




ERP Solutions Market Analysis

Prepared For Orange County

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Executive Summary

The ERP solution market analysis was conducted to assess potential application platforms, market conditions for potential enterprise ERP applications that a public sector organization may deploy and service integrator vendors. As part of this market condition assessment potential vendors that could support core enterprise resource planning (ERP) implementations and fit-for-purpose business applications were identified and assessed.

- Market Analysis – ERP Software
- Business Application Analysis
- Systems Integrator Analysis

Section 2



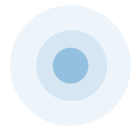
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Overall ERP Solutions Market

2019-23

Forecasted Compounded Annual Growth Rate (CAGR)[^]



8.1%

(IDC estimates)

2019

Adoption rate of overall ERP software



80%

(Computer Economics (CE) 2019 Survey)

2019

Global overall ERP market size



US\$39 billion

(Gartner estimates)

Key Market Drivers



- Increase in adoption of automation
- Demand for cloud based solutions
- Real-time data analytics
- Adoption of emerging technologies

Key Challenges



- Integration issue and lack of flexibility
- Cost of implementation
- Adoption timeline

Key Highlights

- **Gartner's** estimates indicate that the **ERP software market grew 9% y-o-y in 2019** to a market size of **~US\$39 billion** with **cloud vendors registering a higher annual revenue growth** than those with on-premises ERP offerings
- According to estimates by 'ResearchandMarkets', **North America ERP market** is expected to growth at **9.3 percent CAGR** during the forecast period of 2019-25
- As per Computer Economics (CE) 2019 survey of 249 organizations, **top sectors** investing in ERP are **retail** (80 percent), **construction** (71 percent), and **manufacturing** (65 percent) while **finance, purchasing and inventory/warehouse management** are the **priority functions**
- In 2019, 'Software Advice' analyzed the estimated ERP budget for ~100 small and midsize manufacturers, and found that **72 percent of organizations** are willing to **spend US\$200-300 per user per month** and **81 percent** are willing to **spend US\$5,000-6,000 per user for perpetual licenses** (long term)

Note: KPMG analysis; [^]The COVID-19 impact has not been factored into the forecasted figure.

Source: Oracle, 50 Critical ERP Statistics: 2020, ([Link](#)); Markets and Markets, Cloud ERP Market, 2020, ([Link](#)); Panorama Consulting Solutions, ERP Report, 2018, ([Link](#)); Computer Economics, ERP Tech Trend, 2019, ([Link](#)); Research and Markets, North America ERP Software Market, 2019, ([Link](#)); Gartner ERP market report (Market Share Analysis: ERP Software, Worldwide, 2019 ID: G00717146); all accessed on 28 October 2020

Overall ERP Market Drivers (1/2)

The ease and availability of cloud-based platforms coupled with automation is the key market driver for the adoption of ERP software.

- According to CE's 2019 survey, **ERP investments within small organizations** (revenue range: US\$20 - US\$350 million) was **76 percent** and **large organizations** (>US\$1 billion revenue) was **~89 percent**
- According to an **IDC 2019 survey** of ~475 organizations, **57.5% of small businesses** (with <100 employees) **strongly agree on investing in ERP cloud and hosted solutions**

Increase in adoption of automation



- Organizations are **eliminating manual processes** and integrating scalable automation models to meet dynamic customer demand
- According to McKinsey's 2019 survey of 2,360 participants, **RPA** provides the **most value** for **Automotive, Financial Services and High Tech industries**



Key benefits

- Provides **streamlined operation** with optimized workforce and improved process efficiency
- Organizations can **forecast demand, optimize procurement, capture value** at scale and make real time data driven decisions at all levels

Increase in demand for low cost cloud based solutions



- Impact of COVID-19 pandemic has increased the demand for **cloud based centralized system**
- According to Gartner, **global public cloud services market is forecasted to grow at 6.3 percent in 2020** to reach US\$257.9 billion (from US\$242.7 billion in 2019)
 - Software as a service (SaaS) remains the largest market segment and is **forecasted to grow to US\$104.7 billion in 2020**



Key benefits

- **Reduced physical infrastructure** and **less maintenance cost**
- **Pay-as-you-go model** increases storage, flexibility and scalability

Source : Altran, The Digital Shift, 2020, ([Link](#)); Colorado Biz, Five ERP trends facing middle market CFOs, 2019, ([Link](#)); Gartner, Gartner Forecasts Worldwide Public Cloud Revenue, 2020, ([Link](#)); Markets and Markets, Cloud ERP Market, 2020, ([Link](#)); McKinsey, Global AI Survey, 2019, ([Link](#)); Gartner ERP market report (Market Share Analysis: ERP Software, Worldwide, 2019 ID: G00717146); all accessed on 28 October 2020

Overall ERP Market Drivers (2/2)

Current emerging trends in the need for incorporating analytics and adoption of emerging technologies further drives the market for ERP solutions.

- According to **Gartner 2019 CIO Survey**, **15 percent** of CIOs plan to **increase their Internet of Things (IoT) budget** and **65 percent** of CIOs say **AI will be integrated in to ERP software**
- According to a **2018** survey by **Panorama Consulting Solutions** (sample size of ~237 organizations), the **average ROI time** for companies that implemented ERP was **~2.5 years**

Real-time data analytics



- Increasing demand for **real time data analysis, remote monitoring and predictive maintenance** in various industries make the **ERP system** an **essential component to integrate data** from multiple systems

Key benefits

- Organizations can **expand income, enhance operational productivity, upgrade promoting and marketing campaigns**, etc. in order to gain competitive advantages
- According to 'Market Reports World', the Data Analytics Market is expected to grow at a **CAGR of 30 percent during the forecasted period from 2017-23**



Adoption of emerging technologies



- Trends in the adoption of emerging technologies like Industrial Internet of Things (IIoT), Artificial Intelligence (AI) and 3D manufacturing increased the **need for a connected enterprise managed by ERP software**

- Altran's 2020 Digital Transformation report states that **~US\$421 billion could be saved annually** by using 'Industry 4.0' technologies in operations

Key benefits

- Helps in **understanding operations** and focus on **enhancing customer experience**
- As per estimates by 'Research and Markets', **~50 percent** of global enterprises (small, mid-sized, and large) will **deploy IoT enabled ERP by 2022**



Key Challenges in ERP Implementations

Due to challenges such as data integration and reduced flexibility, ~50 percent of organizations tend to fail in first time ERP implementations.



Integration issue and lack of flexibility

- **Data migration and integration** without losing data quality and **process re-engineering** for comparability with ERP software is one of the major challenges for organizations implementing ERP
- According to Technology Evaluation Centers (TEC) 2020 ERP Statistics & Facts, **51 percent of organizations experience operational disruption while implementing ERP software**



Cost of implementation

- Regardless of the deployment method, organizations have reported ERP implementation cost to be **3 - 4 times more than the actual budget**
- According to '**TEC 2020 ERP Statistics & Facts**', requirement in **current system modifications** for improving usability while implementing ERP software have caused **overspending in 65 percent of the scenarios**



Adoption timelines

- The TEC report further reports that, on average, ERP implementation takes **30 percent longer time than estimated**
- During ERP set-up, organizations **tend to spend more time on front end planning and implementation** to track issues rather than operational impact after adoption and implementation

Cloud ERP – Market

2019-24

Forecasted Compounded Annual Growth Rate (CAGR)[^]



~6%
(market estimates)

2018

Adoption rate of SaaS and cloud ERP software



85%
(survey by Panorama Consulting Solutions)

2019

Global cloud ERP market size



~US\$23 billion
(market estimates)

Key Highlights

- Panorama Consulting Solutions 2018 survey, further indicates that **64 percent of companies are using a SaaS platform** while **21 percent use cloud ERP model**
- Globally, **North America** leads in the adoption of cloud ERP solutions (accounting for **more than 32 percent in 2019**) majorly driven by adoption of technologies such as **IoT, big data and mobility** followed by Europe and APAC
- Amongst industries, the **BFSI segment** was leading Cloud ERP adoption in 2018 due to increased focus on digital transformation of day-to-day operations while increasing the efficiency of processes, followed by **manufacturing and telecom**
- As per Gartner IT Spending report, **overall enterprise software*** market is forecast to increase by **8.5 percent in 2019 from 2018**, to touch **US\$431 billion**. Within overall enterprise software category, **cloud based software and applications** are having most spending of **US\$214 billion in 2019**, which is **17.5 percent increase** from 2018
- Increasing adoption of **cost-effective technologies by small and medium size businesses (SMB)** is supporting the growth of cloud ERPs which is seen as an economical solution due to the absence of upfront infrastructure costs while **large businesses** focus on cloud ERPs to support their **end-to-end digital transformation initiatives**

Note: KPMG analysis; [^]The COVID-19 impact has not been factored into the forecasted figure; estimates for CAGR and market size is based on multiple market reports. *Overall enterprise software consist of ERP, CRM, SCM, open-source, on-premise and cloud software.

