types. Key features include energy deal capture, half-hour granularity for electricity trading and new market price management for cross product risk. From raw materials to production of multiple end products, the entire transaction process can be managed from one easy-to-use interface.

Brady covers the following energy products: Power, Electricity, Gas, Emissions, Renewables, LNG, and LPG

Delivery Methods – Traditional License, Hosted in Private Cloud, Hosted in Public Cloud, Rental

Number of Licensed Client Companies - 116

Representative Clients – Axpo, TAQA, Fortum, Statkraft, Statoil, Energi Danmark

Office Locations and Phone

- | | |
|------------------------------|---------------------------|
| ✓ US 1 419 891 1100 | ✓ Singapore 65 672 565 03 |
| ✓ Norway 47 990 999 98 | ✓ India 91 806 769 5900 |
| ✓ Switzerland 41 228 691 000 | |

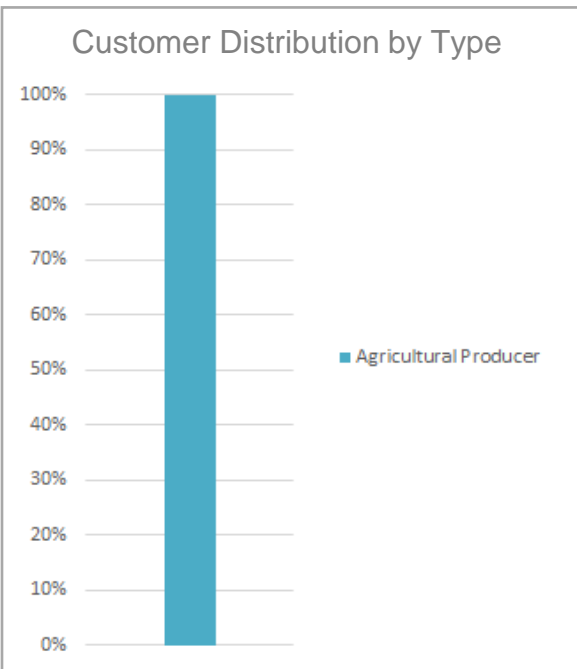
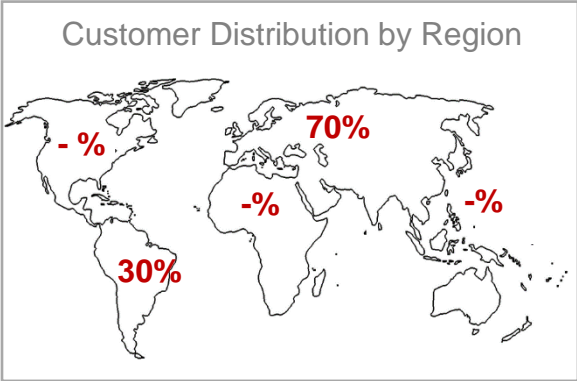
CADRAN CONSULTANCY

De Beek 7
NL-3871MS
Hoevelaken, The Netherlands

www.cadran.nl

Product: Oracle JDE Edwards CTRM Version: 9.2.1

		Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates	
K e y	Functionality is deployed and in production at a client site	Green															
	Not Deployed, but system is capable of providing functionality	Yellow															
	System is not currently capable of providing that functionality	Red															
	Not Applicable - Functionality not applicable for commodity	Grey															
Function / Feature																	
Production Operations	Production Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Volumetric Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Net Back Pricing	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	DOI/Owner Balancing	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Fractionation	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Generation	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Gas Gathering	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Gas Processing	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Retail Operations	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Quality / Sampling	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Front Office / Trading	Contract Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Credit Tracking	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Curve Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Portfolio Optimization	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Supply-Demand Optimization	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Pre-Deal Analytics "what if"	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Trade Capture	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Physical	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Financial	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Exchange	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Deal Types	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Spot & Forwards	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Futures	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Swaps	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Options	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Swaptions	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Transportation	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Storage/Inventory	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Position Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Physical	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Financial	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Risk Management and Analysis	Credit Risk	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Hedge Effectiveness	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Analytics	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Mark to Market	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	VaR - Monte Carlo	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	VaR - Other	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Greeks	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	PaR/EaR	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	CVaR	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Portfolio Sensitivity Anal.	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Stress Testing	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Simulations	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Fair Value Disclosure	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Vessel Freight Risk	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Insurance	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Middle Office	Inventory Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Scheduling and Logistics	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Power Transmission	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	North America	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Europe	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Pipeline	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Barge	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Rail	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Truck	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Vessel	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Supply Chain Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Back Office	Regulatory Reporting	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Settlement	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Actualization	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Invoicing	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Settlements/Reconciliation	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Taxation	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	AR	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
AP	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
General Ledger	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
System Wide	Currency Conversion	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Unit Conversion	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Document Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Reporting / Business Intelligence	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
	Canned Report	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Ad hoc	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
Exec Dashboard	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	
BI tools	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Cadran has yet to show-up in ComTech's CTRM Vendor Perception Studies; however, given the company's growing market reach and coverage, we expect it will become increasingly visible and known in the future.

Company Description

Cadran's CTRM solution, called CTRM4JDE, offers international trading companies, manufacturers and refineries a contract management, risk management and supply chain solution, which is fully integrated with the standard JD Edwards ERP functionality.

CTRM4JDE addresses topics such as warehousing, dispatch, transport and trading of commodities. It also supports transfers and shipment. Basic processes such as administration, finance, distribution, quality management, logistics and manufacturing found within a company are fully integrated into a single solution. The solution enables monitoring of all trading activities and contractual obligations.

CTRM4JDE is based on Oracle JD Edwards ERP software and supports a broad range of operating processes, including:

- Financial Management • Sales Order Management • Customer Relationship Management • Inventory management • Contracts of Sale • Currency Contracts • Flat purchase contracts • Future contracts • Position management • Premium contracts • Risk management • Determination of profit • Weigh bridge interface • Supply management (procurement) • Business Intelligence • Flexible allocation on basis of product specifications

Cadran's CTRM solution CTRM4JDE manages risks, provides real-time insight into positions and enables companies to outperform with their logistics services.

From the start in 1998, Cadran Consultancy is specialized in implementing, supporting and hosting ERP systems focusing on wholesale/distribution, manufacturing and commodity trading companies. Cadran is an Oracle Platinum Business Partner and reseller whose ERP portfolio consists of Oracle JD Edwards, Oracle Cloud and Oracle NetSuite. In the Benelux Cadran serves more than 80 customers with a team of 50 experienced functional and technical consultants. Cadran in-house developed Commodity Trading & Risk Management solution is seamlessly integrated with Oracle JD Edwards ERP. Cadran develops and maintains this solution with a dedicated inhouse team. With its ERP Support & Managed Services offering, Cadran gives customers peace of mind through named support specialists and 24/7 availability at a fixed price/user/month. Cadran is co-founder of Redfaire International, a joint venture of 7 international ERP consultancy organizations with more than 400 ERP specialists combined. As such Cadran serves international customers with multi-country implementations, roll outs and support.

Delivery Methods – *Information not provided*

Number of Licensed Client Companies - 5

Representative Clients – Interfood, Ragaza, Nedcoffee

Office Locations and Phone

- | | |
|--------------------------|------------------------------|
| ✓ UK 31 332 471 599 | ✓ US 31 332 471 599 |
| ✓ Ireland 31 332 471 599 | ✓ Switzerland 31 332 471 599 |
| ✓ France 31 332 471 599 | |

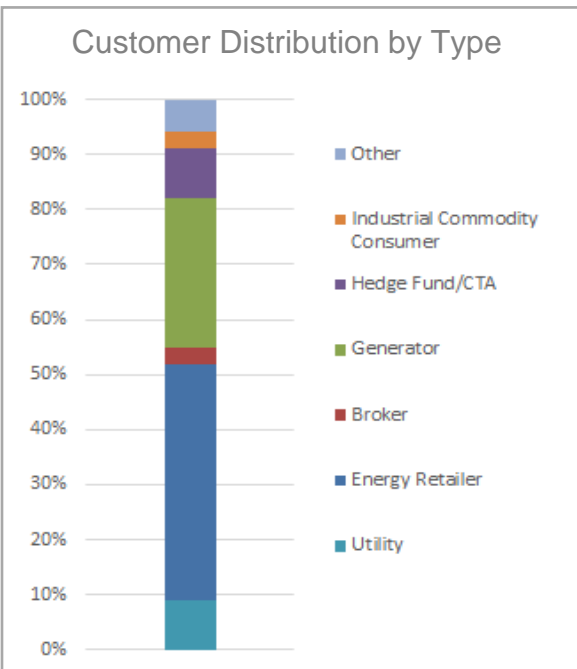
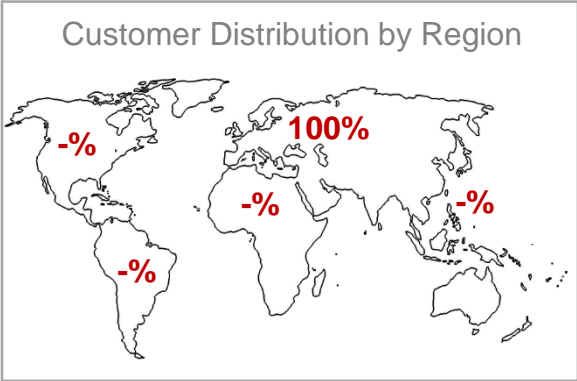
CONTIGO

Radcliffe House, Blenheim Court
Solihull, West Midlands
B91 2AA England

www.contigosoftware.com

Product: **enTrader** Version: **6.1**

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ComTech Research Highlights

2016 CTRM Vendor Perception Report

Contigo was noted as #6 (tie) in Overall Market Leadership by respondents in the 2016 CTRM Vendor Perception Report. They were additionally noted as #4 (tie) in all Energies, #5 (tie) in Power, #6 (tie) in Natural Gas, #8 (tie) in Oil and Products. They were also noted as a Top 10 leader in Cloud Delivery, Implementations, Technical Architecture, Risk Management and Commodity Management.

Company Description

Contigo provides an award winning browser based ETRM system offered in the cloud or deployed. The system manages gas, power, carbon emissions and financial oil positions. Contigo has a modular product suite which provides sophisticated solutions for managing the full trade lifecycle, portfolio management, P&L, risk analytics, regulatory reporting and settlement. In addition the system manages energy notifications, nominations and scheduling. Trades executed on Trayport are straight through processed.

Contigo products support full APIs and can be integrated into in-house or third party systems.

Contigo provides an award winning browser based ETRM system offered in the cloud or deployed. The system manages gas, power, carbon emissions and financial oil positions. Contigo has a modular product suite which provides sophisticated solutions for managing the full trade lifecycle, portfolio management, P&L, risk analytics, regulatory reporting and settlement. In addition the system manages energy notifications, nominations and scheduling. Trades executed on Trayport are straight through processed. Contigo products support full APIs and can be integrated into in-house or third party systems. Trades are managed natively down to low level granularity with near real time reporting capabilities supporting critical business decision making and intraday trading. The system is pre-configured, providing 'out the box' functionality, allowing rapid implementation times. Contigo is a business unit of Trayport.

Delivery Methods – Traditional License, Hosted in Private Cloud

Number of Licensed Client Companies – *Information not provided*

Representative Clients – *Information not provided*

Office Locations and Phone

- ✓ UK 00 44 207 922 5150

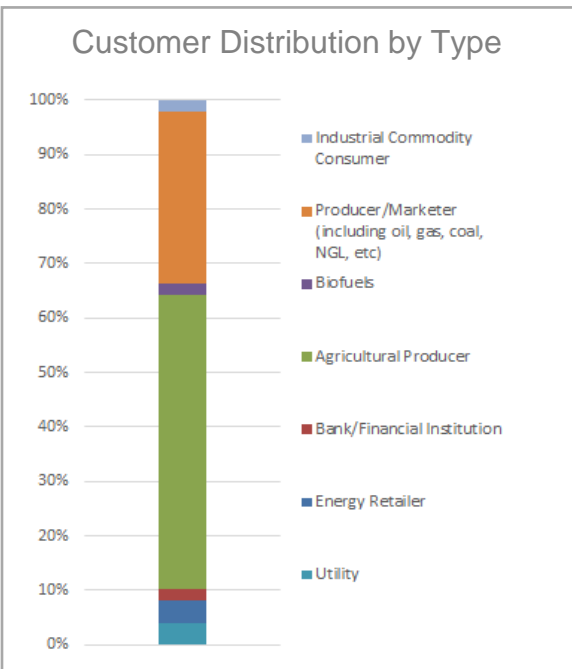
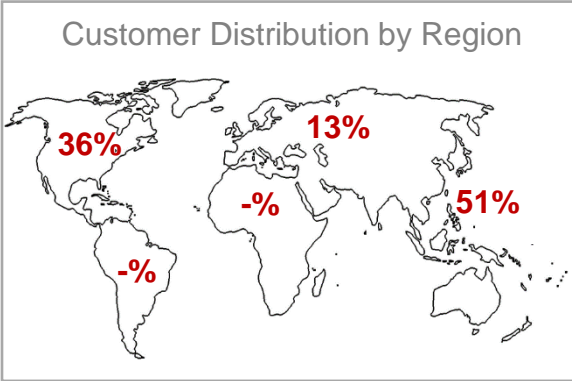
Eka Software Solutions

101 Merritt 7
Suite 300
Norwalk CT 06851

www.ekaplus.com

Product: **InSight CM** Version: Agriculture (8.4.2), Metals (8.3.1.0) and Energy (8.4)

K e y	Functionality is deployed and in production at a client site	
	Not Deployed, but system is capable of providing functionality	
	System is not currently capable of providing that functionality	
	Not Applicable - Functionality not applicable for commodity	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

EKA was noted as #6 (tie) in Overall Market Leadership and #6 (tie) in Natural Gas. The company is further noted as #2 in Ags & Softs, #5 in Bulk Commodities, #3 (tie) in Base Metals, #5 (tie) in Cloud Platform, #6 (tie) in Implementation, #6 (tie) in Risk Management and #6 in Commodity Management.

EKA was also noted as a top 10 vendor in Technical Architecture.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Operations																	
Production Management																	
Volumetric Management																	
Net Back Pricing																	
DOI/Owner Balancing																	
Fractionation																	
Generation																	
Gas Gathering																	
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Retail Operations																	
Quality / Sampling																	
Front Office / Trading																	
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Mark to Market																	
VaR - Monte Carlo																	
VaR - Other																	
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System Wide																	
Currency Conversion																	
Unit Conversion																	
Document Management																	
Reporting / Business Intelligence																	
Canned Report																	
Ad hoc																	
Exec Dashboard																	
BI tools																	

Company Description

Eka is the global leader in providing Smart Commodity Management software solutions.

Eka's InSight CM platform is a next-generation ETRM and CTRM software solution for managing commodity transactions end-to-end throughout the value chain. The platform is suitable for a wide range of commodities in the agricultural, manufacturing, metals, and energy industries. Commodity market participants use Eka's solution to manage commodity trading, procurement, risk management, regulatory compliance, supply chain, operations, logistics, bulk handling, scheduling, processing, accounting, settlement, and decision support.

Unlike first- and second-generation ETRM and CTRM platforms that were designed to be only transaction systems, Eka's Smart Commodity Management suite provides not only end-to-end transaction system but also fact-based, predictive, and prescriptive decision support to enable commodity organizations to better manage in today's complex and volatile business environment.

Eka's Smart Commodity Management suite includes Commodity Analytics Cloud, an advanced analytics solution that brings commodity specific analytics to all business users. Together with InSight CM, Eka provides the analytical and operational solutions that commodities companies need to run more efficiently, effectively, and profitably.

Learn more about Commodity Analytics Cloud at www.commodity-analytics-cloud.com

To learn about how Eka can add value to your operations, email us at info@ekaplus.com or visit www.ekaplus.com

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud

Number of Licensed Client Companies - 45

Representative Clients – Bunge, Cargill, CBH, Cofco, GrainCorp, LD Pinnacle, Marubeni, BMA, Rio Tinto, Eastern Alloys, Oman Cables, Superior Essex, Just Energy, REG, EDF, Twin Eagle, Sask Energy, Enmax, Tasisman, Anahau Energy

Office Locations and Phone

- | | |
|---------------------------|--------------------------|
| ✓ US 1 203 810 4250 | ✓ Canada 1 403 237 7740 |
| ✓ Australia 618 8444 5900 | ✓ UK 44 208 973 2683 |
| ✓ India 91 80 4081 9200 | ✓ Singapore 65 9069 1552 |

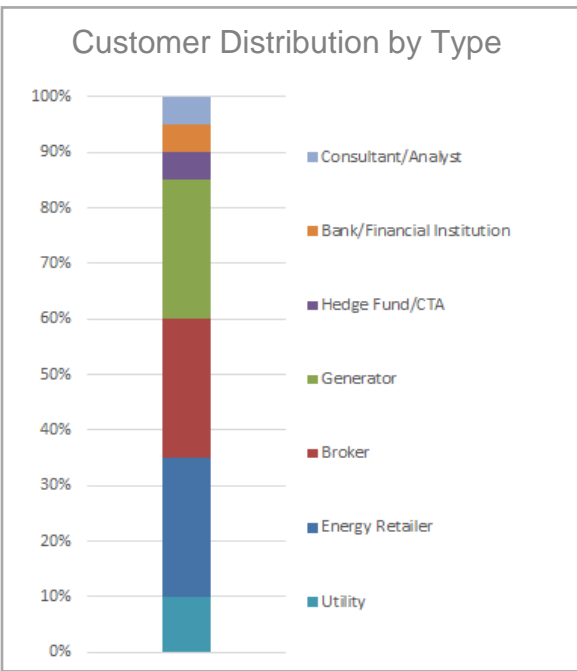
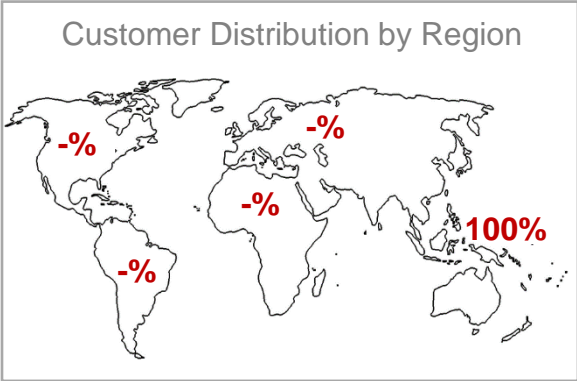
ENERGY ONE

L13, 77 Pacific Highway
North Sydney
NSW 2060, Australia

www.energyone.com.au

Product: **ETRM suite** Version: **v5**

K e y	Functionality is deployed and in production at a client site											Green					
	Not Deployed, but system is capable of providing functionality											Yellow					
Y	System is not currently capable of providing that functionality											Red					
	Not Applicable - Functionality not applicable for commodity											Grey					
		Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals	Emissions	Other Bulk	Freight Rates		
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	Canned Report																
	Ad hoc																
	Exec Dashboard																
	BI tools																



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Energy One has yet to show-up in ComTech's CTRM Vendor Perception Studies; however, given the company's growing market reach and coverage, we expect it will become increasingly visible and known in the future.

