



ACHIEVE CONTROL OVER GLOBAL VENDOR SPENDING

Organizations Lack Visibility Into Vendor Spend

Lack of accurate, timely, and contextual vendor spend data hinders the potential for full cost savings, reduces operational efficiencies and drastically increases risk to the enterprise. There are a myriad of reasons for this ubiquitous challenge including: lack of reporting from existing financial systems, inadequate data, purchasing through resellers obfuscating spend, vendor complexity and the sheer volume of transactions.

Traditional approaches to establishing quality data through ERP systems and data warehouses fall short of delivering the classification, categorization, normalization and enrichment that is needed for insightful analytics in a timely manner. The sheer volume of human involvement, with the output typically a point in time Excel spreadsheet, has made visibility across the organization's vendor spend unattainable.

Many organizations attempt manual curation via QA teams, and other labor-based solutions however all agree consistent classification and accuracy is not attainable at human scale. Without proper instrumentation companies usually end up only hitting about 60 percent of the spend in a given category because the other 40 percent is uncategorized or mis-categorized.

GARTNER'S TOP 10 PREDICTIONS

#2: Intelligent Apps and Analytics where Artificial Intelligence (AI) will be incorporated in every app and service especially ERP for: automating data preparation, insight discovery and insight sharing.

[To view a more detailed description of the prediction their website.](#)

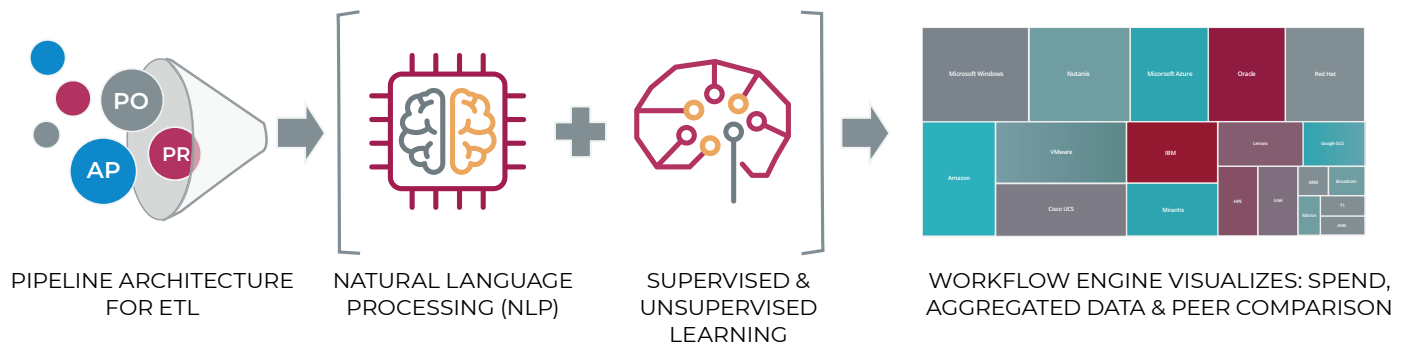
"As a former CIO, there was nothing more powerful for me than aligning and arming my C-Suite colleagues with the same information and background material to support strategic vendor investment recommendations. The management team having confidence in the information provided built trust, furthered collaboration, and saved significant time to achieve consensus. Pulling this data together across various geographies, platforms, and vendors; aligning and classifying the information in digestible format often took Herculean efforts. And when we had it all sorted, categorized and validated together, it was already aged. ... "

CXO Nexus' proprietary Visualization and AI based Classification engines solve this problem by providing purpose built, real time information from all available sources. The same underlying categorized data can be presented and shared across different persona based visualization tools. CXO Nexus is the next generation product to front end all of your in place Financial and Vendor Management solutions."

Mike Azarian;

Former CIO of Citibank Retail Banking and CTO of JPMorganChase

The Visual Fusion Engine (VFE)™ Solves the Issue



CXO Nexus takes a modern approach to resolving the myriad of issues by using advanced AI techniques leveraging Deep Learning Neural Networks, and Natural Language Processing to automate the management and maintenance of vendor spend data. The output of the Visual Fusion Engine™ (VFE)™ include the Chief Information Officer (CIO) InCight and Chief Marketing Officer (CMO) InCight that elevate the discussion to the business level to help Information Technology (IT), Marketing, Finance and Procurement focus on managing the business, not infinite amounts of vendor data.

The VFE™ is an overlay that ingests multiple sources, via APIs and feeds, from common financial and procurement systems. In addition to the customer sources enrichment data on vendors, including market and product, are added to provide context and improve fidelity.