Source: Oracle, 50 Critical ERP Statistics: 2020, ([Link](#)); Markets and Markets, Cloud ERP Market, 2020, ([Link](#)); Panorama Consulting Solutions, ERP Report, 2018, ([Link](#)); Furion analytics Research & Consulting, Cloud ERP, ([Link](#)); IDC, Worldwide ERP Software Market Shares, 2018: Digital Transformation Driving Change, ([Link](#)); Gartner: Cloud, enterprise software to drive global IT spending increase 2019, ([Link](#)); all accessed on 28 October 2020

Cloud ERP – Pros and Cons

The demand for cloud ERP is increasing due to benefits such as scalability, short implementation time, and cost advantages over on-premise ERP.

Cloud ERP | Pros

- According to Computer Economics 2019 survey, top advantages of Cloud ERP software **are reduced IT infrastructure and maintenance costs and increased flexibility and scalability**
- Cloud ERP enables the **service provider to manage system updates** without the need for service implementation, licensing, and support costs
- Implementation time for Cloud ERP software is less, according to Oracle analysis, on an average **Cloud ERP deployments take 3-6 months compared to 12 months to implement on-premise solution**
- In Oracle analysis on total cost of ownership of on-premise Vs. Cloud ERP, **cloud-based ERP can cost 50 percent less than on-premise** for a 100 - employee company over a period of four years
- According to Computer Economics survey 2019 survey, organizations with Cloud ERP reports **reduce in IT function employees and associated personnel cost**

Cloud ERP | Cons

- According to Panorama Consulting Solutions 2019 ERP Survey among 181 respondents, **27 percent of the responders did not choose cloud ERP software due to the risk of security breach**. The companies has full control over their data with on-premise ERP software
- Organizations believes **level of transparency in Cloud ERP software is less** when compared to on-premise because the company's financials and operational data is hosted in third party vendor platform
- Though mobility is an advantage for Cloud ERP, overall productivity may affect in case of connectivity issues this can prevent ERP users from accessing their account

Source: Oracle, How Cloud ERP Compares to On-premise ERP, 2016, ([Link](#)); Panorama Consulting Solutions, ERP Report 2020, ([Link](#)); The App Solutions Inc., Cloud ERP Vs on-premise ERP, ([Link](#)); Hitachi Solutions, Ltd, Cloud vs. On-Prem ERP: Evaluating a Move to the Cloud; ([Link](#)); Computer Economics, The Differences Between Cloud and Hosted ERP, and Why They Matter 2019, ([Link](#)); all accessed on 28 October 2020

On-premise ERP – Market

2019-24

Forecasted Compounded Annual Growth Rate (CAGR)[^]



2.5%

(calculated from market estimates)

2018

Adoption rate of on-premises ERP



15%

(survey by Panorama Consulting Solutions)

2019

Global on-premise ERP market size



US\$15.7 billion

(calculated from market estimates)

Key Highlights

- Latest reports and trends indicate that adoption of on-premise ERP application has been declining and the **shift to cloud ERP** is primarily due to cost and flexibility benefits and the long-implementation period of on-premise systems
- Though shift is towards cloud ERP, but still **on-premise ERP holds a significant market share of ~38% in the ERP market in 2019** mainly due to industries such as manufacturing, construction and healthcare with an **adoption rate of 15% in 2018**
- **IDC** further states that on-premise software market still remains important as **medium-sized and large enterprises may be still maintaining existing back-office systems**
- **Industries with frequent changing regulatory landscape** (like oil & gas, pharma and healthcare) are adopting on-premise ERP solution for **better control over change management**

Note: KPMG analysis; [^]The COVID-19 impact has not been factored into the forecasted figure; estimates and calculations for CAGR and market size is based on multiple market reports. *Overall enterprise software consist of ERP, CRM, SCM, open-source, on-premise and cloud software.

Source: IDC, Worldwide Enterprise Applications Software Forecast, 2019–2023, ([Link](#)); Oracle, 50 Critical ERP Statistics: 2020, ([Link](#)); Allied Market Research, ERP Software Market by Component, 2019, ([Link](#)); Work Wise Software, An In Depth Look at on-premise ERP, 2018, ([Link](#)); all accessed on 28 October 2020

On-premise ERP – Pros and Cons

Maturity, data security, and customization are the advantages of on-premise ERP software while high costs and scalability remain a concern.

ERP on-premise | Pros

- On-premise ERP is more evolved and **mature when compared with Cloud ERP**, therefore the **offerings and systems are available to fit any functionality required by organizations in all industries**
- On-premise ERP software provides advantages of **improved security and visibility**
 - According to Panorama Consulting Solutions 2019 ERP Survey, **31 percent of the responders report risk of data loss as the factor for not choosing cloud ERP**
- When compared with Cloud ERP, on-premise ERP software provide more options for **customization including the ability to incorporate tailored applications into the business process flow**

ERP on-premise | Cons

- On-premise ERP software requires a **significant upfront investment for the infrastructure set-up** and cost associated with deployment of the systems
- According to a 2019 survey by Computer Economics, **on-premise ERP software shows less operational flexibility** when compared to cloud ERP
- **On-premise ERP's scalable capacity is limited to the hardware**, organizations need to factor in the growth plan and expansion during the phase of planning and implementation itself

Source: Oracle, How Cloud ERP Compares to On-premise ERP, 2016, ([Link](#)); Panorama Consulting Solutions, ERP Report, 2020, ([Link](#)); The App Solutions Inc., Cloud ERP Vs on-premise ERP, ([Link](#)); Hitachi Solutions, Ltd, Cloud vs. On-Prem ERP: Evaluating a Move to the Cloud; ([Link](#)); Computer Economics, The Differences Between Cloud and Hosted ERP, and Why They Matter 2019, ([Link](#)); all accessed on 28 October 2020

Deployment Model: Cloud vs. On-premise ERP

According to Panorama Consulting Solutions 2019 survey, 64 percent of organization chooses Cloud ERP as preferred deployment option primarily due to reduced maintenance costs.

Parameter	Public Cloud	Private Cloud	Hybrid Cloud	On-premise
Infrastructure	Hosted remotely and used by multiple customers	Hosted remotely and used for dedicated customer	Combination of public, private, and on-premise	Hosted on organizations' local server and systems
Customization	Very Limited	Yes	Yes	Yes
License Owner	Vendor	Vendor	Customer	Customer
System Updates	Quarterly updates, done by vendor	Quarterly updates, done by vendor	Annual updates, co-managed	Annual updates, done by customer
Maintenance Fee	Yes	Yes	Very low	No



Cloud ERP is offered to organizations through three options, **Public, Private and Hybrid Cloud Model**

- As per Panorama Consulting Solutions 2019 ERP Survey of 241 organizations, **21 percent** use **public cloud** model and **14 percent** use **private cloud** model
- **Only 9 percent** of the surveyed organizations have opted for a **hybrid cloud ERP model**



On-premise is a traditional model where vendors provide organizations the software **installed on in-house servers**

- Panorama Consulting Solution's survey indicates that on-premise ERP is **deployed by 37 percent of the organizations in 2019**

Source: 5 Types of ERP Software Deployment Models to Consider Before You Buy, ([Link](#)); Cloud service and deployment models, ([Link](#)); How To Choose The Right ERP Deployment Destination, ([Link](#)); all accessed on 28 October 2020

Pricing Model: Cloud Vs. On-premise ERP

Total Cost of Ownership (TCO) of cloud ERPs can be as much as 46 percent lesser when compared to on-premise ERP systems.



Cloud ERP

Pricing model deployed

- Cloud ERP software deploys the software-as-a-service (**SaaS**) **subscription plans pricing model** that involves paying fees on a per user/month or per user/year basis which includes recurring costs like **hardware maintenance, support and system upgradation costs**

Core features

- The subscription plans pricing model helps **avoid a large up-front implementation cost and hardware installation cost** which aids companies with limited free capital
- This pricing model gets upgrades and **new features released in real time** to avoid obsolescence

Expenditure category and right to ownership

- The amount paid for this model comes under **operational expenditure**
- It does not include the right to ownership as the **license is owned by the vendor company** even after deployment

Price range

- Starts from around **US\$54/user/month**, and it can go up to around **US\$95/user/month**



On-premise ERP

Pricing model deployed

- On-premise ERP software deploys the **perpetual licensing pricing model** that involves paying a **one-time, up-front perpetual licensing fee** based on the number of users and the level of customization which may not include maintenance costs

Core features

- This model charges additional maintenance, support and system upgradation costs; according to **Oracle**, the system upgradation costs **US\$0.1 million to US\$1 million every 3 to 5 years**
- There is no real time upgradation and may face obsolescence issues and exposure to harmful viruses and malicious software

Expenditure category and right to ownership

- The amount paid for this model comes under **capital expenditure (Capex)**
- It includes the right to ownership as the **licenses are owned by the company deploying** the on-premise ERP

Price range

- Can be as low as **US\$75,000** and it can go up to as high as **US\$10 million** depending on the **organization size and requirement**

Source: How much does an ERP System cost, ([link](#)), Subscription vs Perpetual: software licensing comparison, ([link](#)), On-premise ERP vs Modern cloud ERP: Comparing financial models and costs of ownership (Oracle), ([link](#)); all accessed on 28 October 2020

Section 3



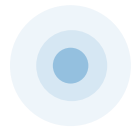
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- Vendor profile – Tyler Munis ERP
- Vendor profile – Sage Intacct
- Vendor profile – Infor CloudSuite Public Sector
- Summary and Key Observations

Vendor profile - Oracle NetSuite

Oracle Cloud NetSuite Overview

Key statistics

- Revenue FY20: US\$39 billion (*Cloud and License business drives 83% revenue*)
- HQ: Redwood, California, USA
- Geographical presence: Offices in 75+ countries
- Ownership: Public (ORCL)
- # of employees: ~135,000 (*~19,000 in cloud services and license support operations*)
- Customer base: ~22,000

Market perception

- Recognized as Visionaries in 2020 Gartner Magic Quadrant for Cloud ERP for Product-Centric Enterprises
- IDC recognized Oracle Netsuite as leader in 2020 Worldwide SaaS and Cloud-Enabled Midmarket Finance and Accounting Applications Vendor Assessment
- Recognized as Leader in 2020 Gartner Cloud Core Financial Management Suites for midsize, large and global enterprises

Key partnerships

- Accenture, Capgemini, Infosys, Wipro and Cognizant are the top IT service providers in Alliance partnership with NetSuite for system integration
- Deloitte is the Global Alliance partner of NetSuite for system integration
- NetSuite has ~80 Regional Systems Integrators which includes Bridgepoint Consulting, Grant Thornton, etc.