Company Description

The Energy One group is the leading provider of energy trading software and services to the Australian and New Zealand energy trading markets.

The company markets a "Wholesale Suite" of product modules that includes ETRM for multi-commodity deal capture and settlements, market analytics, comprehensive risk and valuation solutions.

Other products include physical market trading software (energy bidding, logistics, scheduling and trading for power and gas) as well as the EnergyFlow business process automation platform for automating data-rich tasks, transactions and spreadsheet-replacement processes.

The Company has 37 staff in 4 offices, the Energy One Group can offer product solutions for retailers, generators pipeline operators (TSOs) and traders of power, gas, oil and coal in both cloud and traditional deployments.


Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 20

Representative Clients – AGL, EnergyAustralia, Alinta, ERMPower, Meridian Energy

Office Locations and Phone

- ✓ Australia – Sydney 61 2 8925 9100
- ✓ Australia – Melbourne 61 3 8593 7556



ENERGYFLOW

Energy
Market
Automation

The simple way to replace your spreadsheets is **here now with EnergyFlow!**
Simple, reliable, cost effective platform to automate your data-intensive tasks and processes data gathering, emails, multi-system integration processes handled automatically and error-free **works well with legacy systems. EnergyFlow is the glue between your existing systems**

Example processes:
Nominations, scheduling, settlements, reconciliation, curve building, disparate system integration, timeseries data, complex calculations, transposing websites and emails and much more – all in one user configurable, cloud hosted, low cost software application from Energy One.

Enquiries: enquiries@energyone.com.au +44 (0)23 9282 2254

European sales: Dunstan Thomas Energy <http://www.dthomas.co.uk/contact.shtml>

energy one | **EnergyFlow** – automating energy commercial operations where your current systems run out of steam!

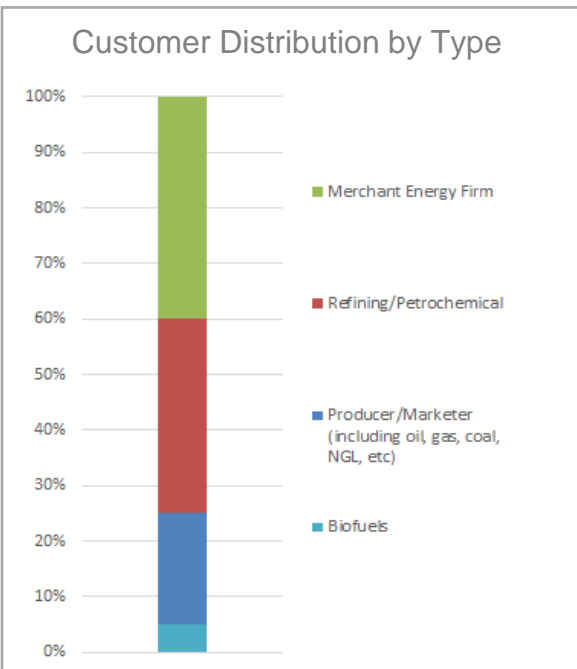
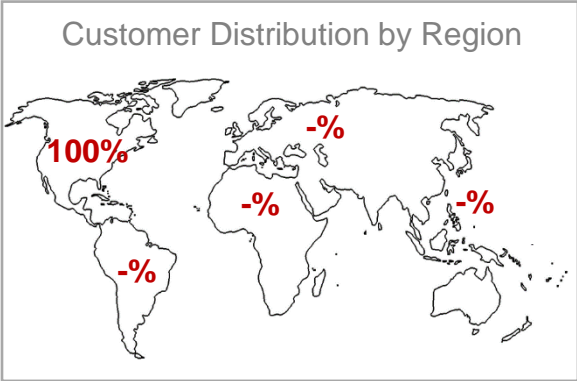
ENTERO CORPORATION

500, 1040 7TH Avenue SW
Calgary, Alberta
T2P 3G9

www.entero.com

Product: **Entero ONE** Version: **2017.xx**

K e y	Functionality is deployed and in production at a client site													█				
	Not Deployed, but system is capable of providing functionality													█				
Y	System is not currently capable of providing that functionality													█				
	Not Applicable - Functionality not applicable for commodity													█				
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ComTech Research Highlights

2016 CTRM Vendor Perception Report

Entero has yet to show-up in ComTech's CTRM Vendor Perception Studies; however, given the company's increasing growth outside of their traditional mid-stream North American market area, and their increasing functional reach and coverage, we expect it will become increasingly visible and known in the future in the ETRM markets.

Company Description

Founded in 1994, Entero develops software for the energy industry. Entero ONE (E1) is the third generation of Entero's legacy software platform, EnteroVision, and the system supports Natural Gas Liquids (NGL) and Oil and Gas midstream operators, marketers, and distributors. E1 manages multiple core functions, including trading and marketing, risk management, scheduling and logistics, production accounting, plant allocations, joint venture, and financial accounting. The breadth of experience and depth of functionality that E1 offers in a single solution for midstream companies is unparalleled.

By providing a single shared data structure that supports both operational and accounting requirements, E1 minimizes a lot of the systems integration, costly implementations, and ongoing maintenance that is typically associated with systems of this nature. Many competitor systems claim to support an end-to-end solution and oversimplify the issues, but E1 is the only product that successfully follows the molecule, to the component level, from field to financials.

A few unique differentiators about E1:

- Only system that manages the operations for all primary business functions, and simultaneously automates the accounting throughout to reduce the ongoing reconciliation work for exceptions and temporal differences (i.e. PPAs)
- Handles complexity that other systems can't (e.g. physical infrastructure, pricing, and taxes)
- Distinctly designed from the bottom up, with a flexible modeling tool to maximize configurability (regardless of company size)
- Clients can utilize the full system, rather than paying or implementing traditional modules. E1's single source code is configurable and eliminates the need for costly customization during implementation and product upgrades
- E1 helps companies unite key business functions in a single solution to deliver speed, quality of information, seamless processes, and immediate value

Entero ONE currently provides best-of-breed functionality for:

- | | |
|--|--|
| <ul style="list-style-type: none"> • Contract management • Complex formula prices • Scheduling, logistics, and fleet management • Inventory valuation (Activity Based Costing) • Profitability reporting • Mark to market reporting • Taxes and invoicing | <ul style="list-style-type: none"> • Accounts payable and receivables • General ledger and consolidated financial accounting • Plant allocations • Production, revenue & royalty accounting • Midstream fees and accounting • Fixed asset accounting • Joint venture accounting |
|--|--|

Delivery Methods – Traditional License, Hosted in Private Cloud, Monthly Rental

Number of Licensed Client Companies - 25

Representative Clients – Murex LLC, NGL Supply Co Ltd., Plains Midstream Canada

Office Locations and Phone

- ✓ Canada 1 403 261 1820

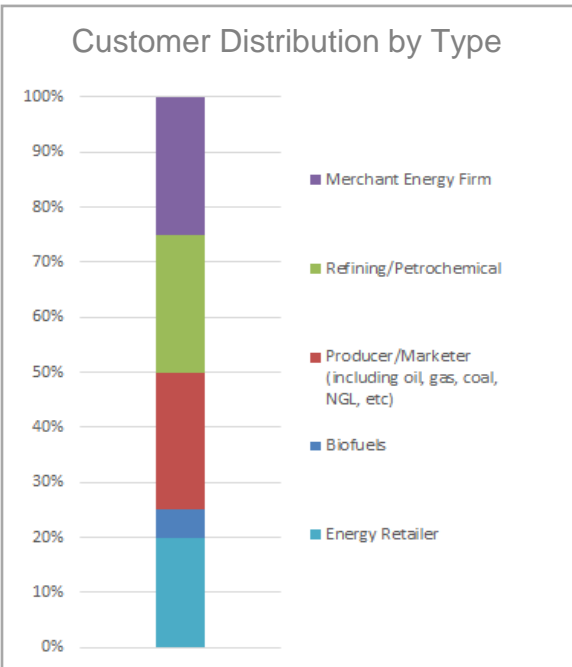
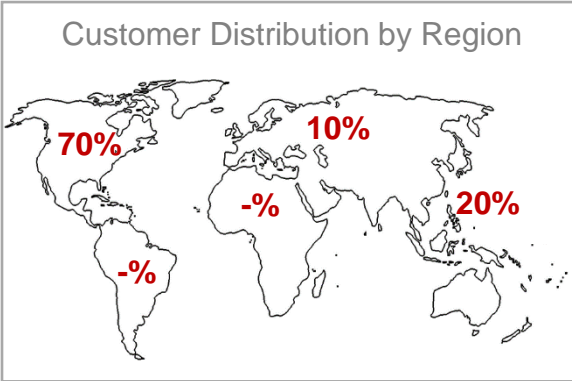
ENUIT, LLC

1001 Texas Avenue
 Suite 400
 Houston, TX 77002

www.enuit.com

Product: **Entrade** Version: **6**

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Enuit has yet to show-up in ComTech's CTRM Vendor Perception Studies; however, the company continues to grow its presence across multiple markets and geographies and we do expect the company will continue to become increasingly visible and known in the wider markets in the future.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions		Other Bulk	Freight Rates	
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Management																	
Production Operations																	
Volumetric Management																	
Net Back Pricing																	
DOI/Owner Balancing																	
Fractionation																	
Generation																	
Gas Gathering																	
Gas Processing																	
Retail Operations																	
Quality / Sampling																	
Contract Management																	
Credit Tracking																	
Curve Management																	
Portfolio Optimization																	
Supply-Demand Optimization																	
Pre-Deal Analytics "what if"																	
Trade Capture																	
Front Office / Trading																	
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Exchange																	
Deal Types																	
Spot & Forwards																	
Futures																	
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Credit Risk																	
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Mark to Market																	
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VaR - Other																	
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System Wide																	
Currency Conversion																	
Unit Conversion																	
Document Management																	
Reporting / Business Intelligence																	
Canned Report																	
Ad hoc																	
Exec Dashboard																	
BI tools																	

Company Description

Single Platform. Entrade is that elusive solution that the CTRM market has been in looking for. Entrade captures trades of all kinds (natural gas, NGLs, crude oil, and refined products) in a uniform fashion so that risk positions, credit, and P&L reporting can be aggregated together. Logistical functions are unique for each commodity to reflect the nuances of logistics in each commodity market.

The Product—Entrade

- Enter deals quickly using templates
- Handles both daily volumes and prices as well as date range-based volumes and prices
- Decomposes inherent trade risk based on curve hierarchy configuration.

Crude and Refined Products Scheduling & Logistics

- Matches receipts and deliveries by product, location, and delivery month
- Generates real-time physical positions report
- Tracks inventory subledgers and run-down reports
- FIFO, LIFO, or Moving Average methodology
- Breaks matched receipts and deliveries easily
- Captures primary and secondary fees, which follow the molecules

Natural Gas Scheduling & Logistics

- Displays physical positions in real-time
- Records all nominations easily, just like a spreadsheet
- Manages inventory & storage ratchet definitions.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 16

Representative Clients – PetroChina USA, China National Offshore Oil Corp., IGS, Texla, Alta Energy Mangement, BioUrja

Office Locations and Phone

✓ US 1 281 456 3690

Trade Finance

- Manages bank lines and letters of credit
- Records all bank fees

Out-of-Box Risk Management Features

- Price Risk (position) report
- Daily PNL attribution report
- PNL Summary showing daily, month-to-date, quarter-to-date, and year-to-date PNL.
- Option Models, VaR, and CFaR
- FX and unit of measure conversions
- Legal Entities, Books, and Strategies
- Proprietary credit scoring methodologies
- What-if scenarios and stress testing
- Trade “play” areas, called sandboxes

Producers

- Calculate netback prices for production marketing business units and create distribution networks to ease scheduling
- Lease-deal management
- Truck ticket management



Where Knowledge Meets Technology

Enterprise Risk Management for all commodities all in one application platform

Quick Implementations ♦ Intuitive Usability ♦ Deep Functionality ♦ Simple Support

www.enuit.com

+1.281.456.3690

info@enuit.com

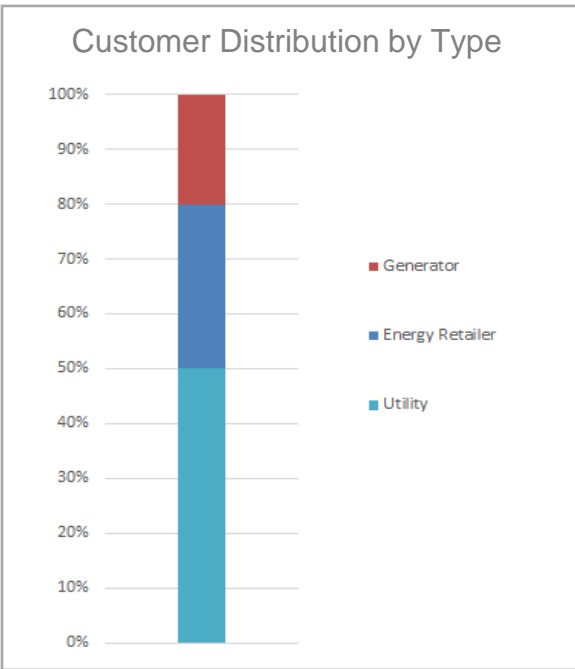
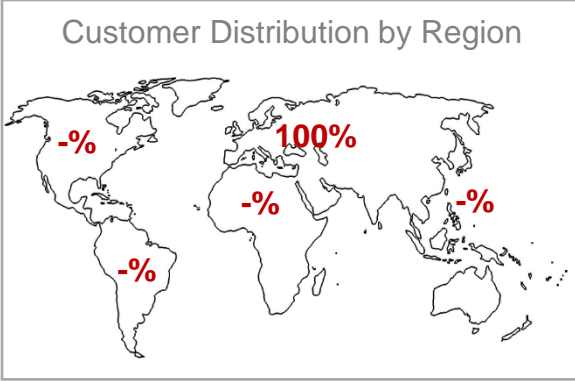
eZ-nergy

24 rue de l'Est
75020 Paris
France

www.ez-nergy.com

Product: **eZ-Operations** Version: **2.2**

K e y	Functionality is deployed and in production at a client site	
	Not Deployed, but system is capable of providing functionality	
	System is not currently capable of providing that functionality	
	Not Applicable - Functionality not applicable for commodity	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

eZ-nergy is a specialist power scheduling and balancing solutions provider in the European markets and as such is not as well known to respondents in other markets and regions covered by the 2016 CTRM Vendor Perception Report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates	
							BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious			North America
Production Operations																
Production Management																
Volumetric Management																
Net Back Pricing																
DOI/Owner Balancing																
Fractionation																
Generation																
Gas Gathering																
Gas Processing																
Retail Operations																
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VaR - Other																
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Currency Conversion																
Unit Conversion																
Document Management																
Reporting / Business Intelligence																
Canned Report																
Ad hoc																
Exec Dashboard																
BI tools																

Company Description

eZ-nergy provides scheduling and balancing IT solutions and 24/7 on behalf dispatching. eZ-nergy acts a neutral and independent service provider.

eZ-Operations:

- Full web application that enables energy market players to handle their logistics operations for balancing, scheduling and nomination. Nominations processes are fully automated and always up-to-date
- Users get a clear and business oriented of your balancing and matching status for both gas and power markets you are active on
- Opened positions can be automatically traded on exchanges such as EPEX or Powernext
- Handles power generation assets scheduling
- Connects to any type of ETRM solution
- REMIT reporting supported
- Large European coverage for both power and gas markets
- Quick set-up
- SAAS solution hosted by eZ-nergy

Delivery Methods – Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 40

Representative Clients – Direct Energie, NGF, In Commodities, Total

Office Locations and Phone

- ✓ France 0033 1 84 17 75 65

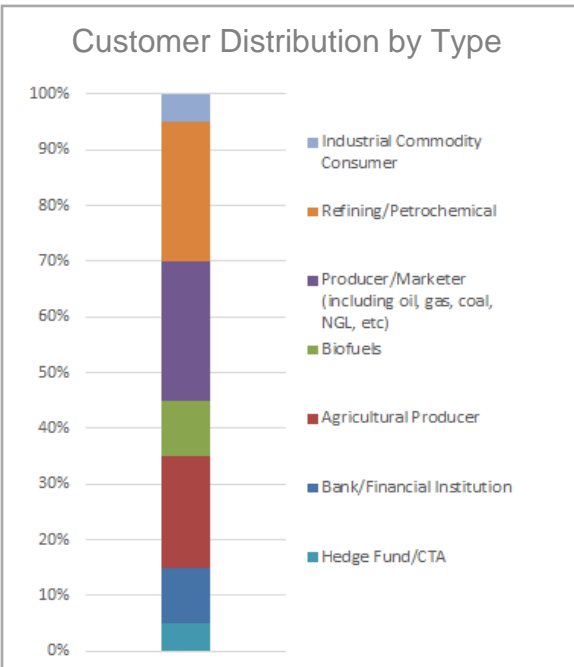
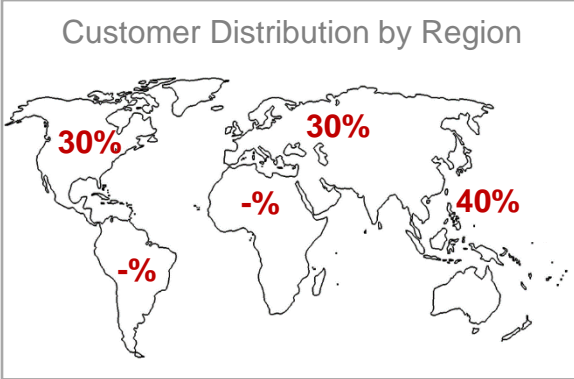
FENDAHL

Fendahl International DWC LLC
 Dubai World Center
 Dubai, UAE

www.fendahl.com

Product: **Fusion** Version: **2.2**

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Fendahl did not appear in any survey responses in the 2016 CTRM Vendor Perception Report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates	
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe
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BI tools																

Company Description

Fendahl is a specialist provider CTRM (commodity trading & risk management) software solutions to commodity trading organizations. A rapidly growing global software company we have a dedicated team of 85 staff with offices in the Americas, Asia, and EMEA, serving an ever growing global client base across multiple commodity segments. Fendahl offices are located in the London, UK; Houston, USA; Dubai, UAE and Nagpur, India.