To process the data a multi part pipeline architecture is in place utilizing the AirFlow workflow platform. Each stage in the workflow with logging, tracking, and reporting can be evented on and actioned. The data is “scored” in each step to assess not just the completeness of the process, but also the quality. Once the data has been

parsed, it is matched against Vendor, and Product databases. Supervised Machine Learning is used to clean and normalize the data.

The invoice files are broken out for separate process starting with reading the data in structured or unstructured formats. Images are OCR scanned, then Unsupervised Machine Learning is utilized to discover the features of the invoices and map them against known field mappings which are then normalized into the database.

The data is then classified to a taxonomy through the classification engine that utilizes the product and vendor databases or Supervised Learning to make a recommendation. The data is curated through User Classifications, Crowd Sourced Peer Classifications, 3rd party Service that manually track, discover and cleanse the data, and our own curation team. Once the data is cleaned, normalized, classified, and mapped, the vendor purchasing records from Accounts Payable (AP), Purchase Order (PO), Purchase Requisition (PR), Invoices, Travel & Entertainment (T&E), and Cloud Billing Data are gathered then reconciled in a 9-state machine to track active vendor expenses.

Vendor Spend Presentation

The data and analytics produced by the VFE™ are available in real time via a cloud-based SaaS platform that provides the enterprise with an intuitive, visual heat map containing five levels of views:

Level 1: Overall Spend by Category

Level 2: Overall Spend by Category & Vendor

Level 3: Vendor Spend by Individual Category

Level 4: Vendor Detail by Transaction and Buyer

Level 5: Vendor Roll Up Spend Spanning all Categories

The size of a category or vendor portrays the amount of spend received and the color scheme portrays if the spend is moving up or down.

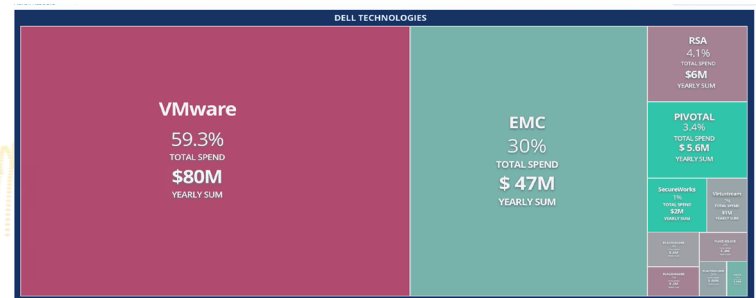
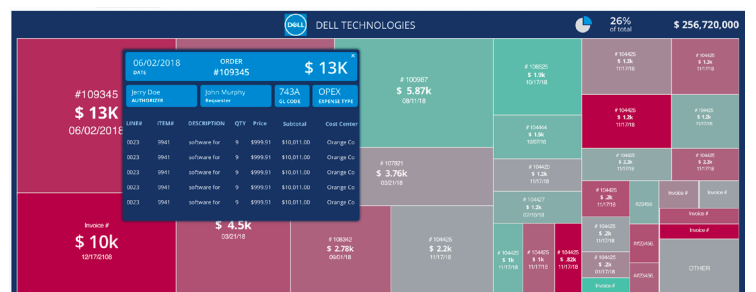
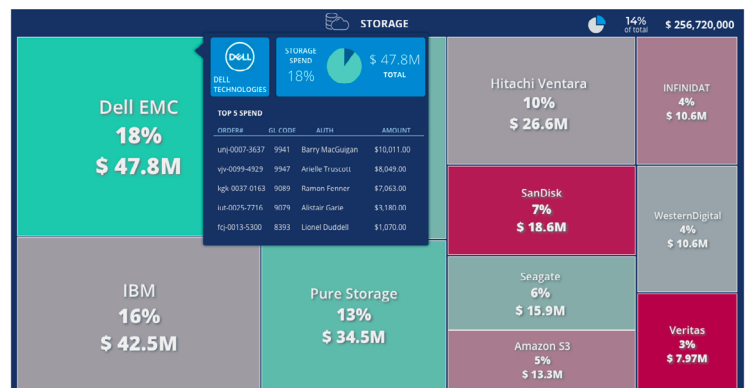
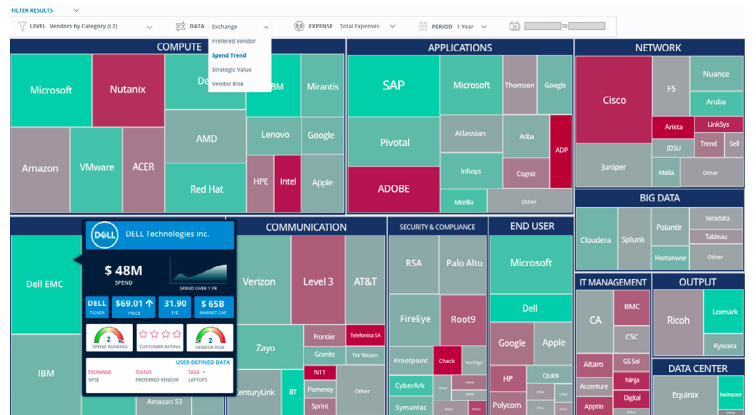
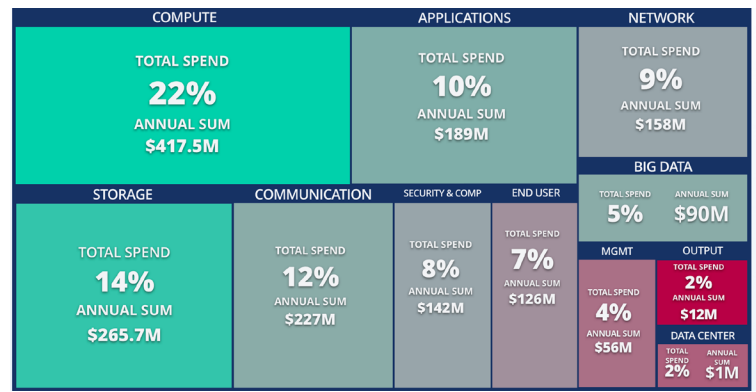
The ease of use, visualization and presentation of a large amount of critical data enables collaboration across the business. This is sorely needed in many organizations as a recent Workday study points to less than 1/3 of CFOs feeling they have seamless collaboration with their peers.