Key industries served: Advertising, Consulting, Information Technology & Services, Energy, F&B, Financial Services, Health Care, Health & Beauty, Government Administration & Public Sectors, Manufacturing, Retail etc.

Key clients: AAE Travel, Action Health, Accuserv, Al Faris Group, Domino's China, DIY Home Center, Intelipost, Jetline, Oakland Athletics, OmniTRAX, Scoot Airline,

Industry innovation & Proprietary Technology

- **SuiteFlow-** Automates custom approval routing, apply validations, create related records, direct the end user to appropriate forms in the user interface

Eminence in the space

- Constellation Shortlisted Oracle NetSuite in Product-Centric Cloud ERP and Services-Centric Cloud ERP
- In 2020, Constellation short listed Oracle NetSuite as a product centric cloud ERP

Source: Oracle, 2020 10K report, [Link](#); Oracle, Corporate Fact, [Link](#); Oracle, Market perception, [Link](#); Oracle NetSuite Partnership, [Link](#); NetSuite, Industry, [Link](#); NetSuite, ERP Customer, [Link](#); NetSuite, Awards, [Link](#); NetSuite, UK Cloud Awards, [Link](#); SuiteFlow, [Link](#); Oracle, Constellation Research, [Link](#)

Oracle NetSuite Financials Capabilities (1/2)

Oracle NetSuite Financials Management solution: The finance module provides a comprehensive solution for managing accounts, FP&A, accounts payable, accounts receivable, revenue and expenses with real-time dashboard

Finance and Accounting: Helps to streamline processes and operations of finance with real time data access. The modules includes:

- **General Ledger:** Eliminates the process of manual journal entries, provides unlimited custom general ledger segments such as profit center, fund, program, product line, etc. Multi-Book accounting feature records all book-specific activities based on a single business transaction from the general ledger, revenue recognition, expense amortization, depreciation, and P&L allocations
- **Accounts Receivable:** Reduces cycle time of credit-to-cash by process optimization. Provides self-service tool to access real-time information on purchase orders, inventory and payment information. Configurable dashboards, reports and KPI's provide a real-time view into customer aging, invoice analyses, recurring invoices, deferred revenue, exception reports to flag account anomalies
- **Accounts Payable (AP):** The solution improves visibility and compliance of the AP process, helps to automate invoice processing, payment and discounts calculation
- **Tax Management:** Provides configurable tax engine to support end-to-end domestic and global tax management. Supports tax calculations at multiple global levels and locations for 50+ countries in multiple currencies. SuiteTax API allow users to select third party tax solutions and integrate with NetSuite
- **Fixed Assets Management:** Complete integration of asset lifecycle with accounting. The system allows users to create multiple customize depreciation methods and provide reports across assets, valuation, and depreciation
- **Cash Management:** Increases visibility to the finance team in cash optimization, bank accounts control, manage liquidity, and compliance. Helps to address critical planning, processing, and reporting requirements of global treasury units. Provide real-time information on global transactions across bank accounts and credit cards
- **Payment Management:** The platform accepts a variety of credit card, debit card, and other electronic forms of payment for online payment processing needs with SuitePayments API for payment gateway integration to suit different geographical markets

Source: Oracle NetSuite, Finance and Accounting, [Link](#)

Oracle NetSuite Financials Capabilities (2/2)

- **Invoice and Billing Management:** Framework that connects financial process with transactions, subscriptions and projects to the billing engine. Allow users to create rating model and support complete integration with revenue management and ASC 606
- **Revenue Recognition:** The solution automates revenue forecasting, allocation, recognition, reclassification, and auditing through a rule-based event handling framework in accordance with IFRS 15, ASC 606, and ASC 605
- **Planning and Budgeting:** Allows organizations to plan budget using what-if model and provides comprehensive report. The capabilities include:
 - Revenue and expense projections with pre-built reports, templates, and added insights
 - Allow users to create model for CapEx planning and helps in decision making
 - Built-in intelligence and analytic to manage Travel and Expense
 - Helps to streamline workforce related expenses, such as head count, salary, and compensation planning
 - Financial Statement Planning provides the ability to plan, budget, and forecast balance sheet and cash flow
 - Dynamic modelling and bi-directional integration with Microsoft Office tools for visualization
 - Pre-built statistical modeling engine with dashboard to optimize planning and forecast estimates with multiple predicted values
- **Financial Reporting:** Flexible, multi-dimensional reports to track real-time operational data. Financial Report Builder tool allows users to customize financial statements based on reporting requirements with various accounting standards, e.g. US GAAP and IFRS
- **Global Accounting & Consolidation:** Provides multi-currency management; supports 190+ currencies with multi-language support (~19 languages). Built-in tax engine with cloud pre-configuration of tax codes reporting for 50+ countries
- **Governance, Risk and Compliance (GRC):** Helps to ensure compliance with international IT and security standards. Supports multiple reports and certificates such as SOC 1, SOC 2, ISO 27K, PCI/PA-DSS, etc.

Source: NetSuite; SuiteBilling: Invoice and Billing Management, [Link](#); NetSuite, Revenue Recognition, [Link](#); NetSuite, Planning and Budgeting; [Link](#); NetSuite, Financial Reporting, [Link](#); Global Accounting & Consolidation; [Link](#); NetSuite, GRC, [Link](#)

Oracle NetSuite Procurement Capabilities (1/2)

Oracle NetSuite Procurement solution: Streamlines procure-to-pay process and provides visibility on company procurement spend and vendor performance

Source: Helps to streamline the process of vendor management, RFQ's, contracts establishment, and policies enforcement

- **Vendor Management:** The platform helps to onboard, track, analyze, and audit vendors on a regular basis using workflows and vendor scorecard to keep leadership informed on vendor performance. The vendor portal feature allows users to quickly collaborate on current and future projects
- **Request For Quote:** One screen view to gather requirement, select vendor, communicate specification, receive bids, and update pricing. The system automatically updates vendor information and item records in the master data based on the vendor selection
- **Purchase Contracts:** Helps to establish commercial terms, ensure compliance, and automate RFQ process. The module also tracks total purchase amount, billed and received values
- **Blanket PO's:** Allow users to track specific delivery schedules. Combined with Purchase Contracts, Blank PO's provide complete control over receive products timeline and agreed payment by the organization

Purchase: Helps in automation of requisitioning and purchasing processes with configurable procurement dashboard

- **Purchase Requisition:** Helps in complex workflow approvals with user-definable workflows and automate routing
- **Purchase Order Management:** The module helps to automate the purchase order management process and provide one screen view to monitor purchase items generated from supply planning process, blanket PO's or re-order point parameters. The system can be customized to generate reminders to inform delivery details
- **Approvals:** Supports simple to complex approval process, utilize SuiteFlow approval routings with customizable sample workflows and graphical interface to monitor the process. Workflow can be modified based on department budgets, location, item type, and project

Source: Oracle NetSuite, Procurement, [Link](#)

Oracle NetSuite Procurement Capabilities (2/2)

Pay: Provides configurable workflows to optimize cash flow. Improves transparency and enhance vendor relation

- **Item Receipt:** Provides flexibility to receive items from vendors and other subsidiaries across locations with same transaction. Vendor Portal allows suppliers to view the latest relevant information any time
- **Vendor Bills:** Provides visibility and helps to track payables at any point during the billing cycle. Offer the option to upload vendor bills manually, via CSV file or through web services
- **3-Way Match and Pay:** Validates vendor bill against the details of its corresponding purchase order and item receipt, automatically approve the bills that comply based on pre-defined specifications and route the non-matching bills to the supervisor for review. The module provides the following benefits:
 - Helps to identify issues by highlighting specific variances between the transactions
 - Inventory levels can be monitored and maintained by finding variances between transactions

Source: Oracle NetSuite, Procurement, [Link](#)

Oracle NetSuite

Strength

Oracle NetSuite has experienced growth in the small to mid-size customer segment on account of the following:

- It is economic to deploy as the architecture, cost of deployment, and maintenance of the software is spread across multiple customers
- The reporting dimensions of NetSuite is one of its strengths. Every transaction can be monitored and tracked, thus, helping in deriving insights
- NetSuite has a strong foundation of packages specific to the country. It is deployed in and these packages are pre-equipped with accounting rules followed in the corresponding country
- NetSuite supports an array of integrations with nominal manual intervention, thus, ensuring easy development, deployment, and governance of data flows between applications