Fendahl’s Fusion CTRM suite is leading the next generation of CTRM solutions, setting new standards for; ease of use, flexible functionality, end user performance, scalability, reliability, and provides the lowest cost of ownership in the industry.

Fusion helps clients in gaining a competitive advantage by allowing companies that trade in commodities to gain end-to-end business visibility and to make critical decisions, based on real-time information from data feeds and systems around the world.

Fusion is the only CTRM solution that delivers; CTRM functionality, market data management, and advanced business intelligence functionality within a single integrated modular software platform. This combination means that Fusion can meet the complex business requirements of most businesses without the need for expensive custom development or integration work.

The Fusion solution is designed to be an enterprise solution covering needs of front, middle, and back office. Fusion supports the entire lifecycle of a financial or physical commodity transaction, from deal execution through to cash settlement.

Our customers produce, refine, market, ship and trade globally. They rely on Fendahl’s expertise in these key physical and financial markets: Oil, Petrochemicals, Metals and Mining, Coal, Road Marine Fuels, Biofuels, and Agriculture/Softs.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 17

Representative Clients – Seaboard, Toptip, ClearSource, China Aviation Oil, Greenergy, Matloob Trading

Office Locations and Phone

- ✓ UK 44 (0) 203 503 0580
- ✓ US 1 832 390 2273



- Industry Specific Functionality
- Flexible Functionality to Match Business Processes
- Powerful Decision Support Tools & Visual Reporting
- Reliable & Cost Effective 24 Hour Support
- Lowest Cost of Ownership Industry Wide



**FUSION
CTRM**



information@fendahl.com www.fendahl.com UK : +44 (0)203 503 0580 US : +1 (832) 390 2273

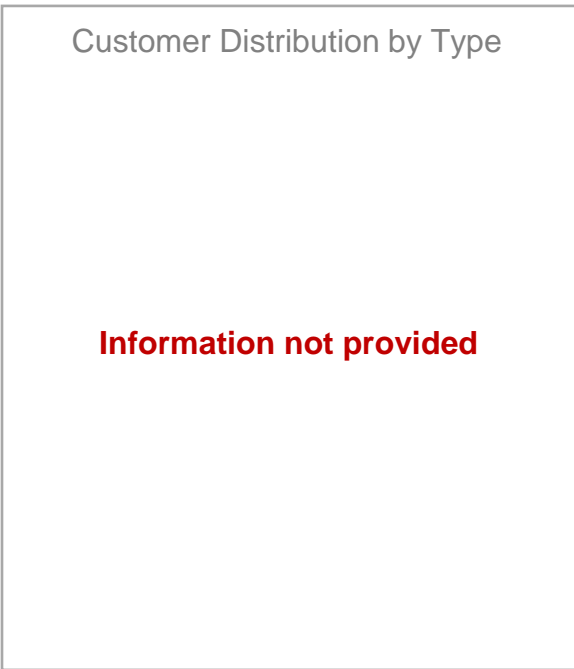
FIS

340 Madison Avenue
 7 Floor
 New York City, NY 10127

www.fisglobal.com/energy

Product: **FIS' Alligne** Version:

K e y	Functionality is deployed and in production at a client site	
	Not Deployed, but system is capable of providing functionality	
	System is not currently capable of providing that functionality	
	Not Applicable - Functionality not applicable for commodity	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

FIS is noted as #7 (tie) in Overall Market Leadership, #4 (tie) in all Energy Leadership, #3 in Power and #3 (tie) in Natural Gas. Additionally they are noted as #5 (tie) in Implementations, #6 (tie) in Technical Architecture, #3 in Risk Management and #5 (tie) in Single Platform for All Commodities.

Function / Feature	Power	Natural Gas	Crude	Crude Products	INGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates			
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
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Unit Conversion																		
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Reporting / Business Intelligence																		
Canned Report																		
Ad hoc																		
Exec Dashboard																		
BI tools																		

Company Description

FIS offers complete ETRM and CTRM offerings for physical and financial deals, complemented with “Beyond ETRM” capabilities such as market data, credit risk, accounting, treasury, pipeline and storage operations management, as well as managed application services, business process as a service, hosted and SaaS deployment options and post-trade derivatives processing utility.

FIS' Aligne is an ETRM solution suite that helps energy companies more efficiently and profitably trade and market energy, process transactions, manage risk, and optimize operational and financial decisions. Leveraging a service-oriented architecture, the platform is a configurable, modular and scalable solution. It integrates trading, risk and control, credit, scheduling, fuels procurement, emissions compliance, back-office and finance for straight-through processing of commodity transactions. Our recent or upcoming new offering launches:

- Aligne SaaS | Intraday Power Trading - real-time short-term power trading app in SaaS
- Aligne SaaS | Retail Express - gas trading, scheduling and Invoicing SaaS ETRM app for natural gas retailers
- Aligne SaaS | PipeOps Express – pipeline operation management in SaaS
- Aligne SaaS | Bulk Express – bulk commodity management by various transport modes, including quality analysis and inventory and pile management in SaaS
- BPaaS – Business Process as a Service for pipeline operators

FIS' solutions seamlessly integrate with each other as well as other ETRM platforms.

Delivery Methods – Traditional License, Hosted in Private Cloud, SaaS: Hosted in Private Cloud with Managed Services

Number of Licensed Client Companies – *Information not provided*

Representative Clients – *Information not provided*

Office Locations and Phone

- | | |
|---------------------------------|-----------------------------|
| ✓ Houston, TX US 1 713 210 8000 | ✓ Vienna AT 44 20 8081 2306 |
| ✓ London UK 44 20 8081 2000 | ✓ Tokyo JA 813 457 03000 |
| ✓ Frankfort, DE 49 6970 7680 | |

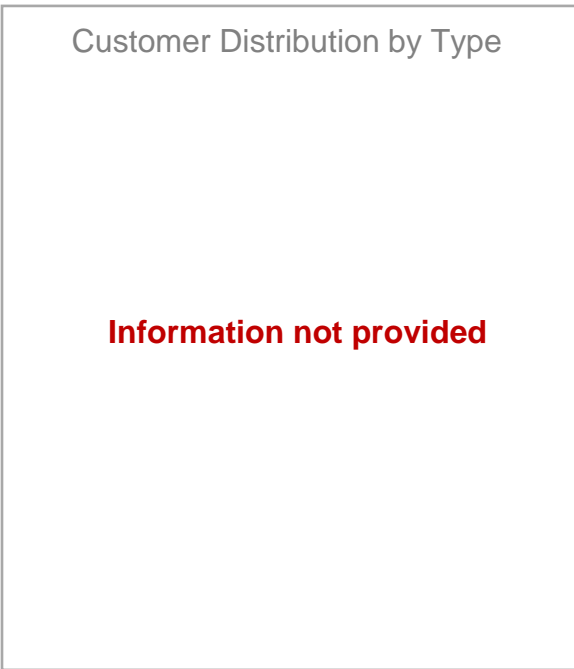
FIS

340 Madison Avenue
 7 Floor
 New York City, NY 10127

www.fisglobal.com/energy

Product: **FIS' Kiodex** Version:

Key	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

FIS is noted as #7 (tie) in Overall Market Leadership, #4 (tie) in all Energy Leadership, #3 in Power and #3 (tie) in Natural Gas. Additionally they are noted as #5 (tie) in Implementations, #6 (tie) in Technical Architecture, #3 in Risk Management and #5 (tie) in Single Platform for All Commodities.

Function / Feature	Power	Natural Gas	Crude	Crude Products	INGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates	
							BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Operations																
Production Management																
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Canned Report																
Ad hoc																
Exec Dashboard																
BI tools																

Company Description

FIS offers complete ETRM and CTRM offerings for physical and financial deals, complemented with “Beyond ETRM” capabilities such as market data, credit risk, accounting, treasury, pipeline and storage operations management, as well as managed application services, business process as a service, hosted and SaaS deployment options and post-trade derivatives processing utility.

FIS' Kiindex is a SaaS CTRM application that provides risk management and regulatory compliance solutions to firms trading energy and other commodities. Delivered over the web with independently produced end-of-day market data fully integrated out of the box, Kiindex enables energy traders, banks, industrials and hedge funds to understand their risk exposures and compliance status with regulatory limits. Our solution includes:

- Independently produced, monthly granular forward curves, volatility surfaces and correlations, enabling positions to be valued and compared to counterparty or internal valuations
- Industry standard pricing models, valuing a wide range of instruments including options of various types, and also accurately calculating market sensitivities through the Greeks
- Commodity specific dynamic models for simulating forward curves, producing accurate risk measures such as Value at Risk and Cash Flow at Risk
- Powerful cube reporting technology, enabling flexible drill down into risk results to produce reports most meaningful to the business;
- Real time trade capture and pricing, enabling calculation of positions, P&L, and margin requirements throughout the day, and comparison to exchange, regulatory and internal limits

FIS' solutions seamlessly integrate with each other as well as other ETRM platforms.

Delivery Methods –SaaS: Multi-Tenanted

Number of Licensed Client Companies – *Information not provided*

Representative Clients – *Information not provided*

Office Locations and Phone

- | | |
|---------------------------------|-----------------------------|
| ✓ Houston, TX US 1 713 210 8000 | |
| ✓ London UK 44 20 8081 2000 | ✓ Vienna AT 44 20 8081 2306 |
| ✓ Frankfurt, DE 49 6970 7680 | ✓ Tokyo JA 813 457 03000 |

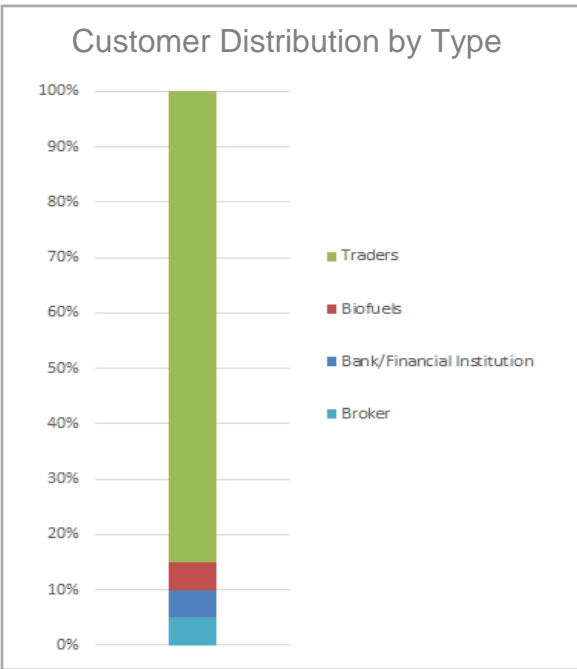
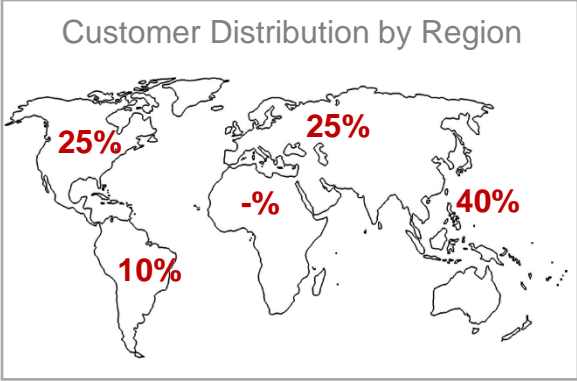
GENERATION 10

9 Princelet Street
 London E1 6QH

www.generation10.com

Product: Gen10 Commodity Manager Version: 4.07

K e y	Functionality is deployed and in production at a client site		Not Deployed, but system is capable of providing functionality		System is not currently capable of providing that functionality		Not Applicable - Functionality not applicable for commodity											
	Green	Yellow	Red	Grey	Red	Grey	Grey	Grey										
	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags	Metals	Emissions	Other Bulk	Freight Rates						
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
Production Operations	Function / Feature																	
	Production Management																	
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BI tools																		



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Generation 10 is a company with wide capabilities; however they are best known in the cotton, commodity insurance and softs markets. Though they are not well reported in the current 2016 CTRM Vendor Perception Report, the company is growing its market presence and we anticipate they will become more widely recognized across multiple markets in the near future.

Company Description

Generation 10 provides modular cloud-based and mobile software solutions to the comtech and fintech sectors. This web service-ready ecosystem of commodity supply chain software solutions integrates with all major ERP systems. It is commercially proven across over 20 commodities for various types of stakeholder. Established 17 years, Generation 10 provide solutions for traders, insurance companies, banks, inspection services, laboratories, producers, processors, warehouses, freight forwarders and agents.

In Com-tech, these solutions cover integrated CRM, planning, procurement, hedging, logistics, distribution, traceability, sustainability, quality, valuation and settlement through to marketing, e-commerce, marketplaces, client portals and risk management.

In Fin-tech, these same tools are applied to provide collateral and physical asset management as well as marine insurance policy and claims processing.

Workflow, metrics and interactive analytics are applied throughout. Their architecture handles bulk, lot and unit traceability, blending, grade variation and weight fluctuations and pricing. Collaboration, user experience, data integrity, control, visibility and flexibility are core design values.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud, Hosted in Public Cloud, Hybrid

Number of Licensed Client Companies – *Information not provided*

Representative Clients – Ecom, RCMA Group, Plexus, DR Wakefield, Intertek, Omnicotton

Office Locations and Phone

✓ UK 44 151 709 5

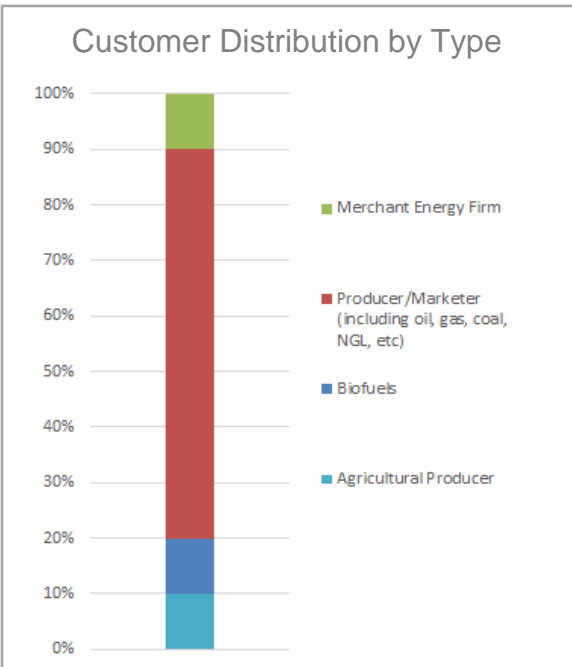
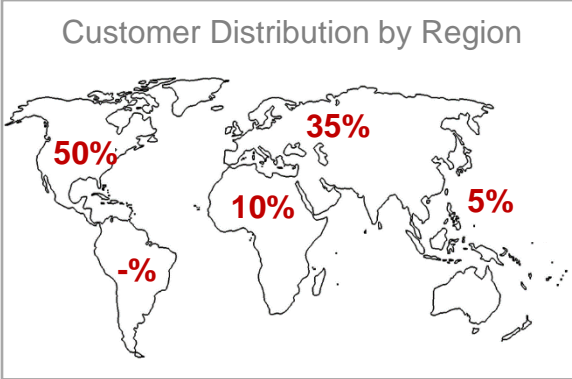
IGNITE ETRM LLC

14785 Preston Road
 Suite 550
 Dallas, TX 77240

www.ignite-etrm.com

Product: **InterConnect** Version: **4.6.2**

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Ignite ETRM did not appear in the 2016 CTRM Vendor Perception Report. However, with a growing global client base, we do anticipate they will appear in future editions of the report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Frieght Rates	
							BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Management																
Volumetric Management																
Net Back Pricing																
DOI/Owner Balancing																
Fractionation																
Generation																
Gas Gathering																
Gas Processing																
Retail Operations																
Quality / Sampling																
Contract Management																
Credit Tracking																
Curve Management																
Portfolio Optimization																
Supply-Demand Optimization																
Pre-Deal Analytics "what if"																
Trade Capture																
Physical																
Financial																
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Transportation																
Storage/Inventory																
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Hedge Effectiveness																
Analytics																
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VaR - Other																
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PaR/EaR																
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Stress Testing																
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Currency Conversion																
Unit Conversion																
Document Management																
Reporting / Business Intelligence																
Canned Report																
Ad hoc																
Exec Dashboard																
BI tools																

Company Description

Ignite ETRM's core business is Energy Trading and Risk Management (ETRM) software. Ignite has also been recently recognized in the Energy Risk Software Rankings 2017 as a top 5 Best Cloud Based CTRM/ETRM Systems and within the Fintech Capital community as one of the upcoming Energy and Commodities Trading technologies.

Originally designed by Natural Gas trading and IT professionals, Ignite's team is composed of seasoned energy, commodities and technical experts familiar with C/ETRM best practices. Developed using Microsoft SQL Server and .Net technologies, the Ignite framework provides a very familiar look and feel reminiscent of Microsoft-based products. This familiarity greatly reduces the learning curve for a user and allows for rapid deployment and implementation to help get organizations up and running quickly.