Additional functionality includes a proprietary workflow-based Action Framework which incorporates best practices to analyze spend and transactions at scale to help identify cost savings opportunities within IT vendor spend. Lastly, the platform's aggregated data enables fact-based Peer Benchmarking coupled with unbiased Market Trends & Insight derived from actual money flow not an analyst opinion.

CXO Nexus has cracked the code for managing the details with its proprietary AI Classification Engine. This is the foundation for providing purpose built, C Suite visualization capabilities, giving real time data on where you spend, how you spend, and with whom you spend your investment dollars.

Mike Azarian

Former CIO of Citibank Retail Banking and CTO of JPMorganChase



Data Quality is Fundamental

The CXO Nexus AI engine addresses the six critical dimensions of Data Quality:

Accuracy

Validity

Uniqueness

Consistency

Completeness

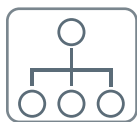
Timeliness

In order to address data quality the following domains are leveraged:



BIG DATA

The CXO Nexus AI Classification engine has a unique data set with access to millions of Enterprise Business to Business transactions with real time, constantly updated data, and \$ Billions in spend to continually improve data quality.



TAXONOMY

The CXO Nexus AI Classification engine recognizes that while all accounting and expenses are similar, how each company categorizes and accounts for them is highly unique. For this reason, the CXO Nexus AI Classification engine maintains two or more separate taxonomies, one unique to each client so they can see spend in the way they have become accustomed to. The other is the Reference taxonomy, that is a role/persona based (e.g. IT, Marketing) taxonomy by business function. This is useful in doing Peer Comparisons that enables comparing category and vendor spend to other like companies.



NON-HUMAN SCALE ACHIEVED VIA THE CLOUD

The CXO Nexus AI Classification engine is a true Cloud native solution with access to near unlimited resources leveraging state of the art hardware and software solution. It processes billions of transactions, and trillions of data points on an ongoing basis to identify, classify, and recommend solutions for every transaction, not just the few "important" ones.



CROWD SOURCING

The CXO Nexus AI Classification engine leverages the aggregated and anonymized "Crowd Data" allowing companies to benefit from transactions seen anywhere on the network, including curation by industry experts at leading enterprises. All updates to the database and shared and improve the AI based recommendations.



3RD PARTY DATA SETS

The CXO Nexus AI Classification engine is continually enhanced with 3rd party data sets, from Product Catalogs, Code Set updates (UNSPSC, NAICs), Market data, and other

sources to continually improve the results of the AI based recommendations.



CURATION

The CXO Nexus Classification engine depends on AI and automation for the bulk of its functionality, but recognizes that some data is not obtainable or reliable online or through peers. As such, the AI based recommendations are augmented by algorithm and manual quality assurance checks. CXO Nexus also employs a team of procurement practitioners to manually update and locate data as needed. These are then fed back into the AI engine to improve recommendations going forward.



RESELLERS/VARS & SUBSIDIARIES

We maintain many to many relationships between an OEM and the Reseller/VARS and Subsidiaries allowing the enterprise visibility into true spend, maximizing leverage. The platform automatically rolls up vendors to the OEM for spend through resellers, and sees subsidiaries of companies and how they roll up to the parent company.



To learn more, contact us at
sales@cxonexus.com
or 833-CXO-DATA (833) 296-3282