Weakness

- NetSuite is public-cloud deployed, thus, making it unsuitable for some industries where privacy is of utmost importance. NetSuite does not offer an option to deploy privately
- The high amount of customizations available to the users also bring the need for maintaining elaborate documentation and reference on custom-built workflows
- Building reports has been a tedious and cumbersome process according to many users
- User interface can be improved according to numerous users. This will help make the process of managing multiple profiles easier and more efficient
- Testing instances (Sandboxes) provided by NetSuite are expensive and its production refresh is restricted, thus, making it difficult for the software team to run multiple test runs

Source: Gartner ERP Market Share Analysis 2020 report; Trustradius, Oracle NetSuite ERP, [Link](#);

Oracle NetSuite ERP | Key Risk Areas

Technology

- Increasing competition from open source software initiatives by existing or new competitors, such as ERPNext, inoERP, iDempiere, etc. could affect the sales and customer base
- Continuously evolving technologies such as machine learning and artificial intelligence are forcing service providers to enhance products and leads to increase in the infrastructure costs and delivery timeline

Finance

- COVID-19 pandemic has affected the company and customer base in respective business, therefore, it is expected to impact future operations and financial performance
- Focus towards mid-size companies could adversely affect the growth and revenue of the company

Implementation and Support

- Oracle customers depend on support organization for resolving technical issues related to applications and infrastructure; a failure in offering high-quality technical support services may affect customer relationships
- Covid-19 pandemic has created material shortages and affected the supply chain, resulting in increased implementation time

Source: Oracle, 2020 10K report, [Link](#); Oracle NetSuite, Customer, [Link](#)

Oracle NetSuite Case Studies (1/2)

Case study 1- Scoot Airlines

- **Challenge:** Start-up company owned by Singapore Airline, Scoot Airlines, faced the challenge of implementing a cloud ERP system that was compatible with its parent company's SAP software and offered fast deployment and cost-efficiency
- **Solution provided:** Deploying NetSuite International, NetSuite Fixed Asset Management
- **Benefits/outcome:** Deploying NetSuite Financial Cloud resulted in:
 - Enabling running vendor payments, revenue management, and fixed asset management for a fleet worth approximately SGD\$2 billion
 - Automation of accounting processes, which allowed savings to be invested into aircraft fleet expansion
 - Availability of real-time financial performance and vital expenditures that helped management in strategic business decisions
 - Helped in process optimization of additional 15 destinations across Southeast Asia and Australia to its existing destination portfolio

Case study 2- Harcourts International

- **Challenge:** Real Estate company, Harcourts International, operating nearly 900 offices globally, faced difficulty in standardizing its financial processes using the existing financial software - Attaché BI; decentralization of databases, manual data entry, small financial team size, and manual report generation were correlated challenges
- **Solution provided:** Deploying NetSuite OneWorld, NetSuite Fixed Assets, NetSuite Infinet Cloud, NetSuite Solution 7, and NetSuite Expensify
- **Benefits/outcome:** Deploying NetSuite Financial Cloud resulted in:
 - Automation of time-consuming tasks like management of financial data, reporting, and payroll
 - Reduced cycle time in preparation of monthly reports from 10 days to 6 days
 - Centralization of databases removed the requirement of expanding the finance team size
 - Optimized resources and reallocation of staff hours to other business functions
 - Reduction in paper consumption promoted environmental protection

Source: Oracle NetSuite, Scoot Airlines case study [Link](#); Oracle NetSuite, Harcourts International case study [Link](#)

Oracle NetSuite Case Studies (2/2)

Case study 3- Al Sharqi Shipping LLC

- **Challenge:** With more than 200 global partners, Al Sharqi Shipping Co. faced challenges related to large scale expansion like management of complex supply chains, multiple currency billings, and freshly issued VAT regulations in its home country, UAE
- **Solution provided:** Deploying NetSuite OneWorld
- **Benefits/outcome:** Deploying OneWorld resulted in:
 - Increase in the year-on-year revenue growth rate by ~30 percent
 - Surge in the volume of containers transported to 15,000, an increase of 15 percent as compared to the previous fiscal year
 - Adherence to and adoption of new VAT rules, tax laws, and tax calculation in the UAE
 - Reduction in the time taken by employees to batch invoices of customers from 5 days to 6 - 8 hours
 - Reduce in invoicing FTEs by 50% and improved cash conversion cycles

Case study 4- Quicken

- **Challenge:** Personal finance software provider, Quicken, faced the challenge of transitioning from an on-premise system after its divestiture from the parent company – Intuit
- **Solution provided:** Deploying NetSuite OneWorld, NetSuite Advanced Inventory, and NetSuite Advanced Procurement
- **Benefits/outcome:** Deploying NetSuite Procurement Cloud resulted in:
 - Adoption of complex revenue recognition processes for various product lines
 - Improved integration with third party applications enabling a smaller accounting team to perform functions
 - Divestiture deadlines were met as a result of reduction in the implementation time to 5 months
 - Availability of real-time insights leading to improved ability to customize products as per requirements
 - Increased sales of both traditional licenses and SaaS solutions

Source: Oracle NetSuite, Al Sharqi Shipping Co. case study [Link](#); Oracle NetSuite, Quicken case study [Link](#)

Vendor profile - SAP S/4 HANA

SAP S/4HANA Overview

Key statistics

- Revenue: US\$31.3 billion (FY20)
- HQ : Walldorf Baden-Württemberg
- Geographical presence: Offices in more than 78 countries
- Ownership: Public (NYSE, SAP)
- # of employees: 95,853
- Customer base: 440,000
- Transaction volume: NA

Market perception

- Recognized as Leader in 2020 Gartner Magic Quadrant for procure to pay suites
- SAP was named a leader in digital operations platforms for distribution businesses by independent research firm
- SAP S/4HANA was named a leader in the Forrester Wave in its evaluation of digital operations platforms for manufacturing businesses

Key partnerships

- Partnership with Capgemini helps the company provide innovation through its ERP suite of SAP S/4HANA. Capgemini was positioned as a leader in Gartner's 2020 magic Quadrant for SAP S/4HANA Application Services
- Strategic partnership with HCL helps businesses adopt Internet of Things (IoT) and innovation

Key industries served: Energy and Natural Resources, Aerospace and Defense, Automotive, Banking, Insurance, Telecommunications, Lifesciences, Retail, Healthcare, Sports and Entertainment, Oil and Gas, Utilities, Agribusiness, Media, Professional Services, etc.

Key clients: Bentley Motors, Lloyd, AIG, Toyota, Coca cola, Britannia, Exide, Raymond

Industry innovation & Proprietary Technology

- **Universal journal-** The universal journal covering general ledger, profitability analysis, control, asset accounting and inventory is combined in a single table, reduces administrative tasks
- Financial closing- Figures consolidation occurs at a centralized group level which makes the closing process faster, more accurate and simple
- Simulations are used to predict the future

Eminence in the space

- Ranked #12 in the World's Best Workplaces 2020 report published by Great Place To Work
- Recognized consistently as the world's best places to world by Glassdoor
- Ranked #58 amongst the Fortune 100 best companies to work for in 2019

Source: SAP Website, [Link](#); SAP offices, [Link](#); SAP customers, [Link](#); SAP Clients, [Link](#); Gartner Magic Quadrant, [Link](#); SAP news, [Link](#); The Forrester Wave, [Link](#); Capgemini Partners, [Link](#), [Link 2](#); HCL Partners, [Link](#). Great Places to work, [Link](#); Glassdoor – SAP, [Link](#); Fortune 100 best companies to work for – 2019, [Link](#)

SAP S/4HANA Finance Capabilities (1/2)

- **Financial planning and analysis:**
 - Eliminating redundancy and time lag by using real time operational data and by embedding end-to-end planning process
 - Creating ad hoc simulations of new business models in your ERP system
 - Running in-depth financial analysis using a single table
- **Accounting and financial close**
 - Viewing live reporting with drill down functionality for any dimension
 - Using a consolidated data model to simplify processes, improving productivity and reducing risk
 - Executing tasks and processes in real-time
- **Treasury and financial risk management:**
 - Getting real-time visibility of bank balances and currency exposures
 - Enabling comprehensive central bank account management
 - Integrating cash flow analysis and business planning lifecycles
- **Enterprise risk and compliance:**
 - Detecting real-time fraud at transactional level
 - Centralizing fund management to optimize monitoring and investigation
 - Running real-time simulations
 - Calibrating detection strategies for minimizing false alarms
- **Collaborative finance operations:**
 - Responding to market dynamics changing rapidly
 - Automating receivables and payables processing
 - Streamlining travel management
- **Receivables management:**
 - Reducing costs and efforts associated with running account receivables by increasing automation
 - Recording and managing accounts receivables data for all customers

Source: SAP S/4 HANA Finance, [Link](#)

SAP S/4HANA Procurement Capabilities (2/2)