Ignite ETRM's comprehensive trading platform supports multiple commodities and currencies, and provides real-time valuation, scheduling, and settlement of their business. Repeated tasks are streamlined using pre-populated templates for multi-commodity input including all financial-based derivatives. The company's core market is small to mid-sized energy and commodity related companies (petroleum, NGLs, natural gas, coal, agricultural/softs, transportation and food and beverage).

Ignite ETRM offers seamless integration to ERP General Ledger systems including, but not limited to, SAP, Microsoft Navision, Oracle JD Edwards, and Excalibur; as well as price reporting agencies, and data management software and exchanges such as PLATTS, Argus, ICE, Reuters, Brokers and NYMEX.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 10

Representative Clients – North Bay Energy (US), Element Alpha SA (EUR)

Office Locations and Phone

✓ US 1 817 812 29280

✓ London 44 203 755 3289

✓ Netherlands 31 854 444 949

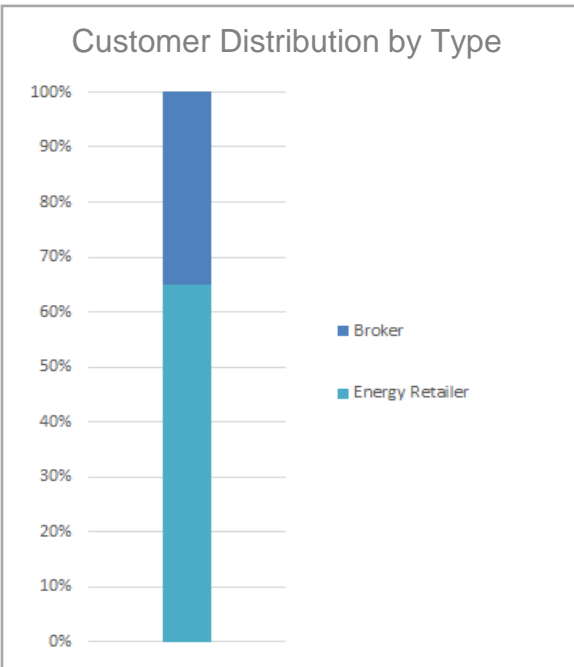
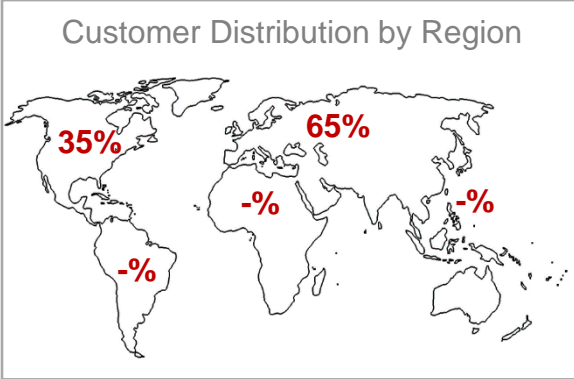
INATECH

3 Shortlands
Hammersmith
London, UK W6 8DA

www.inatech.com

Product: **Techoil** Version: **1.3**

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Inatech, owned by Glencore, is a fairly new entrant to the CTRM market place and is currently focused in continuing to develop their presence in the Oil and Products markets. As such, they did not appear within the responses received in the 2016 CTRM Vendor Perceptions Report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Management																	
Production Operations																	
Volumetric Management																	
Net Back Pricing																	
DOI/Owner Balancing																	
Fractionation																	
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Gas Gathering																	
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Contract Management																	
Credit Tracking																	
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Portfolio Optimization																	
Supply-Demand Optimization																	
Pre-Deal Analytics "what if"																	
Trade Capture																	
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VaR - Other																	
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Stress Testing																	
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Fair Value Disclosure																	
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Currency Conversion																	
Unit Conversion																	
Document Management																	
Reporting / Business Intelligence																	
Canned Report																	
Ad hoc																	
Exec Dashboard																	
BI tools																	

Company Description

Inatech is a global provider of cloud ETRM and fuel management software for the physical oil trading and marine industries.

As part of Glencore's Oil division, Inatech benefits from their knowledge and expertise in oil trading, hedging and management of the entire oil supply chain from exploration and production to retail and distribution.

They combine best-of-breed cloud technologies with their in-depth industry expertise to enable companies to integrate, automate and optimise business processes, driving efficiency and revenue growth. Their customers benefit from an international delivery model that provides the competitive edge needed to thrive in today's dynamic markets.

About Techoil

Techoil ETRM is an integrated end-to-end cloud software product for the oil trading industry. Techoil ETRM helps organisations streamline trading, hedging, credit, cash flow, operations and inventory. It assists in managing risk and operating complex integrated supply chains for crude products, distillates, petrochemicals and bunkers.

Techoil is an integrated ETRM system with pre-integrated ERP for physical oil traders. Developed using Inatech's extensive knowledge and experience of the oil market, Techoil is an off-the-shelf and flexible product that easily integrates with other risk management tools such as VaR Reports, Portfolio sensitivity, with back-office applications and market data engines through standard APIs.

Delivery Methods – SaaS: Multi-Tenanted, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 5

Representative Clients – Chemlube, Ocean Connect Marine, Alchemist, Gulf Coast Commodities

Office Locations and Phone

- ✓ London 44 20 3609 8617
- ✓ Dubai 971 4375 8494

- ✓ US (Houston) 1 510 936 8827
- ✓ India 91 44 4282 9000
- ✓ Singapore

Techoil *ETRM*

A Powerful Integrated System for Physical Oil Traders

- Trade Capture - Spot/contracts
- Hedge market risks
- Inventory management with reconciliation and reporting capabilities
- Credit & counterparty risk analysis
- Pre-integrated ERP for physical oil traders
- Standard and user defined delivery models
- Physical trade PNL & pricing forecast

For more information:

www.techoil.com
+44 (0)20 3609 8617
info@inatech.com

Powered by
INATECH
A GLENCORE Company

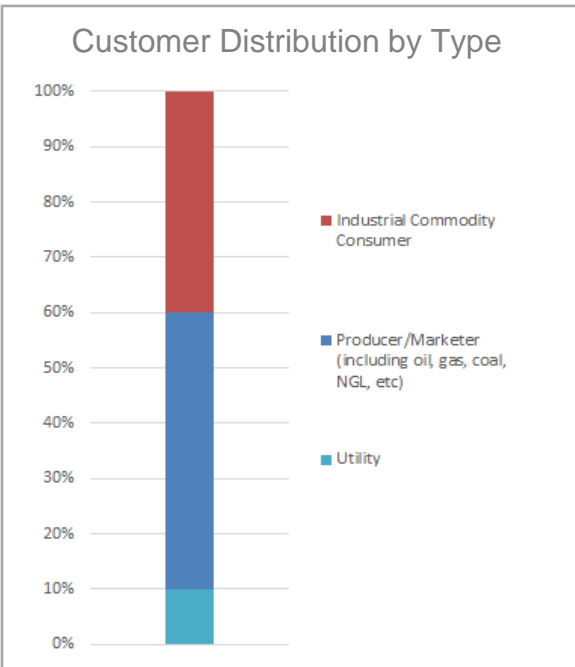
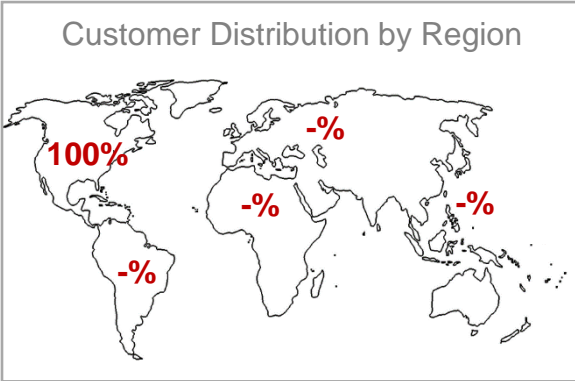
INSTANEXT, INC.

1501 SE Walton Blvd.
 Suite 207
 Bentonville, AR 72712

www.instanext.com

Product: **InstaNext Platform** Version: **6**

K e y	Functionality is deployed and in production at a client site	
	Not Deployed, but system is capable of providing functionality	
	System is not currently capable of providing that functionality	
	Not Applicable - Functionality not applicable for commodity	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

InstaNext has not previously appeared in the CTRM Vendor Perception Report; however, given the scale of their customer reach, we do expect they will appear in future research.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates			
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
Production Management																		
Volumetric Management																		
Net Back Pricing																		
DOI/Owner Balancing																		
Fractionation																		
Generation																		
Gas Gathering																		
Gas Processing																		
Retail Operations																		
Quality / Sampling																		
Contract Management																		
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Portfolio Optimization																		
Supply-Demand Optimization																		
Pre-Deal Analytics "what if"																		
Trade Capture																		
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Unit Conversion																		
Document Management																		
Reporting / Business Intelligence																		
Canned Report																		
Ad hoc																		
Exec Dashboard																		
BI tools																		

Company Description

The InstaNext platform offers a host of commodity management modules with various capabilities. The platform is primarily offered as a cloud hosted service, but can be installed on site if preferred.

The InstaNext Trading and Risk module allows for capturing physical and financial deals, workflows, computing mark to market, sensitivity analysis, and enables end user adhoc reporting.

The InstaNext Coverage Analysis module give users the ability to capture forecast requirements and automatically analyze their outstanding contracts and hedges against those forecasts. InstaNext Coverage Analysis gives businesses the tools to accurately project costs, revenues, and margins into the future while keeping track of their covered and uncovered exposures.

The Invoicing & Accounting modules track invoices and payments, as well as generating accounting entries that can be posted directly to a GL system.

The Bill of Material module comes with all the tools needed to create and manage multi-level manufacturing BOMs and incorporate a company's hedging program in order to analyze and apply scenario analysis to future product cost projections.

The InstaNext Advanced Reporting module can be used to create executive dashboards with KPIs and/or standard PDF style reports for disclosures and other detailed analytics.

Delivery Methods – Traditional License, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 20

Representative Clients – Campbell Soup Company, Bonavista Energy Corporation, Newfield Exploration

Office Locations and Phone

✓ US 1 855 900 9192

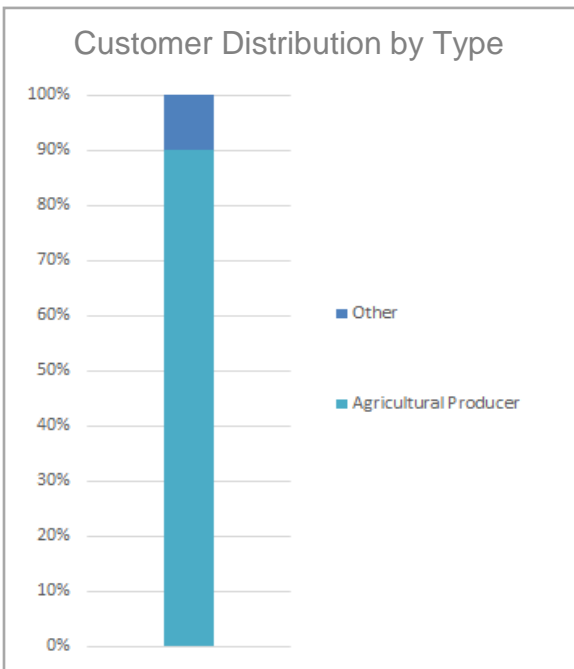
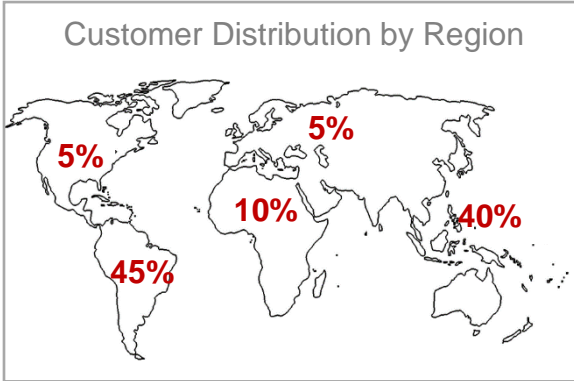
INVENSOFTECHNOLOGIES

232, 2ND Floor, 12th Main, 2nd Cross
 RBI Layout, J.P. Nagar 7th Phase
 Bangalore, 560075 India

www.invensoft.co.in

Product: **INVENSOFTECHNOLOGIES** Version: **9.0.0.0**

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Invensoft has not to date shown up in ComTech's vendor perception study; however, we do cover the company and we expect it will become increasingly visible and known in the future.

Function / Feature	Power	Natural Gas	Crude	CrudeProducts	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Management																	
Production Operations																	
Production Management																	
Volumetric Management																	
Net Back Pricing																	
DOI/Owner Balancing																	
Fractionation																	
Generation																	
Gas Gathering																	
Gas Processing																	
Retail Operations																	
Quality / Sampling																	
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Credit Tracking																	
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Supply-Demand Optimization																	
Pre-Deal Analytics "what if"																	
Trade Capture																	
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Exchange																	
Deal Types																	
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Unit Conversion																	
Document Management																	
Reporting / Business Intelligence																	
Canned Report																	
Ad hoc																	
Exec Dashboard																	
BI tools																	

Company Description

Invensoft Technologies is an Information Technology service Company providing Commodity Management software solutions for global businesses in Agricultural Commodities, Metals, Minerals, Ores and Concentrates. Since year 2000, with a continuous focus on the Commodity Industry and in depth domain knowledge, Invensoft is supporting top global commodity companies including Fortune 500 companies in over Ten Commodity origins including Asia, Africa and Latin America, covering India, Indonesia, China, Vietnam, Kenya, Uganda, Peru, Mexico, Honduras and Colombia.

Invensoft-XBS® offers separate product verticals, built to address specific Business needs of Origination, 3rd Party Warehousing-Logistics and Commodity Trading business. XBS Mobile Apps enables mobile business capability. All the products are available on Cloud or Customer’s own infrastructure.

Invensoft-XBS® Commodity Management is a comprehensive Commodity Management system for origin business with out of the box localization for over Nine Commodity Origins. Elaborate features are offered covering Procurement, Quality Management, Processing, Warehousing, Certification, Traceability, Trading, Hedging, Risk Management, Positions, Exposures, Daily P&L and reporting.

Invensoft-XBS® Commodity Warehousing and 3PL provides innovative features for commodity 3rd party warehousing, processing services and logistics business covering commodity intake, quality management, warehousing, collateral management, processing, packing, container stuffing and shipping. Innovative “Customer Center” module enables customers, bankers to be a part of business process.

Invensoft-XBS® CTRM provides end to end features for commodity trade risk management involving in Contract Management, Trade Management, Warehousing, Traceability, Hedging, Risk Management, Positions, Counter party Exposures, Daily P&L and reporting.

Invensoft-XBS® Mobile Apps provides a seamless information access across devices. Be it in office or on field, you can always be at the fore front of information access and business control. Users can access information on commodity stock position, intakes, shipments and approve purchases and sales contracts on the go.

Mobile Apps are available on iPhone and Android for Invensoft-XBS® CM and Invensoft-XBS® CW3PL systems.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud, Hosted in Public Cloud, Customer based models

Number of Licensed Client Companies - 18

Representative Clients – Louis Dreyfus Commodities, Neumann Kaffe Gruppe, Molenbergnaite, NedCoffee, Monsanto, Bero Coffee

Office Locations and Phone

✓ India 91 80 416 68 087



Contact us for More Information:

Enquiry: sales@invensoft.co.in



Web: www.invensoft.co.in



Invensoft-XBS® Commodity Management: Most extensive Commodity Management Solution for Origins. Out of the box implementation with localization for over nine Commodity Origins. With Bi-directional traceability and sustainability certificate management, origins companies can have all the features in one solution.

Invensoft-XBS® Commodity Warehousing and 3PL: Most innovative Commodity Warehouse focused solution for providers of commodity warehousing services and 3rd party logistics. Stake holder integration and transparency to banks, excel your warehousing business.

Invensoft-XBS® CTRM: Commodity trade risk management for commodity trade. Available on cloud for small to medium trading firms.

We Support Customers in *Over Ten Commodity Origins*. India, Vietnam, Indonesia, China, Singapore, Uganda, Kenya, Peru, Colombia, Mexico and Honduras.

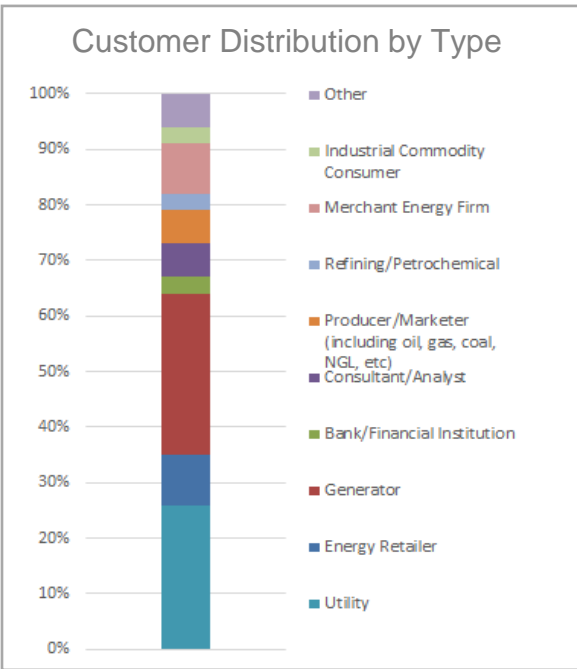
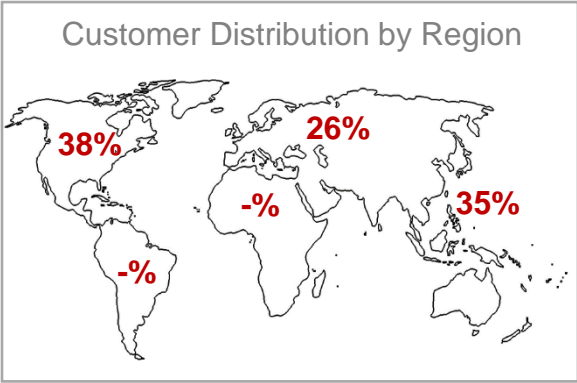
LACIMA

1 Berkeley Street
 London
 W1J 8DJ

www.lacimagroup.com

Product: **Lacima Analytics** Version: **8.4**

K e y	Functionality is deployed and in production at a client site														Green			
	Not Deployed, but system is capable of providing functionality														Yellow			
y	System is not currently capable of providing that functionality														Red			
	Not Applicable - Functionality not applicable for commodity														Grey			
		Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions		Other Bulk	Freight Rates	
									BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Operations	Function / Feature																	
	Production Management																	
	Volumetric Management																	
	Net Back Pricing																	
	DOI/Owner Balancing																	
	Fractionation																	
	Generation																	
	Gas Gathering																	
	Gas Processing																	
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Quality / Sampling																		
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	Curve Management																	
	Portfolio Optimization																	
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	Pre-Deal Analytics "what if"																	
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Risk Management and Analysis	Credit Risk																	
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	Regulatory Reporting																	
	Settlement																	
	Actualization																	
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	Currency Conversion																	
	Unit Conversion																	
	Document Management																	
	Reporting / Business Intelligence																	
Canned Report																		
Ad hoc																		
Exec Dashboard																		
BI tools																		



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Lacima is widely recognized as global leader in specialized risk management and analytics. Their risk management product, Lacima Analytics, was noted as the #4 leader in Risk Management in the 2016 CTRM Vendor Perception Report.

Company Description

Lacima is a multi-award winning specialist provider of software and advisory services dedicated to trading, valuation, optimization and risk management for global energy and commodities markets. It's solutions help organisations to maximize their profit potential and make better informed decisions by providing tools that yield more accurate valuations, hedging analysis and risk exposure analysis for portfolios of financial contracts and physical assets.

For 5 consecutive years, Lacima has been recognised by market players in the Energy Risk software rankings as being the #1 analytics vendor globally. Lacima has also been named by Energy Risk as Analytics Provider of the Year (2015), Technology House of the Year (2013) and Advisory Firm of the Year (2008).

Lacima Analytics is the only commercially available single application for valuation, optimization and risk management for multi-commodity/ multi-geography and/or multi-asset portfolios. The Lacima Trader suite of products for Front Office are designed to work as stand-alone trading and valuation tools capable of transparent drill down to detailed outputs and value drivers. The Lacima Trader products interface seamlessly with the same numerics engine used by Lacima Analytics allowing portfolio level analysis and a consistent approach between trading and risk management. There are a range of products available within Lacima Trader including Storage, Simulation, Pricer and Curve.

Clients of Lacima's software and services include trading, structuring, origination, valuation and risk teams in vertically integrated energy companies, energy retailers, financial institutions and large energy consumers in Europe, North America and Australasia.

Lacima's internationally acclaimed approach stems from leading academic work in energy risk and valuation modelling by Lacima founders Dr Les Clewlow and Dr Chris Strickland. The models and methodologies from their published works form the foundation of, not only Lacima's software and services, but also many in-house development projects worldwide.

For further information, visit www.lacimagroup.com or email info@lacimagroup.com.

Delivery Methods – Traditional License

Number of Licensed Client Companies - 34

Representative Clients – Caltex, PSEG, Intergen, Scottish and Southern Energy, Energy Australia, AGL

Office Locations and Phone

- ✓ UK 44 (0)20 3755 5017
- ✓ US 1 303 926 4940

- ✓ Australia 61 (0)2 8320 7440

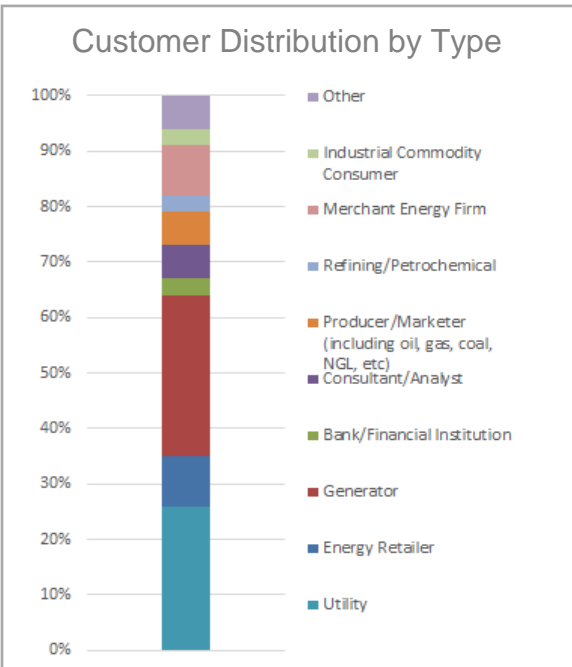
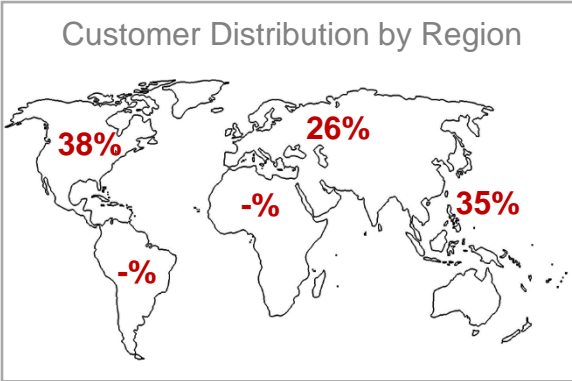
LACIMA

1 Berkeley Street
 London
 W1J 8DJ

www.lacimagroup.com

Product: **Lacima Trader** Version:

K e y	Functionality is deployed and in production at a client site	
	Not Deployed, but system is capable of providing functionality	
	System is not currently capable of providing that functionality	
	Not Applicable - Functionality not applicable for commodity	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Lacima is widely recognized as global leader in specialized risk management and analytics. Their risk management product, Lacima Analytics, was noted as the #4 leader in Risk Management in the 2016 CTRM Vendor Perception Report.

Their newest product, Lacima Trader, has only recently launched and as such has not been noted in the CTRM Vendor Perception Report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Management																	
Production Operations																	
Volumetric Management																	
Net Back Pricing																	
DOI/Owner Balancing																	
Fractionation																	
Generation																	
Gas Gathering																	
Gas Processing																	
Retail Operations																	
Quality / Sampling																	
Contract Management																	
Credit Tracking																	
Curve Management																	
Portfolio Optimization																	
Supply-Demand Optimization																	
Pre-Deal Analytics "what if"																	
Trade Capture																	
Physical																	
Financial																	
Exchange																	
Deal Types																	
Spot & Forwards																	
Futures																	
Swaps																	
Options																	
Swaptions																	
Transportation																	
Storage/Inventory																	
Position Management																	
Physical																	
Financial																	
Credit Risk																	
Hedge Effectiveness																	
Analytics																	
Mark to Market																	
VaR - Monte Carlo																	
VaR - Other																	
Greeks																	
PaR/EaR																	
CVaR																	
Portfolio Sensitivity Anal.																	
Stress Testing																	
Simulations																	
Fair Value Disclosure																	
Vessel Freight Risk																	
Insurance																	
Inventory Management																	
Scheduling and Logistics																	
Power Transmission																	
North America																	
Europe																	
Pipeline																	
Barge																	
Rail																	
Truck																	
Vessel																	
Supply Chain Management																	
Regulatory Reporting																	
Settlement																	
Actualization																	
Invoicing																	
Settlements/Reconciliation																	
Taxation																	
AR																	
AP																	
General Ledger																	
Currency Conversion																	
Unit Conversion																	
Document Management																	
Reporting / Business Intelligence																	
Canned Report																	
Ad hoc																	
Exec Dashboard																	
BI tools																	

Company Description

Lacima is a multi-award winning specialist provider of software and advisory services dedicated to trading, valuation, optimization and risk management for global energy and commodities markets. Its solutions help organisations to maximize their profit potential and make better informed decisions by providing tools that yield more accurate valuations, hedging analysis and risk exposure analysis for portfolios of financial contracts and physical assets.

For 5 consecutive years, Lacima has been recognised by market players in the Energy Risk software rankings as being the #1 analytics vendor globally. Lacima has also been named by Energy Risk as Analytics Provider of the Year (2015), Technology House of the Year (2013) and Advisory Firm of the Year (2008).

Lacima Analytics is the only commercially available single application for valuation, optimization and risk management for multi-commodity/ multi-geography and/or multi-asset portfolios. The Lacima Trader suite of products for Front Office are designed to work as stand-alone trading and valuation tools capable of transparent drill down to detailed outputs and value drivers. The Lacima Trader products interface seamlessly with the same numerics engine used by Lacima Analytics allowing portfolio level analysis and a consistent approach between trading and risk management. There are a range of products available within Lacima Trader including Storage, Simulation, Pricer and Curve.

Clients of Lacima's software and services include trading, structuring, origination, valuation and risk teams in vertically integrated energy companies, energy retailers, financial institutions and large energy consumers in Europe, North America and Australasia.

Lacima's internationally acclaimed approach stems from leading academic work in energy risk and valuation modelling by Lacima founders Dr Les Clewlow and Dr Chris Strickland. The models and methodologies from their published works form the foundation of, not only Lacima's software and services, but also many in-house development projects worldwide.

For further information, visit www.lacimagroup.com or email info@lacimagroup.com.

Delivery Methods – Traditional License

Number of Licensed Client Companies – Newly Launched Product

Representative Clients – NA

Office Locations and Phone

- ✓ UK 44 (0)20 3755 5017
- ✓ US 1 303 926 4940

- ✓ Australia 61 (0)2 8320 7440

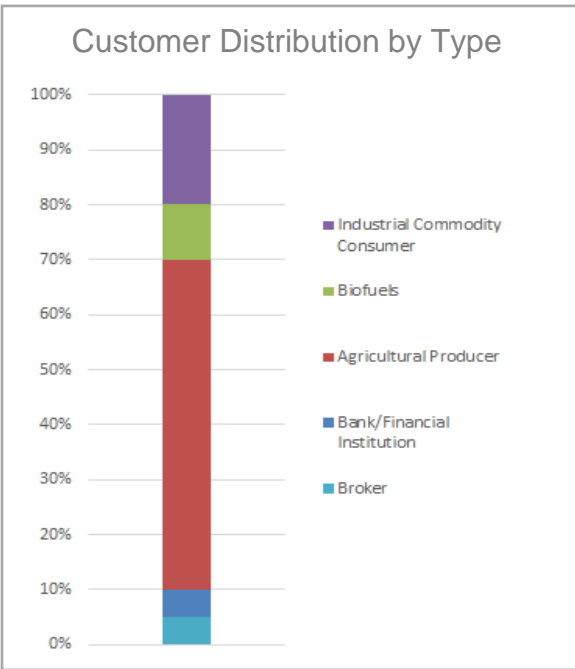
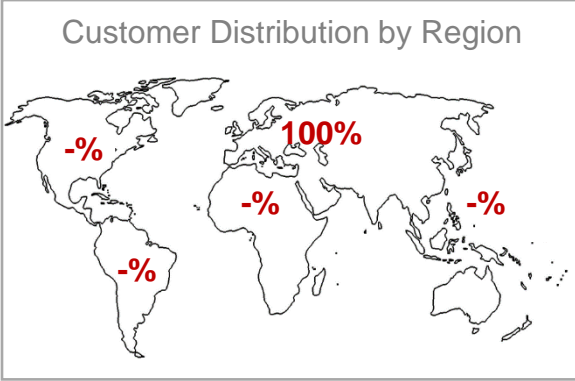
LOGAVIV

14 place George Pompidou
 93160 Noisy Le Grand
 France

www.logaviv.com

Product: **WPRIOP** Version: **4.14**

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

LOGAVIV has not previously been mentioned by respondents to our CTRM Vendor Perceptions Study.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other/Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates			Precious	North America
Production Operations																	
Production Management																	
Volumetric Management																	
Net Back Pricing																	
DOI/Ownership																	
Fractionation																	
Generation																	
Gas Gathering																	
Gas Processing																	
Retail Operations																	
Quality / Sampling																	
Front Office / Trading																	
Contract Management																	
Credit Tracking																	
Curve Management																	
Portfolio Optimization																	
Supply-Demand Optimization																	
Pre-Deal Analytics "what if"																	
Trade Capture																	
Physical																	
Financial																	
Exchange																	
Deal Types																	
Spot & Forwards																	
Futures																	
Swaps																	
Options																	
Swaptions																	
Transportation																	
Storage/Inventory																	
Position Management																	
Physical																	
Financial																	
Risk Management and Analysis																	
Credit Risk																	
Hedge Effectiveness																	
Analytics																	
Mark to Market																	
VaR - Monte Carlo																	
VaR - Other																	
Greeks																	
PaR/EaR																	
CVaR																	
Portfolio Sensitivity Anal.																	
Stress Testing																	
Simulations																	
Fair Value Disclosure																	
Vessel Freight Risk																	
Insurance																	
Middle Office																	
Inventory Management																	
Scheduling and Logistics																	
Power Transmission																	
North America																	
Europe																	
Pipeline																	
Barge																	
Rail																	
Truck																	
Vessel																	
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Invoicing																	
Settlements/Reconciliation																	
Taxation																	
AR																	
AP																	
General Ledger																	
System Wide																	
Currency Conversion																	
Unit Conversion																	
Document Management																	
Reporting / Business Intelligence																	
Canned Report																	
Ad hoc																	
Exec Dashboard																	
BI tools																	

Company Description

LOGAVIV, drawing on over 20 years' experience in the ags commodities sector, started developing CTRM solutions as soon as the first NYSE-EURONEXT commodities contracts emerged. WPRIOP is a Portfolio & Price Risk Management Software that allows to manage and monitor a complete trading portfolio composed of: physical and derivative contracts including Futures, Swaps, Structured Products, Options, Basis contract...

Target markets: agricultural coop, trading companies, importers, exporters, industrial and financial institutions. Over these last 20 years, LOGAVIV has continuously developed its WPRIOP application, to make an efficient and innovative solution for checking the risk level attached to your operations at any given time.

WPRIOP integrates a powerful mark-to-market valuation system, synthetic or detailed dashboard capabilities, graphical and reporting functions. Graphical functions give a foreknowledge of what will be your P&L, Delta, Margin and other Greeks for any case of market variations scenario (prices, volatilities and time). In order to adapt to each company risk management framework, the software configuration and settings can be personalized without any computer-programming skills. The LOGAVIV risk management solution is now composed of different elements interconnected: WPRIOP, CleaX and My Report.

The main purpose of WPRIOP is to help traders to take the best trading decision giving them the possibility to get easily the information they want on their portfolio and the impact of any hypothetical action on it.

In a different interface, CleaX allows operators to control and validate their portfolio; capture trade directly from the clearer; estimate treasury risk thanks to integrated SPAN calculation capacity. My Report is a business intelligence tool linked to WPRIOP too. My Report allows you to exploit your data from WPRIOP. You have the possibility to automatically historize and back up your data, and to compare them.

According to the company needs, each solution (WPRIOP/CleaX/My Report) can be used independently or together. To solve double entry issue, companies have also the possibility to connect WPRIOP to their main information system. The interconnections of several systems dedicated for different application provide several advantages: fast implementation, flexibility and security, competitive costs and fast evolution.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted

Number of Licensed Client Companies - 51

Representative Clients – Vivescia, Axereal, Tereos Syral

Office Locations and Phone

✓ France 00 33 1 53 99 19 19

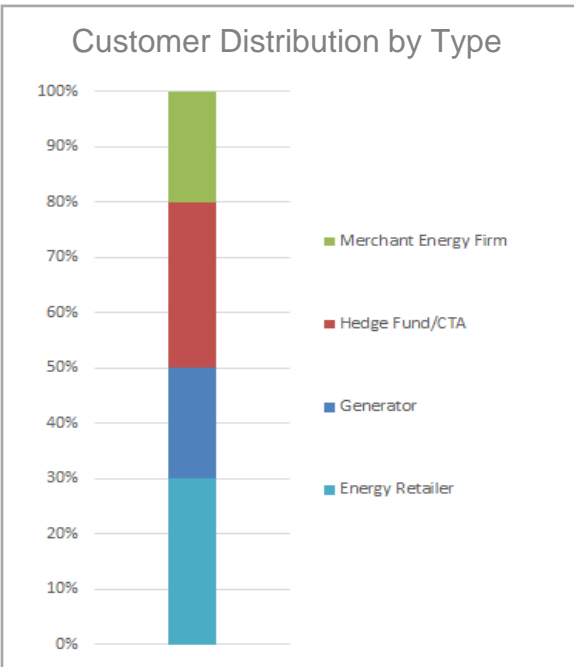
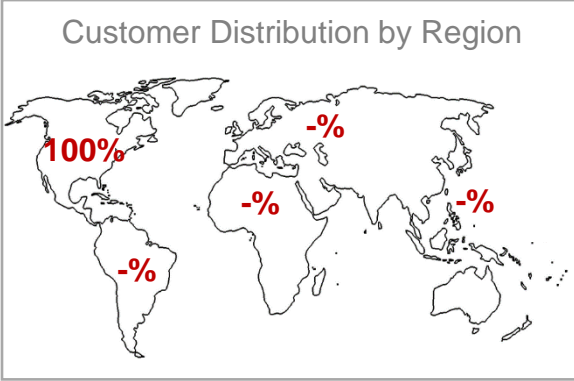
MOLECULE SOFTWARE

1113 Vine Street
 Suite 200
 Houston, TX 77002

www.molecule.io

Product: **Molecule** Version:

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Molecule is a fairly recent entrant into the CTRM markets with somewhat limited geographic and market coverage. However, the company was noted in the Top 10 for Implementation Leadership, Cloud Delivery and Technical Architecture in the 2016 CTRM Vendor Perception Report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Management																	
Production Operations																	
Volumetric Management																	
Net Back Pricing																	
DOI/Owner Balancing																	
Fractionation																	
Generation																	
Gas Gathering																	
Gas Processing																	
Retail Operations																	
Quality / Sampling																	
Contract Management																	
Credit Tracking																	
Curve Management																	
Portfolio Optimization																	
Supply-Demand Optimization																	
Pre-Deal Analytics "what if"																	
Trade Capture																	
Physical																	
Financial																	
Exchange																	
Deal Types																	
Spot & Forwards																	
Futures																	
Swaps																	
Options																	
Swaptions																	
Transportation																	
Storage/Inventory																	
Position Management																	
Physical																	
Financial																	
Risk Management and Analysis																	
Credit Risk																	
Hedge Effectiveness																	
Analytics																	
Mark to Market																	
VaR - Monte Carlo																	
VaR - Other																	
Greeks																	
PaR/EaR																	
CVaR																	
Portfolio Sensitivity Anal.																	
Stress Testing																	
Simulations																	
Fair Value Disclosure																	
Vessel Freight Risk																	
Insurance																	
Middle Office																	
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Invoicing																	
Settlements/Reconciliation																	
Taxation																	
AR																	
AP																	
General Ledger																	
System Wide																	
Currency Conversion																	
Unit Conversion																	
Document Management																	
Reporting / Business Intelligence																	
Canned Report																	
Ad hoc																	
Exec Dashboard																	
BI tools																	

Company Description

Molecule lets risk and operations managers at commodities trading companies go home earlier, by automating routine tasks and complex calculations. It is next-generation P&L, near-time VaR, position, and risk analytics software for any company that trades commodities. The software is designed for electricity, natural gas, crude, liquids, metals, ags, softs, FX, and equities swaps, forwards, options, and futures.