- **AI capabilities:** SAP S/4 HANA deploys artificial intelligence (AI) and intelligent robotic process automation (RPA) to improve employee efficiency, and enabling informed decision making
- **Purchasing insights:**
 - Providing extensive in depth insights on purchasing spend
 - Analyzing orders, purchase requisitions, contracts and invoices
 - Evaluating supplier performance
- **Operational purchasing:**
 - Buying goods and services directly
 - Bundling demands, automating processes, and simplifying approval and release
- **Sourcing and contract management:**
 - Supporting automated and manual processes for creating and managing procurement documentation
- **Central procurement:**
 - Reducing procurement costs and increasing catalogue use
 - Consolidating requisitioning across business units and geographies
 - Handling Central Purchase Requisitions, Central Purchase Contracts and Central Purchase Orders
 - Integrating direct material sourcing
 - Enabling UI navigation into respective backend as single source of truth
- **Commodity procurement:**
 - Enabling commodity procurement and creating commodity contracts based on market quotes
 - Streamlining invoicing
 - Extending ERP functionality
 - Automating price calculations
- **Commodity requisitioning:**
 - Providing full visibility of business process flow and relevant documents in connected backends
 - Centrally confirming or returning goods receipts from the requestor's central purchase requisition work list

Source: SAP S/4 Hana Procurement, [Link1](#), [Link 2](#)

SAP S/4HANA

Strength

- SAP S/4 HANA had significant sales that helped drive new license sales and subscriptions revenue in operational ERP and financial management
- Suitable for mid-sized as well as large enterprises
- It's a highly configurable and customizable software to manage large businesses across multiple countries
- S/4HANA can drive instant value across all lines of business, irrespective of industry or business size
- It can provide personalized, consumer-grade user experience

Weakness

- Implementation time and cost are very high compared to other ERP systems making it very costly for the small businesses
- Maintenance cost is very high
- SAP S/4 HANA did not qualify for the number of live customers required for this Magic Quadrant
- It has a slightly complicated learning curve, hence not considered to be very user-friendly

Source: Gartner Market Share Analysis, [Link](#); Gartner Magic Quadrant, [Link](#); Software advice, [Link](#)

SAP S/4HANA: Key Risk Areas

IT/ Compliance

- Risk of insufficient scoping of performance load and stress testing cycles
- Risk of system degradations after go-live due to having executed test cycles on a non-production like environment
- Risk of security breaches due to the insufficient hardening of the (non-compliant) security baseline

Data Migration

- Risks related to data migration and assessing complex migration projects to address data migration related risks
- Risks related to monitoring data migration and reconciliation procedures
- Risks of implementing data and object consistency and completeness to mitigate both financial and operational risks
- Re-performing a selection of reports appropriate for financial statement audit purposes
- Risk of having one cycle for data migration and reconciliation activities
- Risk of not having sufficient time to incorporate data migration and reconciliation experience in preproduction test cycle, fixes need to be right first time for production

Infrastructure and Implementation

- Ensuring new technology and hardware is in place within the data centers to be able to operate the new SAP S/4HANA systems
- Providing feedback on the mechanisms in place for achieving compliance, control and security over the new and/ or updated data centers
- Aligning SAP landscape infrastructure service model and the specific HANA architecture
- The future end-to-end business processes are not designed, documented in detail
- Absence of a defined strategy for business-data validation as an entry criteria to each test cycle

SAP S/4HANA Case Studies (1/2)

Case study 1- Accenture

- **Challenge:** Accenture's non-standardized processes and workflows prevented the company from implementing end-to-end digital procurement processes. Its disconnected workflows and a complex user experience resulted in a high amount of off-catalog purchases and manual processing of SOW-based spend, which resulted in higher costs and reduced control of buying behaviors
- **Solution provided:** Single, digital platform based on SAP S/4HANA® to support the Intelligent Spend Management Concept, Procure-to-pay process automation using the SAP® Ariba®, manage services based on SOW using SAP Fieldglass® and others
- **Benefits/outcome:** Deploying SAP S/4HANA and Intelligent Spend Management concept enabled:
 - Better purchasing experience
 - Accelerated procure-to-pay process
 - Enhanced procurement efficiency
 - Enabled guided buying capabilities through RPA and machine learning
 - Measure progress and refine company's capabilities and approaches
 - Reduced costs by directing buyers to products with contracted prices

Case study 2- Danfoss

- **Challenge:** Danfoss faced challenges in evaluating visibility into indirect spend processes and maintaining employee productivity during expansion and change. Additionally, the suboptimal procurement and expense management processes were slow and cumbersome for employees to use
- **Solution provided:** SAP S/4HANA®, SAP® Ariba®, and SAP Concur®
- **Benefits/outcome:** Deploying SAP S/4HANA solutions resulted in:
 - Successful deployment without supply chain disruptions
 - Procurement related process automation
 - Improved infrastructure agility
 - Robust supply chain with environmentally friendly choices
 - Simplified travel booking and expense reporting
 - More time for HR to focus on better programs for employees and the city thanks to new self-service processes
 - Mobile apps to approve requisitions and reimbursements

Source: Accenture: Delivering the Next Generation of Intelligent Procurement, [Link](#); Danfoss: Simplifying Procurement and Expense Management, [Link](#)

SAP S/4HANA Case Studies (2/2)

Case study 3- Honda, Australia

- **Challenge:** Honda's legacy systems were out of date, and the company was spending too much time supporting customized development. The company also wanted effective working and bring in transparency in its processes
- **Solution provided:** SAP S/4HANA®, SAP S/4HANA Finance solution, SAP Vehicle Management for Automotive package, SAP Warranty Management application, SAP Fiori®user experience and apps, SAP HANA®Enterprise Cloud and others
- **Benefits/outcome:** By deploying SAP HANA, Honda was able to:
 - Enable common automated business processes
 - Integrate finance, reduce manual consolidation errors and improve accuracy
 - Enable efficient online processes for Honda Australia motorcycles and power equipment dealerships
 - Automate business processes by 80-90 percent
 - Enhance dealer productivity and bring transparency in sales and procurement

Case study 4- SMA Solar Technology

- **Challenge:** SMA Solare Technology had rigid management reporting and time-consuming number crunching processes and required more flexible and interactive management reporting processes for its finance function to could eliminate the paperwork and be transitioned to a fully digital platform
- **Solution provided:** SAP Analytics Cloud and SAP Business Warehouse powered by SAP HANA
- **Benefits/outcome:** Deploying SAP HANA solutions resulted in:
 - Interactive and self service approaches
 - A single source of data models, authorizations and roles
 - Savings in time and resources
 - Flexible management reporting
 - Reduced manual efforts with more flexible and individual analysis

Source: How Is a Unified Digital Platform in the Cloud Helping Move Vehicles Faster and More Efficiently?, [Link](#); How Does an Analytics Dashboard Provide New Insights to Key Decision-Makers?, [Link](#)

Vendor profile - Workday Cloud ERP

Workday Cloud ERP Overview

Key statistics

- Revenue FY20: US\$3.6 billion (*Subscription services drive 85% revenue*)
- HQ: Pleasanton, California, USA
- Geographical presence: Operates in 80 countries
- Ownership: Public (NASDAQ: WDAY)
- # of employees: ~12,200
- Customer base: ~7,900 global customers
- Transaction volume: NA

Market perception

- Recognized as Leader in the 2020 Gartner Magic Quadrant for Cloud Core Financial Management Suites for midsize, large and global enterprises for the 4th time in a row
- Recognized as a Leader in the 2020 Gartner Magic Quadrant for Cloud Financial Planning and Analysis Solutions

Key partnerships

- Deloitte is a Workday Services Partner and a leader in Workday HR and Finance consulting services
- Accenture partnered with Workday Services to provide Workday powered transformation, Cloud ERP services, Workday application management, financial management, and HCM services
- PwC is a designated Workday Services Partner providing Workday solutions that helps businesses improve workforce management with human capital management solutions

Key industries served: Communications, Energy and Resources, Financial Services, Government, Healthcare, Higher Education, Hospitality, Insurance, Manufacturing, Media and Entertainment, Professional and Business Services, Retail, Technology, etc.

Key clients: HP, AirAsia, WB, Netflix, Abbott, Gap Inc, Simmons Bank, AthenaHealth, Chevron, Bank of America, Citi, Aldo, Dentsu Aegis Network, Airbus, Diageo, Dow, GE, Flex, Haier, Deloitte, CapTech, etc.