Molecule uses the latest enterprise software technology to make the risk system light, fast, and easy-to-use – a first in the industry. The company was started with the idea that multi-million-dollar technology should be more awesome than the 99-cent apps you use on your phone.

As a true cloud product, customers get more data security and reliability while enjoying a SaaS pricing model and regular product upgrades with no interruption to service.

Integrations can be completed in less than 90-days – from start-to-finish. There are no additional integration fees or consultants required to use Molecule.

Once up and running on Molecule, customers have access to:

- Automatic deal capture
- Automatic end-of-day market data
- Automatic position, P&L, near-time VaR, and risk
- Advanced and custom reporting with an embedded BI tool
- Automatic FCM reconciliation
- Connections to multiple exchanges and market data providers
- Fund allocations

Based in Houston, Texas, the Molecule team serves hedge funds, physical trading companies, and some of the largest financial services institutions in the world. Sitting at the intersection of bleeding-edge tech, finance, the commodities industry, operations, and design, you probably won't find a team anywhere else that has that sort of experience blended together to give customers easy-to-use, bullet-proof software.

Delivery Methods – SaaS: Multi-Tenanted

Number of Licensed Client Companies – *Information not provided*

Representative Clients – *Information not provided*

Office Locations and Phone

- ✓ US 1 832 464 4037

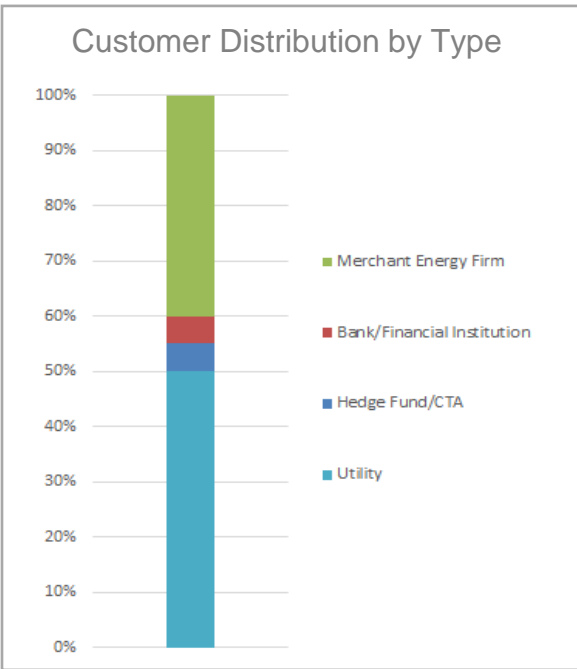
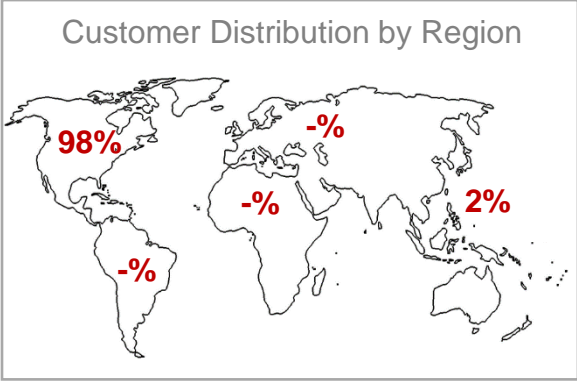
OATI

3660 Technology Drive NE
 Minneapolis, MN 55418
 USA

www.oati.com

Product: **webTrader Enterprise** Version: **8.3**

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Key	Functionality is deployed and in production at a client site																
Key	Not Deployed, but system is capable of providing functionality																
Key	System is not currently capable of providing that functionality																
Key	Not Applicable - Functionality not applicable for Commodity																
Production Operations																	
Production Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Volumetric Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Net Back Pricing	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
DOI/Owner Balancing	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Fractionation	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Generation	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Gas Gathering	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Gas Processing	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Retail Operations	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Quality / Sampling	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Contract Management																	
Contract Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Credit Tracking	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Curve Management	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Portfolio Optimization	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Supply-Demand Optimization	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Pre-Deal Analytics "what if"	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Trade Capture																	
Physical	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Financial	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Exchange	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Deal Types																	
Spot & Forwards	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Futures	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Swaps	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Options	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Swaptions	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Transportation	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Storage/Inventory	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Position Management																	
Physical	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Financial	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Risk Management and Analysis																	
Credit Risk	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Hedge Effectiveness	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Analytics																	
Mark to Market	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
VaR - Monte Carlo	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
VaR - Other	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Greeks	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
PaR/EaR	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
CVaR	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Portfolio Sensitivity Anal.	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Stress Testing	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Simulations	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Fair Value Disclosure	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Vessel Freight Risk	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Insurance	Green	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Inventory Management																	
Scheduling and Logistics																	
Power Transmission	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
North America	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Europe	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Pipeline	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Barge	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Rail	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Truck	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Vessel	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Supply Chain Management																	
Regulatory Reporting																	
Settlement																	
Actualization																	
Invoicing																	
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General Ledger																	
System Wide																	
Currency Conversion																	
Unit Conversion																	
Document Management																	
Reporting / Business Intelligence																	
Canned Report																	
Ad hoc																	
Exec Dashboard																	
BI tools																	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

OATI is recognized as a long term provider of cloud delivered solutions for the North American gas and power markets. The company was noted as #3 in Overall Market Leadership, #3 in Energy Leadership and #4 in Power. Additionally, the company was noted as #2 in Cloud Delivery, #3 in Implementations and was in the Top 10 in Risk Management.

As the company continues to expand their market reach, we anticipate their presence in the report will increase in the future.

Company Description

OATI is a leading provider of Commodity Trading and Risk Management (CTRM), Smart Grid, Transmission Scheduling, Congestion Management, and Market Management products and services. OATI specializes in deploying complex, mission-critical Software as a Service (SaaS) solutions committed to various commodity industry standards and stringent NERC CIP guidelines.

OATI is headquartered in Minneapolis, Minnesota, with offices in California, India, and Singapore. The OATI webTrader Enterprise solution is designed for asset-centric and trading-focused companies, capturing physical and financial, multi-commodity transactions, modeling and valuing assets, assessing real-time credit and market risk, and supporting settlement processes. OATI's Commodity Trading and Risk Management solutions are used by more than 70 North American and Asian entities, including utilities, power marketers, investment banks, and hedge funds.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud

Number of Licensed Client Companies – 70+

Representative Clients – Arizona Public Service Company, Tristate Generation and Transmission, Keppel Electric (Singapore)

Office Locations and Phone

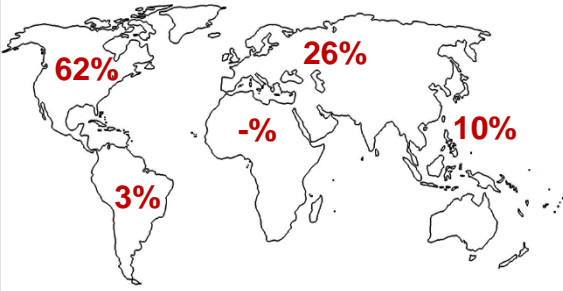
✓ US +1 763 201 2000

OPENLINK

1502 RXR Plaza
15th Floor – West Tower
Uniondale, NY 11556

www.openlink.com

Customer Distribution by Region



Customer Distribution by Type

Information not provided

ComTech Research Highlights

2016 CTRM Vendor Perception Report

OpenLink is a global scale provider of CTRM solutions and is one of the most recognized names in ComTech's 2016 CTRM Vendor Perceptions Study. The company is noted as #1 in Overall Market Leadership, Overall Energy, Natural Gas (tie), Power and Oil & Products leadership.

OpenLink is also #3 (tie) in Implementation leadership, #3 (tie) in Ags and Softs, #2 (w/o RightAngle) in Bulk, #2 in Base and Precious Metals, #1 in Single Platform, #5 (tie) in Cloud, #3 in Implementations, #2 in Technical Architecture, #1 in Risk Management and #2 in Commodity Management.

Product: **Endur**

Version: **V16**

K e y	Functionality is deployed and in production at a client site															
	Not Deployed, but system is capable of providing functionality															
y	System is not currently capable of providing that functionality															
	Not Applicable - Functionality not applicable for commodity															
Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates	
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe
Production Management																
Volumetric Management																
Net Back Pricing																
DOI/Owner Balancing																
Fractionation																
Generation																
Gas Gathering																
Gas Processing																
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Canned Report																
Ad hoc																
Exec Dashboard																
BI tools																

Company Description

Founded in 1992, OpenLink (www.openlink.com) has provided leading-edge technology solutions to an increasingly diverse client base. Building on its pioneering development of cross-asset trading and risk management products for energy and financial services companies, it now offers a suite of solutions, including treasury solutions, designed to meet the specific needs of clients within three broad categories: Energy, Commodities and Financial Services.

Owned by leading private equity investment firm Hellman & Friedman, OpenLink is a global software and services business that has grown both organically and through strategic acquisitions, to achieve revenues in excess of \$300 million. With 600+ clients around the world, OpenLink's solutions are preferred by the leading energy and commodity companies, financial services firms, multinational corporations and commodity-intensive corporates, public utilities, hedge funds and central banks.

OpenLink's suite of integrated, configurable and extensible solutions can help facilitate improved efficiency, better use of capital and greater risk-awareness around business decision making.

Endur: A complete front-to-back office commodities trading and risk management (CTRM) solution covering the full range of commodities and derivatives. Physical commodity logistics and scheduling tools are built into the solution. With automated processing of both physical transactions and financial derivatives, it provides aggregated physical-to-financial view of positions, risk and P&L on one system.

Delivery Methods – Traditional License, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies – 600+ (all products)

Representative Clients – Shell, BP, Centrica, Gazprom, Enbridge, Etihad Airways

Office Locations and Phone

- | | |
|-----------------------------------|-----------------------------|
| ✓ US (HQ) 1 516 227 6600 | ✓ UK London 44 20 7382 1920 |
| ✓ US New York City 1 212 641 8787 | ✓ Singapore 65 6593 0800 |
| ✓ US Houston 1 832 783 8500 | |

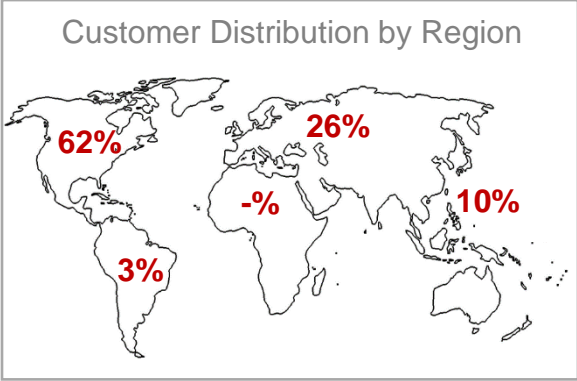
OPENLINK

1502 RXR Plaza
15th Floor – West Tower
Uniondale, NY 11556

www.openlink.com

Product: **RightAngle** Version: **S15**

K e y	Functionality is deployed and in production at a client site													Not Deployed, but system is capable of providing functionality													System is not currently capable of providing that functionality													Not Applicable - Functionality not applicable for commodity												
y	Ags													Metals			Emissions			Other Bulk	Freight Rates																															
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BI tools																																																				



Customer Distribution by Type

Information not provided

ComTech Research Highlights

2016 CTRM Vendor Perception Report

OpenLink is a global scale provider of CTRM solutions and is one of the most recognized names in ComTech's 2016 CTRM Vendor Perceptions Study. The company is noted as #1 in Overall Market Leadership, Overall Energy, Natural Gas (tie), Power and Oil & Products leadership.

OpenLink is also #3 (tie) in Implementation leadership< #3 (tie) in Ags and Softs, #2 (w/o RightAngle) in Bulk, #2 in Base and Precious Metals, #1 in Single Platform, #5 (tie) in Cloud, #3 in Implementations, #2 in Technical Architecture, #1 in Risk Management and #2 in Commodity Management.

Company Description

Founded in 1992, OpenLink (www.openlink.com) has provided leading-edge technology solutions to an increasingly diverse client base. Building on its pioneering development of cross-asset trading and risk management products for energy and financial services companies, it now offers a suite of solutions, including treasury solutions, designed to meet the specific needs of clients within three broad categories: Energy, Commodities and Financial Services.

Owned by leading private equity investment firm Hellman & Friedman, OpenLink is a global software and services business that has grown both organically and through strategic acquisitions, to achieve revenues in excess of \$300 million. With 600+ clients around the world, OpenLink's solutions are preferred by the leading energy and commodity companies, financial services firms, multinational corporations and commodity-intensive corporates, public utilities, hedge funds and central banks.

OpenLink's suite of integrated, configurable and extensible solutions can help facilitate improved efficiency, better use of capital and greater risk-awareness around business decision making.

RightAngle: A comprehensive Commodities and Risk Management solution, supporting front to back office workflow from physical and financial deal capture to risk position reporting, logistics, settlement and accounting. With straight through processing of trading and supply transaction information on a single, unified platform that provides an aggregated, real-time volumetric and financial view of positions and risk.

Delivery Methods – Traditional License, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies – 600+ (all products)

Representative Clients – Shell, BP, Centrica, Gazprom, Enbridge, Etihad Airways

Office Locations and Phone

- | | |
|-----------------------------------|-----------------------------|
| ✓ US (HQ) 1 516 227 6600 | ✓ UK London 44 20 7382 1920 |
| ✓ US New York City 1 212 641 8787 | ✓ Singapore 65 6593 0800 |
| ✓ US Houston 1 832 783 8500 | |

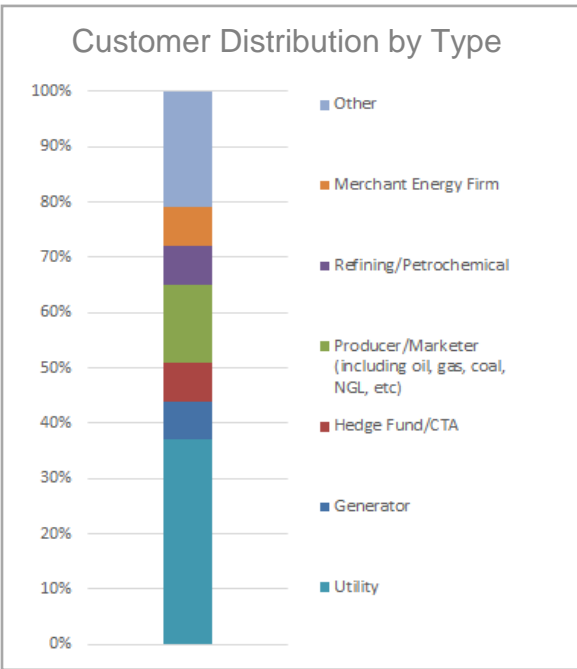
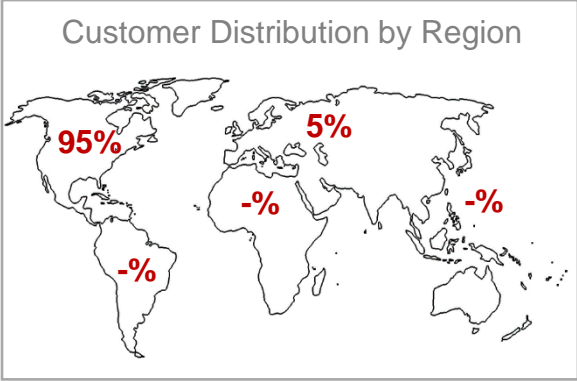
PARAGON ENERGY SOFTWARE CORPORATION

20333 State Hwy 249, Suite 310
Houston, TX 77042

www.paragonenergysoftware.com

Product: **Paragon CRMS** Version: **4.1**

K e y	Functionality is deployed and in production at a client site											Green							
	Not Deployed, but system is capable of providing functionality											Yellow							
y	System is not currently capable of providing that functionality											Red							
	Not Applicable - Functionality not applicable for commodity											Grey							
		Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates			
									BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
Production Management																			
Production Operations	Production Management																		
	Volumetric Management																		
	Net Back Pricing																		
	DOI/Owner Balancing																		
	Fractionation																		
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	Gas Processing																		
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Exec Dashboard																			
BI tools																			



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Paragon has recently released new ETRM capabilities to complement their industry leading credit risk management solution. As such, they do not appear in the results of the most recent CTRM Vendor Perception Report.

Company Description

Since 2006, Paragon has provided comprehensive energy solutions to the energy industry and developed a strong reputation for delivering comprehensive, advanced, and easy to use solutions in credit risk management and the broader trading and risk management arena.

It has been selected by some of the largest multi-commodity service and trading companies in the energy industry due to its reputation for superior customer service, commitment, and ability to deliver quality products at a compelling price.

Paragon's experienced staff has a proven track record and strong reputation for energy industry expertise and ability to deliver as promised. Paragon's software has a reputation for being fully functional out of the box, easily configurable, efficiently implemented, and well supported. Supporting successful companies that are 100% referenceable is important to Paragon's future success.

That is what sets Paragon apart in this complex, dynamic, and highly volatile industry.

Delivery Methods – Traditional License, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 14

Representative Clients – *Information not provided*

Office Locations and Phone

- ✓ US 1 832 604 6919
- ✓ UK 44 (0) 207 07 87 485

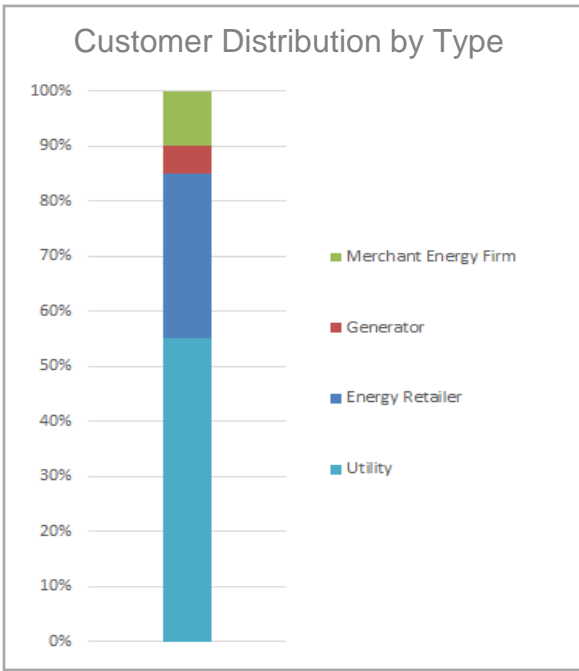
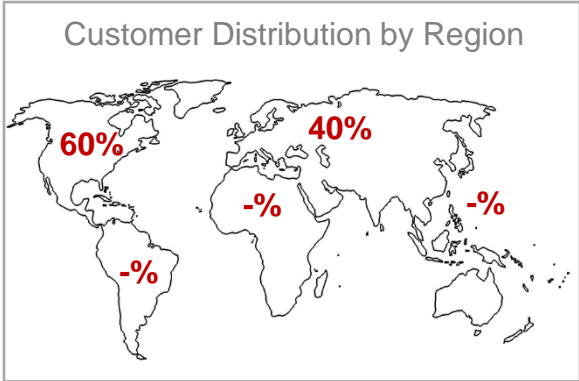
PIONEER SOLUTIONS GLOBAL

7400 E Orchard RD, Suite 170
 Greenwood Village, CO 80111

www.pioneersolutionsglobal.com

Product: **TRMTracker** Version: **4**

K e y	Functionality is deployed and in production at a client site															Green			
	Not Deployed, but system is capable of providing functionality															Yellow			
y	System is not currently capable of providing that functionality															Red			
	Not Applicable - Functionality not applicable for commodity															Grey			
		Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions		Other Bulk	Freight Rates		
									BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
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	Canned Report																		
Ad hoc																			
Exec Dashboard																			
BI tools																			



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Pioneer ranked #6 (tie) in Implementation and #6 (tie) in Cloud Platform Leadership according to the respondents in the most recent CTRM Vendor Perception Report.

Company Description

Pioneer Solutions is a global provider of award-winning C/ETRM, environmental management and financial and regulatory compliance solutions. Since 2003, Pioneer has been serving some of the largest energy companies, utilities and midstream producers in the US and Europe. Pioneer's innovative and flexible solutions have been organically built for rapid implementation and superior services at an overall lower cost of ownership.

Pioneer's suite of TRM solutions are based on its web-based FARRMS platform and offer comprehensive front, middle, and back office process management for both physical and financial trades of all asset classes and commodity types. Developed from the back to the front, resulting in industry-leading data processing and reporting capability, Pioneer's modern easy-to-use applications deliver ready "out-of-the-box" or tailored functionality designed for ease of implementation and integration with existing systems.

With a user-configurable environment for less reliance on vendor services, and with deployment options including a true-cloud solution, Pioneer offers a fresh alternative to legacy C/ETRM systems.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Public Cloud

Number of Licensed Client Companies – *Information not provided*

Representative Clients – Xcel Energy, PNM, Consumers Energy, Essent, RWE

Office Locations and Phone

- ✓ US (Denver) 1 303 758 3780
- ✓ Netherlands (Rotterdam) 31 6 832 094 04

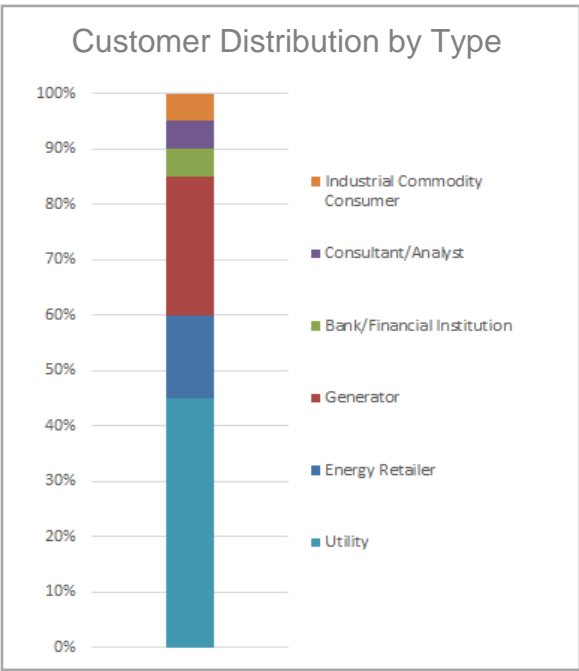
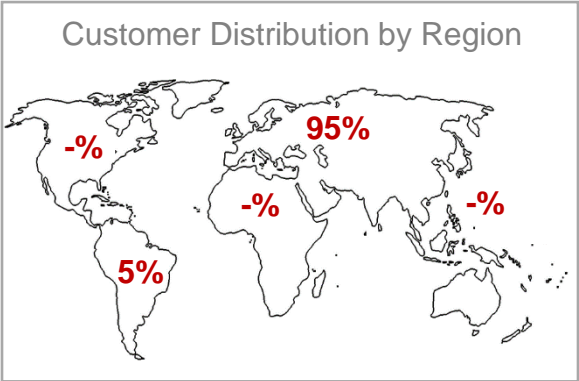
POWEL AG

Peter Merian-Strasse 90
CH-4052 Basel
Switzerland

www.powel.com

Product: **Smart Energy Suite** Version: **5**

K e y	Product: Smart Energy Suite Version: 5																	
	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals	Emissions						
Y	Functionality is deployed and in production at a client site																	
	Not Deployed, but system is capable of providing functionality																	
	System is not currently capable of providing that functionality																	
	Not Applicable - Functionality not applicable for commodity																	
Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	Other Bulk	Freight Rates
Production Operations	Production Management																	
	Volumetric Management																	
	Net Back Pricing																	
	DOI/Owner Balancing																	
	Fractionation																	
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Middle Office	Credit Risk																	
	Hedge Effectiveness																	
	Analytics																	
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	VaR - Monte Carlo																	
	VaR - Other																	
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	PaR/EaR																	
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Back Office	Stress Testing																	
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Document Management																		
Reporting / Business Intelligence																		
Canned Report																		
Ad hoc																		
Exec Dashboard																		
BI tools																		



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Powel AS has not been noted by respondents of our CTRM Vendor Perceptions Study.

Company Description

Powel AS, headquartered in Trondheim, Norway, delivers business-critical software solutions and related services specifically designed to help energy companies and public utilities improve daily operational processes and service quality. Powel is a market leader in power generation optimization, cross-border trading, smart metering, grid maintenance, and water management solutions. Founded in 1996, Powel is a privately held company with more than 480 employees. Powel AG in Switzerland is the competence center for European power and gas trading and logistic solutions.

Powel helps companies extract more value from their complex energy assets and portfolios using its expertise in optimization, modelling and solution development. It has a more than 20-year history of helping customers monitor, forecast, optimize and manage their complex portfolios of energy assets and trades using its Smart Energy suite of software. Its customers significantly benefit from increased business agility, flexibility, optimization of resources, reduced costs and higher profits.

Powel's Smart Energy suite of software delivers comprehensive solutions for production planning and optimization, trading, forecasting, settlement, position management, risk management, logistics and nominations, all on a common, modular and fully integrated platform. Big data- and time series management are at the heart of the solution providing advanced decision support and analytics.

The increasing importance of renewable generation makes it imperative that energy companies are able to plan, forecast, optimize and deliver ever closer to real-time. Powel's solutions include comprehensive coverage of renewables and hydropower in particular, ensuring that its customers efficiently manage all aspects of optimizing their assets and trading portfolios from forecast to dispatch. Powel's DeltaXE cross-border trading and logistics solution has the most comprehensive European power and gas market coverage in the industry.

Powel DeltaXE is an all-in-one trading and logistics solution for energy and gas markets. Due to its modularity and configurability, this market communication solution can be fully integrated with external E/CTRM trading systems. Powel experience and expertise in cross-border trading and logistics is embedded in a software solution that is able to operate in most European energy markets and many gas markets out-of-the-box, without the need for any software development.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies – More than 50

Representative Clients – Statkraft, Vattenfall, E.ON, TrailStone, ewz, SWM

Office Locations and Phone

- | | |
|---------------------------------|--------------------------|
| ✓ Norway 0047 73 80 45 00 | ✓ Denmark 0045 7070 7404 |
| ✓ Switzerland 0041 61 270 84 40 | ✓ Chile 0056 9974 351 81 |
| ✓ Sweden 0046 36 34 49 00 | |

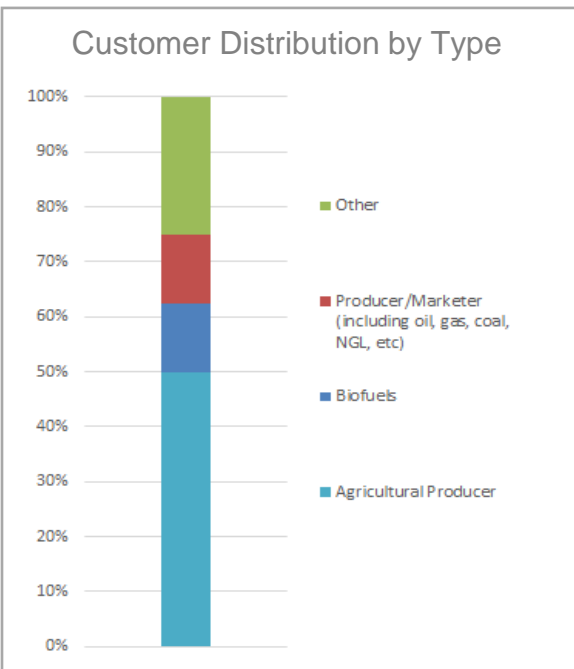
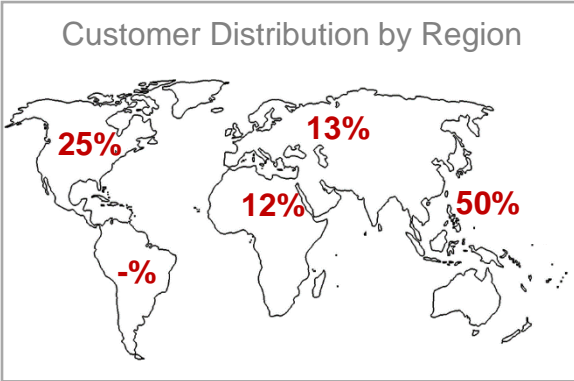
RISK EDGE SOLUTIONS P Ltd

301, NSIC Business Park
 ECIL, Hyderabad
 Telangana, India 5000062

www.riskedgesolutions.com

Product: Risk Edge Version: 4.5

Key Value	Functionality is deployed and in production at a client site.	Green
	Not Deployed, but system is capable of providing functionality.	Yellow
	System is not currently capable of providing that functionality.	Red
	Not Applicable - Functionality not applicable for Commodity.	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Risk Edge is a relatively new specialist risk management solutions provider and as such, has not appeared in the CTRM Vendor Perception Report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates			
								Bio Fuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
Production Management																		
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Production Management																		
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Currency Conversion																		
Unit Conversion																		
Document Management																		
Reporting / Business Intelligence																		
Canned Report																		
Ad hoc																		
Exec Dashboard																		
BI tools																		

Company Description

Risk Edge provides Advanced Risk & Predictive Analytics Solutions to medium and large Energy and Commodity Companies. Its products are used by many users globally for measuring market & credit risks, and for predicting prices, demand, supply, yields and even sentiment analysis. It builds all its solutions using sophisticated algorithms and delivers at high speed using parallel processing capabilities.

There are 3 primary areas which Risk Edge delivers to its clients:

1. **Market & Credit Risk:** RiskEdge goes beyond vanilla VaR (Value-at-Risk) methods and calculates Greeks and Expected Shortfall (or Conditional VaR) for positions and portfolios which allow its users deeper insights into business. Proprietary measures like ERR (Excess Risk Ratio) help companies assess their risks with a longer term backdrop. It covers all Deal Types (Physicals, Basis, Futures, Forwards, Options, Swaps) and uses full-revaluation method to calculate risks on vanilla and structured derivatives. Potential Future Exposure (PFE) and CVA (Credit Value Adjusted) based models allow RiskEdge clients to assess the losses in case of counterparty default. Risk Edge also provides consulting in these domain areas of Market and Credit Risk.

2. **Derivative Pricing:** Its open derivative pricing platform (www.derivist.com) is part of its large library of structured derivative pricing algorithms. The library uses over 100 different algorithms, allowing clients to price any kind of structured / exotic derivative product using multiple valuation methods. The same platform also hosts its Sentiment analysis tool, using which Risk Edge was able to correctly predict Brexit and Trump win.

3. **Predictive Analytics:** Risk Edge has built several platforms for predictive analytics wherein the in-built Machine Learning algorithms can be easily configured to predict critical variables like yield, demand – supply, customer acquisition / retention, fraud detection, prices, cross / up selling opportunities, etc. The algorithms can more importantly, be also used to understand hidden relationships between all the crucial parameters of the business, and how each parameter affects the desired outcome. Some of its platforms include P&L Simulation, Yield Prediction for crops, Predicting Crude Oil Prices for 1 year forward, and daily Market Data for over 150 commodity instruments.

With clients and consultants in 6 countries and an established team of Commodity and Quantitative Finance Experts, Risk Edge is fast establishing its presence globally.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies - 8

Representative Clients – Olam International, China Aviation, US State of New Hampshire

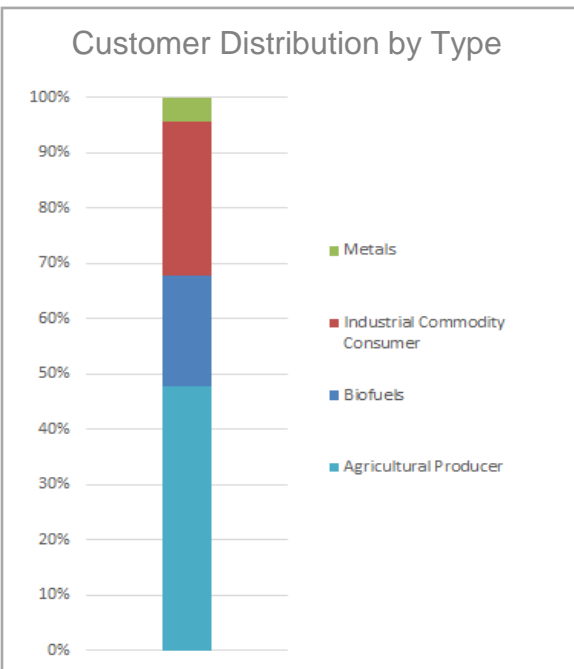
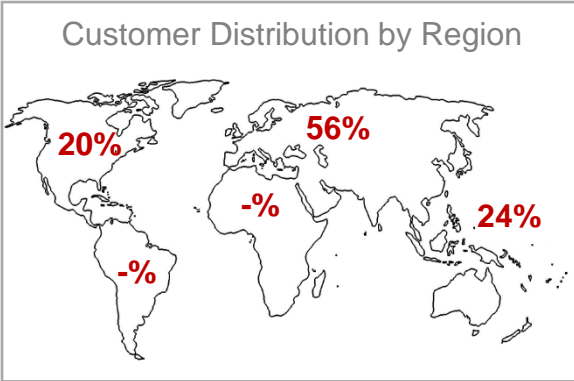
Office Locations and Phone

✓ India 91 40 40192919

SCALABLE DATA SYSTEMS

Level 2
97 Warry Street
Fortitude Valley, QLD 4006

www.scalable.com.au



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Scalable has not previously shown up in the Vendor Perception Study for CTRM software but we expect it to in the future.

Product: Scalable CTRM Version:

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions		Other Bulk	Freight Rates		
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
Production Management																		
Production Operations																		
Volumetric Management																		
Net Back Pricing																		
DOI/Owner Balancing																		
Fractionation																		
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Curve Management																		
Portfolio Optimization																		
Supply-Demand Optimization																		
Pre-Deal Analytics "what if"																		
Front Office / Trading																		
Trade Capture																		
Physical																		
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Deal Types																		
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Swaps																		
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Position Management																		
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Risk Management and Analysis																		
Credit Risk																		
Hedge Effectiveness																		
Analytics																		
Mark to Market																		
VaR - Monte Carlo																		
VaR - Other																		
Greeks																		
PaR/EaR																		
CVaR																		
Portfolio Sensitivity Anal.																		
Stress Testing																		
Simulations																		
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Currency Conversion																		
Unit Conversion																		
Document Management																		
Reporting / Business Intelligence																		
Canned Report																		
Ad hoc																		
Exec Dashboard																		
BI tools																		

Company Description

Designed for physical commodity trading organizations and process manufacturers who procure commodity for their own consumption, Scalable Commodity Trading solution combines powerful contract, logistics, and risk management capabilities with proven Microsoft D365 enterprise resource planning, supply chain and financial management functions in a single integrated platform, both In-the-Cloud and On-Premise.