Industry innovation & Proprietary Technology

- **Workday's Business Process Framework:** Manages transaction, helps in Audit, internal control, and governance
- **Natural Language Processing (NLP):** The tool learns and understands the requirement of users over time to suggest actions in the form of notification by using NLP and machine learning

Eminence in the space

- Ranked #4 in the 100 Best Companies to Work For list by Fortune and Great Place to Work (GPTW) Institute 2020
- Ranked #1 on 2019 Fortune Future 50
- Workday has been ranked Best in KLAS for ERP and Category Leader in Talent Management for third year in a row

Source: Workday, 2020 10K report [Link](#); Workday, Gartner Magic Quadrant, [Link](#); Workday, Gartner Magic Quadrant; [Link](#); Workday, Key partnerships, [Link](#); Workday, Fortune's List, [Link](#); Workday, Fortune, [Link](#); Workday, Awards, [Link](#)

Workday Cloud Financial Capabilities

Workday Financial Management : This product offering from Workday equips the client with relevant financial information and insights available on a user-friendly interface. The key functions within this module include:

- **Accounting and Finance:** This suite provides a single platform in integrating multiple business entities in completing intercompany transactions, allocations, adjustments, and consolidated reporting. Other areas included within the Accounting and Finance segment comprise:
 - Bank account management and reconciliation
 - Forecasting of cash balances and liquidity
 - Asset accounting, disposals, and transfers & calculation of depreciation of assets
- **Financial Planning:** Helps in streamlining the process of budgeting and forecasting. The system is dynamic, thus, enabling adjustability with the change in business priorities as well as change in market situations
- **Audit and Compliance** : Workday's Business Process Framework (BPF) is built into the module and helps in auditing every transaction in real time. It also helps organizations to integrate regulations that would in turn increase process visibility and reduce risks
- **Revenue Management:** The revenue management system integrated with the customer relationship management system provides an all-round view of the customers by configuring contract management, billing schedules, and customer collections
 - Contract management includes overseeing the contracts with customers as well as customer engagement. It also encompasses automated billing, credit card payments, configuration of billing rates, and reporting
 - Revenue recognition involves revenue reporting & forecasting and managing revenue schedules
- **Financial Reporting and Analysis:** Workday helps in simplifying financial consolidation by eliminating the requirement of batch processing. All systems are dynamic in nature, thus, enabling on-the-go updates and reports
 - Financial scorecards and interactive dashboards help the executives in better visualization of the data along with comprehensive insights
 - Predictive and prescriptive analytics is also used for profitability analysis and to ensure informed decisions and strategies
 - Language translations and country-specific configurations are also available, thus, bringing consistency in the system for multinational organizations
- **Spend Management:** Workday expenses allow employees to submit and approve expense reports, thereby reducing costs, increasing accuracy and ensuring faster reimbursements

Source: Workday Financial Management, [Link](#)

Workday Cloud Procurement Capabilities

Workday Procurement: Workday Procurement provides end-to-end procure-to-pay functionality in a single integrated platform while Workday Inventory is a solution for materials management process for goods and supplies. The key functions within this module include:

- **Goods and Services Procurement:** Helps in monitoring and streamlining the procurement process. Major tasks include:
 - Creation of requisition, Request For Quote (RFQ), and comparison of RFQ responses
 - Invoice creation from receipt
 - Service coordinator console can be used for manual sourcing
 - Task log entry, entry of ship-to and deliver-to information on procurement documents
- **Supplier Management:** Helps in management of suppliers through the supplier portal that allow the suppliers to maintain their personal information as well as their purchase orders, Request For Quotes (RFQ), and invoices
 - It also increases the speed of processing of payments while improving supplier maintenance
 - The RFQ dashboard helps in delivering RFQ documents electronically and also facilitates collaboration with the suppliers
- **Supplier Contracts:** It helps to manage and record agreements with the suppliers. Additionally, it helps to define contract renewal terms and notifies before the contract expires
 - Helps to monitor contractual spend and assists in amendment of supplier contracts
- **Reporting and Insights:** User-friendly procurement and supplier account dashboards provide real-time consolidated spend insights, thus, making the process of standard reporting more efficient
 - The embedded analytics draws insights from the transactional data, thus, making it easier to understand the stance of the organization
- **Spend Control:** Spend control systems provide a detailed view into every transaction that are tagged through various reporting dimensions such as work-tags
 - Helps in monitoring and identifying any outliers in expenses, spend freezes, approval processes, and managing two-way and three-way matching of invoices
- **Integrations:** Workday procurement is integrated with Workday Financial Management, Workday Inventory, and Workday HCM, thus, ensuring immediate accounting impact in case of any errors or outliers in the procurement system
 - Integrations also help in global readiness through multi-language capability and consistency and auditability of business processes

Source: Workday Procurement, [Link](#)

Workday ERP

Strength

- According to Gartner, Workday is the largest cloud services provider for Financial Management and Human Capital Management
- User interface and user experience provided by Workday Cloud ERP have gained popularity because of its user-friendliness and intuitive nature
- Workday has opened its tools to third-party developers to improvise add-ons and other softwares that work within the Workday platform. This in turn allows Workday to further extend its footprint into other parts of organizations
- Workday ERP has a strong security system that requires multi-factor authentication for additional security of employee data. The system also records all downloads and other activities in its history

Weakness

- Workday lacks offline operational capabilities, thus, reducing its appeal to many customers
- Compared to Oracle and SAP, Workday is new to the industry and has a smaller customer base presently, though it is steadily increasing
- Though Workday is used by many larger organizations, its financial and other ERP capabilities are often not suitable for more complex organizations
- According to Third-stage consulting group, Workday ERP implementation is relatively cumbersome owing to the lack of experienced consultants who manage the implementation process
 - This is a result of rapidly expanding Workday ecosystem, thus, leading to a deficiency of experienced consultants

Source: Gartner ERP Market Share Analysis 2020 report; Trustradius, Oracle NetSuite ERP, [Link](#); Third-stage consulting, Review of Workday, [Link](#)

Workday Cloud ERP | Key Risk Areas

Technology

- Some application of Workday utilize open source licenses, GNU General Public License, and the Apache License; failures or restrictions in these licenses could affect the sales and customer base
- Evolving technologies such as ERP 2.0, machine learning, and artificial intelligence are forcing service providers to enhance products and also leads to increase in the infrastructure costs and delivery timeline

Finance

- COVID-19 pandemic has affected the company and customer base in respective businesses, therefore, it is expected to impact future operations and financial performance
- Revenue might get affected due to established competitors, such as Oracle and SAP, and regional competitors, such as Automatic Data Processing and Infor, having long-standing relationships with many customers and some are hesitant to switch vendors or to adopt cloud applications

Implementation and Support

- Workday depend on third parties organization for data centers and computing infrastructure; disruption in these operations may affect the business
- Workday depends on relationships with third parties such as deployment partners, content providers, suppliers, third parties for the license, and development tools. Growth depends on the strategic relationships with third parties and their ability to integrate the applications with a variety of third-party technologies

Workday ERP Case Studies (1/3)

Case study 1- P.F. Chang's

- **Challenge:** Founded in 1993, and operating more than 500 restaurants globally along with its sister companies, P.F.Chang's faced the challenge of precisely understanding their margins and cost structures via a single FP&A platform. Also, there was a difficulty in measuring crucial KPIs and extending budgeting, forecasting, and planning to individual restaurant operators
- **Solution provided:** Workday Adaptive Planning
- **Benefits/outcome:** Deploying the Workday Adaptive Planning resulted in the following benefits:
 - Close to 400 individual restaurant partners started to maintain, manage, and report their income statements
 - Reduction in forecasting cycle times by around 80 percent
 - Development of planning models that incorporate both finance and operational KPIs simultaneously making comparison with industry peers easier
 - Possibility of synchronizing individual restaurants with corporate finance and availing real-time data analytics & insights

Case study 2- TMX

- **Challenge:** A digital and analytics solution company, TMX operated with finance legacy systems that led to costly and time-consuming IT processes and increased their dependency on third parties; faced challenges post-merger integrations in organizational management
- **Solution provided:** Workday Financial Management, Workday HCM, Workday Payroll and Workforce Management, and Workday Business Planning
- **Benefits/outcome:** Deploying the Workday Financial Management resulted in:
 - Reduction in annual maintenance and infrastructure costs by US\$ 0.64 million; reduction in IT maintenance time by 60 percent
 - Decrease in the total number of ledger accounts from 1,859 to 231 which led to an annual saving of US\$ 0.55 million in financial labor costs
 - Reduction in time to integrate an acquisition from 12 months to 4.5 months which enabled a US\$ 0.6 million reduction in external consultancy charges
 - 50 percent reduction in external audit requests

Source: Workday, P.F. Chang's case study, [Link](#); Workday, TMX case study, [Link](#)

Workday ERP Case Studies (2/3)

Case study 3- HubSpot

- **Challenge:** With an annual subscription growth rate of nearly 30 percent, operating in 100+ countries, and having a customer base of 60,500+ customers; HubSpot faced difficulties arose as a result of ad hoc forecasting, manual financial data entry, and data consolidation along with its growth rate maintenance
- **Solution provided:** Workday Adaptive Planning
- **Benefits/outcome:** Deploying the Workday Adaptive Planning resulted in:
 - Reduction in the forecasting time by nearly 15-20 percent due to the automation of allocations, global tax benefits, and payroll tax assumptions
 - Access to self-service reporting helped to strike a balance between standardized and customer reporting at all levels of the organization
 - Automation of employee costs like insurance and travel costs along with built-in assumptions made calculations easier and faster

Case study 4- University of Arizona

- **Challenge:** University of Arizona faced the task of making efficient decisions across its complex portfolio of grants, contracts, and projects periods. Grant and contract budgeting, time-consuming manual data entry, and bookkeeping processes along with the pressure of winning grants were the other challenges
- **Solution provided:** Workday Adaptive Planning
- **Benefits/outcome:** Deploying the Workday Adaptive Planning resulted in:
 - Reduction in grant account workflow processes by nearly 80 percent
 - Improved decision making for the optimum utilization of grants funding that were previously received
 - Application of data analytics and insights to win new contracts and grants

Source: Workday, Hubspot case study, [Link](#); Workday, University of Arizona case study, [Link](#)

Workday ERP Case Studies (3/3)

Case study 5- CNA

- **Challenge:** CNA, a commercial property and casualty insurance company in the US, had an on-premise system that required plenty of customizations; its finance department burdened its IT department with process execution requests
- **Solution provided:** Workday Financial Management, Workday HCM, Workday Business Planning, Workday Expenses, and Workday Accounting Center
- **Benefits/outcome:** Deploying the Workday Financial Management resulted in:
 - 30 percent reduction in the finance system annual spend
 - 59 percent reduction in the number of ledger accounts and creation of 9 new reporting dimensions
 - Savings of US\$ 0.6 million annually courtesy of a built-in lease accounting functionality
 - Accessibility to real-time data and elimination of the need to customize
 - 27 percent improvement in IT efficiency owing to system's flexibility

Case study 6- UNUM

- **Challenge:** A leading provider of financial protection benefits, UNUM was using an on-premise system containing 39 applications, including both Finance and HR applications, which burdened both the teams with multiple sources of information and its maintenance
- **Solution provided:** Workday Procurement, Workday Financial Management, Workday HCM, Workday Business Planning, and Workday Prism Analytics
- **Benefits/outcome:** Deploying the Workday Financial Management resulted in:
 - Reduction in number of applications from 39 to 17 which led to US\$ 0.2 million in net annual cost savings and US\$ 1.4 million in upgrade cost avoidance
 - Reduction in the period close, accounts payable, compensation planning, and upgrade management cycle times; decrease in the financial year-end roll forward from 3 days to an hour
 - Savings of US\$ 2.5 million in the annual purchase of goods/services
 - Improved ability to take data-driven strategic decisions related to turnover, retention, vendor spend, diversity, inclusion, etc.
 - Development of a faster application process and improved digital experience with 50 percent reduction in applying time

Source: Workday, CNA case study, [Link](#); Workday, UNUM case study, [Link](#)

Vendor profile - Oracle Cloud ERP

Oracle Cloud ERP Overview

Key statistics

- Revenue FY20: US\$39 billion (*Cloud and License business drives 83% revenue*)
- HQ: Redwood, California, USA
- Geographical presence: Offices in 75+ countries
- Ownership: Public (ORCL)
- # of employees: ~135,000 (*~19,000 in cloud services and license support operations*)
- Customer base: ~430,000

Market perception

- Recognized as Leader in 2020 Gartner Magic Quadrant for Cloud Financial Planning and Analysis solution
- Recognized as Leader in 2020 Gartner Magic Quadrant for Cloud ERP for Product-Centric Enterprises
- Recognized as Leader in 2020 Gartner Magic Quadrant for Transportation Management System

Key partnerships

- Accenture is a Global Cloud Elite partner, provides cloud ERP solution
- PwC is **Global Cloud Elite partner** collaborating with Oracle Cloud technology in ERP and Finance
- Partnership with Infosys to implement, deploy and manage Oracle ERP Financials Cloud
- Partnership with Inspirage to deliver industry-specific cloud ERP and SCM solution

Key industries served: Information Technology & Services, Financial Services, Hospital & Health Care, Government Administration & Public Sectors, etc.

Key clients: All Nippon Airways, Air Asia, General Electric Company, Emblem Health, David Jones, Scottish Water, True Blue, HSBC, Orange, Western Digital, Capgemini, Sandhar Group, The Fedcap Group

Industry innovation & Proprietary Technology

- **Accounting engine:** Centralized accounting engine to handle high volumes of transaction
- **Mobile Application with Digital Assistant:** Helps to enter expenses information with voice commands and receipt images
- **Intelligent supplier payments:** The system provides payment discount recommendations for supplier based on transaction history

Eminence in the space

- 2019 ERP Emotional Footprint Awards, SoftwareReviews names Oracle ERP Cloud one of the top four vendors (with a net promoter score of more than 97 percent from users) in its category with the highest rating for its security features ability to protect
- In 2019, Oracle published a white paper on 'Oracle Enterprise Resource Planning Cloud Service Implementation Leading Practice'

Source: Oracle, 2020 10K report, [Link](#); Oracle, Corporate Fact, [Link](#); Oracle, ERP Cloud Procurement, [Link](#); Oracle, ERP Cloud Financials, [Link](#); Oracle, Market perception, [Link](#); Oracle Partnership, [Link](#); Oracle Awards, [Link](#); Oracle, White Paper, Oracle Enterprise Resource Planning Cloud Service Implementation Leading Practice, [Link](#)

Oracle Cloud Financials Capabilities (1/2)

Oracle Cloud Financials: The finance module provides a comprehensive solution for managing accounts, FP&A, accounts payable, accounts receivable, revenue and expenses with real-time dashboard

- **Accounting Hub:** Single platform for corporate finance and FP&A with an accounting engine that integrates and aligns information from multiple sources, enforces accounting policies and generates reports/insight by analyzing financial information
- **Receivables:** Helps in streamlining customer payments, provides self-service customer portal for managing bills. Users can create customer base by utilizing Trading Community Model, which allows information sharing on billing, shipment and payment activities between customer accounts
- **Collections:** The module can increase the efficiency of collection process by automatically sending payment request letters to customers and assign follow-up calls to collection agents. Indicates high-risk accounts by scoring customers and provide dashboard with in-built KPIs, includes days sales outstanding, average days delinquent, weighted average and promise metrics, to assess receivables with industry-standard
- **Payables and Assets:** Organizations can optimize the process accounts payable and asset management with;
 - Automated invoice processing, invoices workbench feature helps to resolve issues related to invoices quickly
 - Transaction history and security rules, the system can process invoices and payments for multiple business units
 - Intelligent supplier payments feature with built-in templates, identifies cash requirements by generating cash requirements reports. The system can also give discount recommendations for suppliers
 - Automated invoice taxes calculation for multiple tax types including recoverable & nonrecoverable, inclusive & exclusive and withholding
 - Centralized bank accounts management which consolidates external cash transactions and process bank statements electronically
 - The system forecasts cash requirement by evaluating real time cash flows from bank statements, external transactions, and other sources
 - Increases visibility on assets worldwide with unified assets data. Helps to manage the entire financial cycle of assets, including acquisition, capitalization, depreciation and retirement
- **Revenue Management:** The module helps to recognize revenue at any point of time in accordance with IFRS 15 or ASC 606. Customer contract creation, transaction price and performance obligation can be automated

Source: Oracle, Cloud Financials, [Link](#)

Oracle Cloud Financials Capabilities (2/2)

- **Expense Management:** Provides mobile friendly application with digital assistant for data entry with pre-populate expenses details from credit card transactions. The system administrates expense policies with automated compliance checks for tailored approvals and selective audits
- **Joint Venture Management:** Single platform to manage joint venture partner shares. Leverage rules-based processing to increase efficiency and minimize resolution costs during month-end close time
- **Reporting and Analytics:** Provide graphical insights and configurable analytics dashboards for targeted actions and decision-making. Reporting and Analytics features includes;
 - Generation of financial reports from pre-aggregated data
 - Tailored financial reports with mobile access
 - Interactive analysis of information to analyze costs and profitability
 - Real-time dashboards with drill down feature for detailed information
 - Role-based dashboards for users based on their position and send alerts for tasks that requires resolution

Source: Oracle, Cloud Financials, [Link](#)

Oracle Cloud Procurement Capabilities (1/2)

Oracle Cloud Procurement: The source-to-pay solution help organizations to streamline, automate, and improve procurement process. The solution provide embedded analytics to reduce risk and increase cost savings

- **Supplier Management:** Helps to monitor capabilities, performance, risk and compliance of the suppliers. Improves communication and enable electronic transaction in exchange of contracts, purchase orders, invoices, and negotiation documents through following features:
 - Oracle Fusion Supplier Portal: Provides end to end visibility of the purchase process and summarization of activities
 - Oracle Supplier Qualification Management Cloud: Analyze supplier's financial stability, supply disruptions risk, environmental qualifications and sustainability initiatives
 - Browser-based Self-service portal: Optimizes supplier's repetitive inquiries, miscommunication and manual paper processing
 - On-line surveys: Built-in questionnaires to collect supplier information from internal stakeholders
 - Oracle Social Network (OSN) tool: Access to leadership to evaluate suppliers
- **Purchase:** Oracle Purchasing Cloud streamline and automate procure-to-pay. The solution automatically creates purchase orders from approved requisitions, manages purchase history, ensures compliance and approval policies. Change management capability allow users to modify purchase process according to dynamic business needs
 - Oracle Self Service Procurement Cloud provide user friendly environment for procurement with category management which direct users to preferred suppliers and allow price negotiation. Flexible rules to automate financial accounting for attributes such as amount, commodity and cost center
- **Sourcing:** Oracle Sourcing Cloud reduces training requirements to employees and cycle time of negotiation process by leveraging information from historic events and social collaboration tools
 - Provides live negotiation monitor, reusable styles and templates with question library for supplier negotiation
 - Embedded analytics and key metrics to measure progress in predefined business negotiations objective
 - Enhances collaboration among suppliers and internal stakeholders with online messaging
 - Provides consolidated view of sourcing activities for buyers and suppliers

Source: Oracle, Cloud Procurement, [Link](#); Oracle, Self Service Procurement Cloud, [Link](#); Oracle, Supplier Portal Cloud, [Link](#); Oracle, Supplier Qualification Management Cloud, [Link](#); Oracle, Purchasing Cloud, [Link](#); Oracle, Sourcing Cloud, [Link](#); Oracle, Procurement Contracts Cloud, [Link](#)