The company's solutions manage commodity trading, risk management, procurement, supply chain operations and logistics, bulk handling storage, processing. The end-to-end commodity management platform enables companies to be more proactive in the ever-challenging and complex commodity markets. With the knowledge that the up to date analytical information is from one common source, companies can be confident they are basing their decisions on the best information available to them. Traders Dash Board and major reporting requirements via PowerBI tools.

Scalable Commodity is suitable for a wide range of commodities in the agricultural, process manufacturing, metals and biomass industries, including cereals and grains, oilseeds, fertilizers, biofuels, animal feed production, maltings and breweries, scrap metal processors.

Delivery Methods – Traditional License, Hosted in Private Cloud, Hosted in Public Cloud

Number of Licensed Client Companies – *Information not provided*

Representative Clients – Graincorp Malt, Hankkija Oy, Ridley Agriproducts, Alpert & Alpert

Office Locations and Phone

- ✓ AU 617 385 17 300
- ✓ UK 44 1577 840 675
- ✓ North America 1 714 594 7690

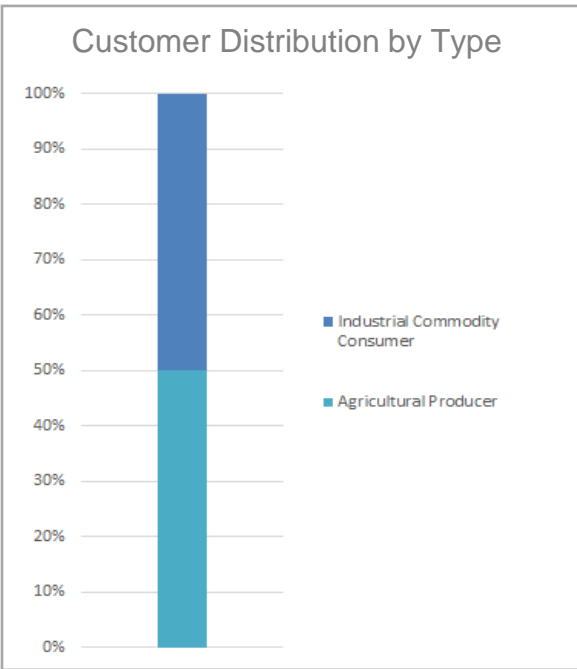
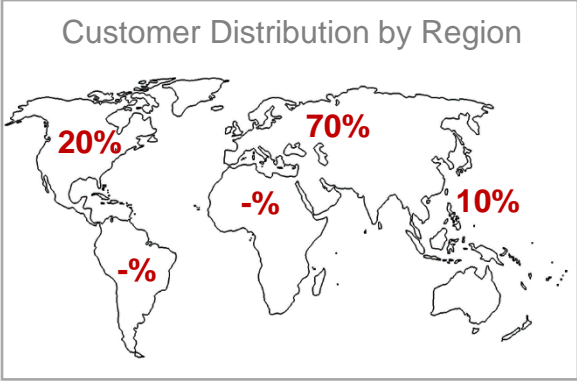
TRADESPARENT RISK MANAGEMENT SOLUTIONS

Conradstraat 38, D6.138
 3013 AP Rotterdam

www.tradesparent.com

Product: TRADESPARENT Risk Management Version: 5

K e y	Functionality is deployed and in production at a client site											Green						
	Not Deployed, but system is capable of providing functionality											Yellow						
Y	System is not currently capable of providing that functionality											Red						
	Not Applicable - Functionality not applicable for commodity											Grey						
		Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates		
									BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe	
Production Management																		
Production Operations	Production Management																	
	Volumetric Management																	
	Net Back Pricing																	
	DOI/Owner Balancing																	
	Fractionation																	
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	Gas Gathering																	
	Gas Processing																	
	Retail Operations																	
	Quality / Sampling																	
Contract Management																		
Front Office / Trading	Credit Tracking																	
	Curve Management																	
	Portfolio Optimization																	
	Supply-Demand Optimization																	
	Pre-Deal Analytics "what if"																	
	Trade Capture																	
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Credit Risk																		
Risk Management and Analysis	Hedge Effectiveness																	
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	Mark to Market																	
	VaR - Monte Carlo																	
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	CVaR																	
	Portfolio Sensitivity Anal.																	
	Stress Testing																	
Simulations																		
Fair Value Disclosure																		
Vessel Freight Risk																		
Insurance																		
Inventory Management																		
Middle Office	Scheduling and Logistics																	
	Power Transmission																	
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	Unit Conversion																	
	Document Management																	
	Reporting / Business Intelligence																	
	Canned Report																	
Ad hoc																		
Exec Dashboard																		
BI tools																		



ComTech Research Highlights

2016 CTRM Vendor Perception Report

TRADESPARENT is a relatively new software application developed by Commodity Services and Solutions (CSS). As such, it did not appear in the ComTech 2016 CTRM Vendor Perception report.

Company Description

TRADESPARENT is the leading, independent Risk Management Solution for commodity related industries.

The platform connects to all internal and external data sources of a company, creating 'One Source of the Truth' for its clients. The four main pillars 'Position and Performance Reporting', 'Dynamic Margin Management', 'Regulatory Reporting' and 'Risk Analytics' are based on extensive experience in commodity trading, processing, risk management and innovative software development. Best of all, the software can be implemented in weeks to months, not years.

By constantly analyzing your risk, margins and performance with TRADESPARENT, users are able to make informed decisions and are always one step ahead of their competition.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted

Number of Licensed Client Companies - 10

Representative Clients – *Information not provided*

Office Locations and Phone

- ✓ Netherlands 31 104 136 588
- ✓ US 1 773 790 4815

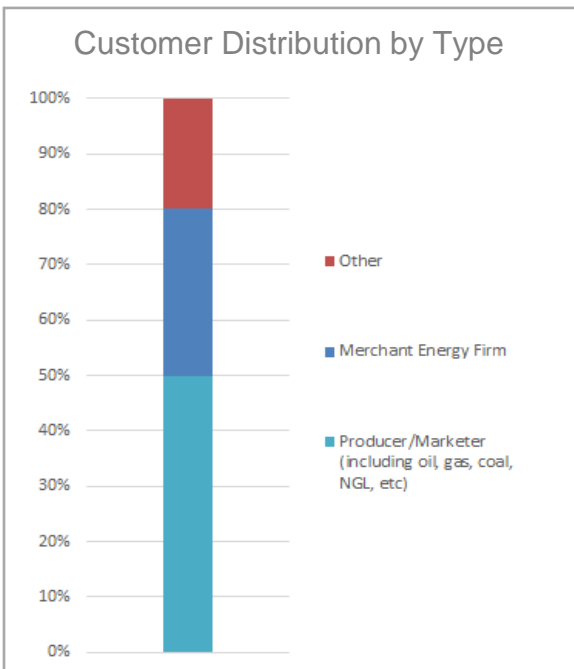
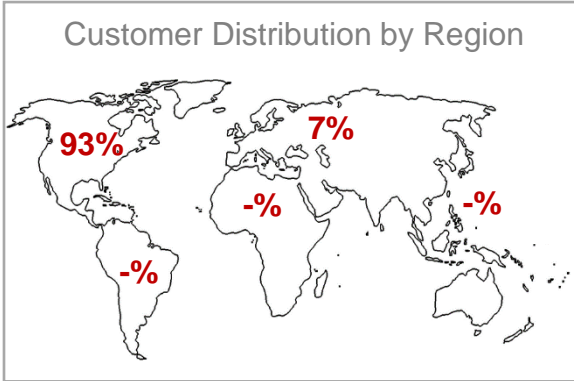
TRILOGY EFFECTIVE SOFTWARE SOLUTIONS INC.

14900 Landmark Blvd, Suite 325
Dallas, TX 75254

www.trilogyeffective.com

Product: **TIES** Version: **18.4**

K e y	Functionality is deployed and in production at a client site	
	Not Deployed, but system is capable of providing functionality	
	System is not currently capable of providing that functionality	
	Not Applicable - Functionality not applicable for commodity	



ComTech Research Highlights

2016 CTRM Vendor Perception Report

Trilogy Effective Software Solutions was a relatively new independent software provider (with the software previously having been owned by OpenLink via that company's acquisition of Solarc Inc.) at time the 2016 CTRM Vendor Perception Report was published. As such, it does not appear in that report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions		Other Bulk	Freight Rates
								Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America		
Production Management																
Volumetric Management																
Net Back Pricing																
DOI/Owner Balancing																
Fractionation																
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Trade Capture																
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Financial																
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Document Management																
Reporting / Business Intelligence																
Canned Report																
Ad hoc																
Exec Dashboard																
BI tools																

Company Description

Trilogy Effective Software Solutions provides application software for the Wholesale Energy Business Sector. Its bellwether product is The Integrated Energy System (TIES).

TIES is a fully integrated system that provides solutions to those companies that Produce, Transport, Process, Store, Market, and Ship: Natural Gas, Crude Oil, NGLs, Power, and Water.

For Producers or those providing Producer Services, TIES functionality includes: Division of Order, Working Interest Owner Balancing, Available For Sale Scheduling, Well Netbacking, Trading, Shipper Scheduling, Shipper Imbalance Management/Cash Out, and Accounting. For Gatherers/Transporters, TIES supports the Nomination/Confirmation process, Shipper Balancing/Cash Out, Park & Loan, Storage, Operational Balancing, a Web Based Shipper/Operator Nomination/Confirmation portal, and Accounting.

For Processors of Natural Gas, TIES provides a complete Plant Performance/Allocation System.

For Marketers/Traders, TIES provides a complete Trading System for Natural Gas, Crude Oil, Power, and NGLs.

For all venues TIES provides a comprehensive Contract Administration System, a Basic Risk Management System, Interfaces to ICE, Platts, OPIS, Flowcal, Pgas, SAP, PeopleSoft, Quickbooks and other General Ledger Accounting Systems.

TIES also includes TIES Connect which includes a Rules Engine, Report Writer, and ability to create unique Queries/Reports/Dashboards, etc.

Delivery Methods – Traditional License, SaaS: Multi-Tenanted, Hosted in Public Cloud

Number of Licensed Client Companies - 15

Representative Clients – Enlink Energy, Sprague Energy, Semgroup, Aethon Energy, Southwestern Energy, Kinder Morgan

Office Locations and Phone

✓ US 1 214 908 0217

Beyond Today Into Tomorrow

The Midstream Solution
for
Natural Gas, Crude Oil, NGLS

Producers
Gatherers/Pipelines
Processors
Marketers

From The Cloud
or
On-premise

Visit us at www.trilogyeffective.com

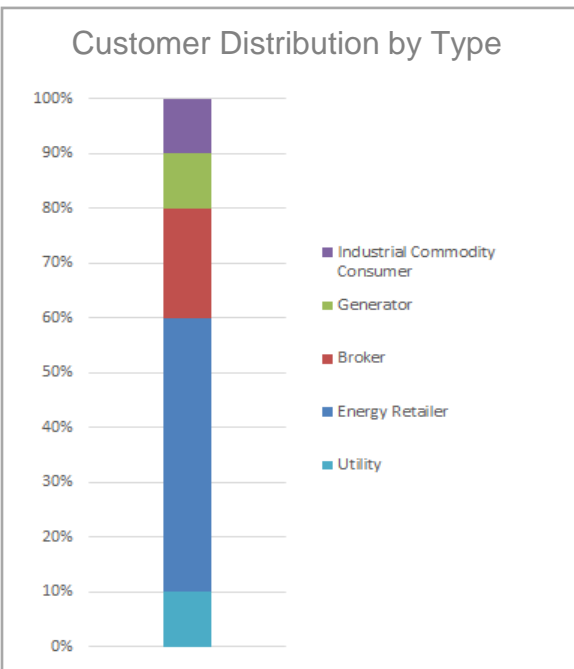
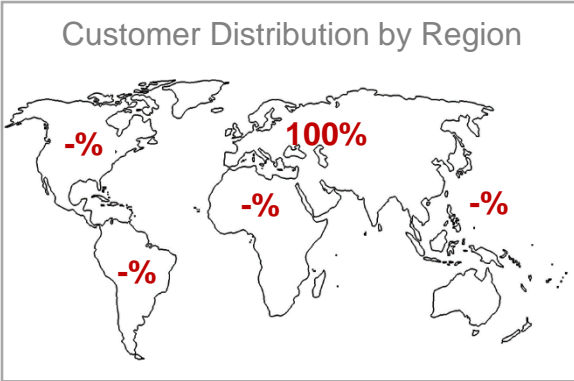
VUEPOINT SOLUTIONS LTD

Crescent House, Hopkinson Way
 Portway West Business Park
 Andover, SP10 35K, UK

www.vpsl.co.uk

Product: **Energy Risk VuePoint** Version:

K e y	Functionality is deployed and in production at a client site	Green
	Not Deployed, but system is capable of providing functionality	Yellow
	System is not currently capable of providing that functionality	Red
	Not Applicable - Functionality not applicable for commodity	Grey



ComTech Research Highlights

2016 CTRM Vendor Perception Report

VuePoint Solutions has not been previously noted by respondents in the CTRM Vendor Perceptions Report.

Function / Feature	Power	Natural Gas	Crude	Crude Products	NGL	Coal	Other Energies	Ags			Metals		Emissions	Other Bulk	Freight Rates			
								BioFuels	Grains	Edible Oils	Softs	Base	Concentrates	Precious	North America	Europe		
Production Management																		
Volumetric Management																		
Net Back Pricing																		
DOI/Owner Balancing																		
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Unit Conversion																		
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Reporting / Business Intelligence																		
Canned Report																		
Ad hoc																		
Exec Dashboard																		
BI tools																		

Company Description

Vuepoint Solutions is an award winning Software Development Company who create the tools required to gain access to accurate and up-to-date information for the power, gas and other commodity markets. Our clients include Generators, Suppliers, Energy Traders, Energy Buyers, Consultants and Major Energy Users. VPSL's suite of products include Market VuePoint, a decision support tool, and Energy Risk VuePoint, an energy trading risk management system.

Energy Risk VuePoint helps users to effectively manage their flexible energy procurement position and risk through an intuitive interface that delivers a high performance software.

Energy Risk VuePoint provides the one tool needed to access:

- An extensive range of live, end of day and historic market prices. We support both UK and European markets for a range of commodities including power, gas, coal and oil based fuels.
- Functionality with the ability to manage Baskets, Non Commodity Costs, multiple Contracts and Sites, all in the same system.
- All your data in one place, anytime, anywhere. As a software-as-a-service our users can access the system wherever they have an internet connection. Getting started with Energy Risk VuePoint is quick and easy and the system is routinely updated.
- A solution that suits you. Energy Risk VuePoint contains a number of widgets and set-up options that allow users to create their own package that suits their needs.
- Business User Friendly Reports. Create reports you want are ready as downloadable PDF or Excel format, which can be scheduled for automatic creation and issue.

Key Benefits:

- Actively control and manage your energy procurement
- Make informed decisions faster
- Streamline and automate your energy management processes

Delivery Methods – SaaS: Multi-Tenanted

Number of Licensed Client Companies – *Information not provided*

Representative Clients – Gazprom Energy, SmartestEnergy, Ecova, LG Energy

Office Locations and Phone

- ✓ UK 44 (0) 1264 345 940

Other Vendors

The following vendors also provide varying levels of ETRM, CTRM or CM capabilities. For more information on each, please consult the CTRMCenter.com vendor directory at <https://www.ctrmcenter.com/resources/> or their individual websites.

ABB (Ventyx)	Crisk
Agrosirius	CubeLogic
Albedo Energy Consulting	Cubiq
Ascend Analytics	Cultura
Atos Worldgrid	DMS
Beacon	Dycotrade
C Square International	Egar Technology
Calvus Solutions	EMK3
CDA Software	Ensite
Chinsay	Ensyte
CMS	Eximware
ComFin	Graintrack
Commodities Engineering	GSML
Commodity Risk Solutions	Hivedome
cQuant.io	Intstream

DycoTrade

Software for **Commodity Trade & Risk Management**

Based on Dynamics AX / Dynamics 365 for Operations

Metals, Aggs & Softs

www.dycotrade.com

Amsterdam, The Netherlands, **Phone: +31 20 671 0437**

IP Systems	RSDi
IPEsoft	SAP
iRely	SAS RiskAdvisory
iRisk	SCA Technology
Kisters	Sinergetica
Kynetix	Sisu Group
KYOS	Soflutions
Markit	Softsmiths
MCG Energy Solutions	Square Four
Microstep	Talman Solutions
Momentum3	Tech Mahindra
Murex	Tegos
P2 Energy Systems	Three Rivers Cotton System
PCR	Tradepaq
PerfectChannel	Tradex
Planlogic	TransGRAPH Consulting
Power Settlements	Transition Technologies
ProCom	Triple Point Technology
Progressive SW	Unicorn Systems
Qbill	Utilidex
Quantifi Solutions	Utiligroup
Quantrisk	Virtimo
Quorum Business Solutions	Visotech
Redfaire International	Waterfield Energy

ABOUT

Commodity Technology Advisory LLC

Commodity Technology Advisory is the leading analyst organization covering the ETRM and CTRM markets. We provide the invaluable insights into the issues and trends affecting the users and providers of the technologies that are crucial for success in the constantly evolving global commodities markets.

Patrick Reames and Gary Vasey head our team, whose combined 60-plus years in the energy and commodities markets, provides depth of understanding of the market and its issues that is unmatched and unrivaled by any analyst group.

For more information, please visit:

www.comtechadvisory.com

ComTech Advisory also hosts the CTRMCenter, your online portal with news and views about commodity markets and technology as well as a comprehensive online directory of software and services providers.

Please visit the CTRMCenter at:

www.ctrmcenter.com

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Sugar Land TX 77479
+1 281 207 5412

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+420 775 718 112

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Commodity Technology Advisory

CTRM Market Research, Analysis and Insights