Oracle Cloud Procurement Capabilities (2/2)

- **Procurement Contracts Cloud:** Integrated solution with Oracle Procurement Cloud suite help to streamline contracting process, ensures compliance and increase visibility of the agreements at various stages. Oracle Procurement Contracts Cloud helps to execute best practices by;
 - Establishing a library for standard contract terms with centralized contract repository
 - Allowing regional administrators to tailor standards for local and country-specific regulations
 - Providing pre-approved templates in consistent style and layout
- **Supplier collaboration:** Ecommerce platform to streamline partner profile creation, onboarding and electronic transactions. Provides real time view on transaction status and exceptions through automatic email alerts

Source: Oracle, Cloud Financials, [Link](#)

Oracle Cloud ERP

Strength

- Oracle derives major part of its revenue from Financial Management Systems and Human Capital Management Systems
- The software allows various visualizations using the same data thus allowing the users access to a plethora of options that they can choose from to include in their final reporting
- The software provides flexibility and scalability in implementation thus making it suitable for business units of varying size
- Approval workflows with notifications on the dashboard and via email helps employees and their managers in timely handling their approval process
- Oracle Cloud ERP allows ample opportunities of customization thus enabling the customers to tweak the functionalities as per their requirement

Weakness

- As per some users, supply chain management modules are not equipped with as many features as the Financial Management and Human Capital Management modules
- It has been observed that people who are not well-versed with technicalities of the program, learning and getting comfortable with the functionalities of the software proves to be an impediment
- In case the customer doesn't have a standard process that is aligned with the software, changing the settings turns out to be a tedious process as per some customers
- Fluctuations in internet connections are also another hurdle for all cloud softwares in general

Source: Gartner ERP Market Share Analysis 2020 report; Trustradius, Oracle Cloud ERP, [Link](#);

Oracle Cloud ERP | Key Risk Areas

Technology

- Increasing competition from open source software initiatives by existing or new competitors, such as ERPNext, inoERP, iDempiere, etc., could affect the sales and customers base
- Continuously evolving technologies such as machine learning and artificial intelligence are forcing service providers to enhance products and also increasing the infrastructure costs and delivery timeline

Finance

- COVID-19 pandemic has affected the company and customer base in respective business, therefore it is expected to impact future operations and financial performance
- While emerging technology in cloud services continuing to increase in revenue, There has been decline in Hardware revenue (US\$3.9 billion in FY18 to US\$3.4 billion in FY20)
- According to Zacks Market report, Oracle's debt/Equity ratio is ~6.7, high when compared with industry peer group, average 1.14

Implementation and Support

- Oracle customers depend on support organization for resolving technical issues relating to applications and infrastructure, failure to offer high-quality technical support services may affect customer relationships
- Covid-19 pandemic has increased the implementation time leading to material shortages and affecting the supply chain

Oracle ERP Case Studies (1/3)

Case study 1- Capgemini

- **Challenge:** Operating in more than 40 countries, Capgemini faced the need to merge their procurement processes and streamline supplier registration operations. Piloting in North America, the objective was to focus on time management, minimize expenses and develop a robust supply chain, accounting for ~30 percent of its global revenues
- **Solution provided:** Deploying Oracle Procurement Cloud, Oracle Sourcing Cloud Service and Oracle Supplier Portal Cloud Service
- **Benefits/outcome:** Deploying Oracle Procurement Cloud resulted in:
 - 5 percent savings in its first procurement deal post deployment
 - Automation of supply chain processes which reduced administrative process on the supply chain team
 - Enablement of end-to-end negotiation processes with suppliers leading to further cost reduction
 - Reduction in supplier onboarding time from weeks to days
 - 29 percent growth in cloud implementations across existing client base
 - Transparency in supplier activities and rapid generation and sharing of detailed business intelligence reports

Case study 2- AISafwa Cement Company

- **Challenge:** Having a production capacity of 4 million tons per year, AISafwa Cement Company faced the challenge of adopting a new core business system post the split with its partner, LafargeHolcim Ltd, with whom they shared an on-premise system. The organization wanted to improve customer service by optimizing warehouses operations and minimizing IT infrastructure cost
- **Solution provided:** Deploying Oracle Supply Chain Management Cloud, Oracle Enterprise Resource Planning Cloud, Oracle Advanced Customer Services, Oracle Inventory Management Cloud, Oracle Self Service Procurement Cloud
- **Benefits/outcome:** Deploying Oracle Cloud resulted in:
 - Optimum utilization of warehouse space and improved inventory management leading to around 300 customer shipments per day
 - Reduction in the number of employees required for operational reporting from 5 to 2
 - 60 percent reduction in IT costs by eliminating expenses for software and hardware maintenance and upgrades
 - Availability of real-time interactive dashboards to aid managers in decision making

Source: Oracle and Capgemini [Link](#), Oracle and AISafwa Cement Company [Link](#)

Oracle ERP Case Studies (2/3)

Case study 3- EmblemHealth

- **Challenge:** Post its acquisition of a hospital network and a for-profit HMO, insurance provider EmblemHealth faced the problem of a combination of legacy systems running on multiple platforms and databases. As of today, EmblemHealth is required to serve more than 3 million people in the New York City tri-state area covering New York, New Jersey and Connecticut
- **Solution provided:** Oracle Financials Cloud, Oracle Cloud ERP, Oracle Cloud HCM and Oracle SCM Cloud
- **Benefits/outcome:** Deploying Oracle Financials Cloud resulted in:
 - Automation and standardization of financial processes to aid in budgeting, procurement, compensation cycles and goal setting
 - Expects to cut operating costs by ~\$700,000/year by consolidating business processes on Oracle Cloud applications.
 - IT savings of approximately 30 percent over the next 5 years
 - Management of workforce planning in real time
 - Overall savings expected to be close to US\$0.7 million annually

Case study 4- Precision Group

- **Challenge:** Precision group, based out of UAE, had been dependent on a legacy system for nearly 22 years. This manufacturing organization faced problems related to workflow management and vendor valuation in the process of producing mold and aluminum extrusion dies for its clients, which included Unilever and Emirates
- **Solution provided:** Oracle Procurement Cloud, Oracle Self-Service Procurement Cloud, Oracle Purchasing Cloud, Oracle Supplier Qualification Management Cloud
- **Benefits/outcome:** Deploying Oracle Procurement Cloud resulted in:
 - Reduction in purchase order creation time by 40 percent
 - Automation of vendor contracts that led to reduction in processing time by 40 percent
 - Speed of processing transactions has almost doubled
 - Promotion of the idea of cent percent digitalization in their move towards automation

Source: Oracle and EmblemHealth [Link](#), Oracle and Precision Group [Link](#)

Oracle ERP Case Studies (3/3)

Case study 5- RCD Espanyol

- **Challenge:** RCD Espanyol, a Barcelona-based football club which was founded in 1900 used a locally manufactured accounting software prior to its acquisition by a Chinese investor. Limited global access to the club's financial information including branding income and expenses made it difficult for the financial staff and foreign investors to track their operational performance
- **Solution provided:** Deploying Oracle Financials Cloud
- **Benefits/outcome:** Deploying Oracle Financials Cloud resulted in:
 - Reduction in reporting time by approximately 50 percent by combining financial data, automated reports and analytics
 - Digitization of more than 4,000 paper invoices annually leading to a reduction in the payment processing time by 80 percent
 - Reduction in errors related to reporting and invoicing by nearly 25 percent
 - Improvement in billing cycling time as a result of automation of the manual billing processes
 - Reduction in the IT management efforts required to maintain the previously used accounting software

Case study 6- LINX Cargo Care Group

Challenge: LINX Cargo Care Group, a logistics provider in Australia and New Zealand, faced the challenge of avoiding heavy upgrade costs while transitioning its HR, finance and labor planning systems in a short timeframe post its demerger from Asciano

Solution provided: Deploying Oracle Financials Cloud, Oracle Performance Management and Oracle Cloud ERP

- **Benefits/outcome:** Deploying Oracle Financials Cloud resulted in:
 - Avoidance of US\$8 million in upgrade costs over a period of 5 years
 - Reduction in administrative workload led to the hiring of 20 new HR staff members in place of 40 members per month
 - Real-time sharing of month end profit & loss reports to nearly 80 managers at varied cost centers
 - Savings of up to US\$4.8 million in licensing and infrastructure hosting costs
 - Customization of monthly, quarterly and annual performance review cycle and project evaluations as per business division needs

Source: Oracle and RCD Espanyol [Link](#), LINX Cargo Care Group [Link](#)

Vendor profile -
Microsoft Dynamics
365 ERP

Microsoft Dynamics 365 ERP Overview

Key statistics

- Revenue: US\$46.4 billion (*Productivity & Business Processes including Dynamics 365*)
- HQ : Redmond, Washington, USA
- Geographical presence: Offices in ~170 countries
- Ownership: Public (MSFT)
- # of employees¹: 163,000
- Customer base: 75 million (*350,000+ monthly active users on Dynamics 365 for Finance and Operations*)

Market perception

- In 2020, Microsoft Dynamics 365 was recognized as a Visionary by Gartner in its Magic Quadrant for Cloud ERP for Product-Centric Enterprises
- Recognized in the Strong Performers Band by Forrester in 2019 and is the only vendor offering hardware, software, and internet-of-things (IoT) platforms to enable end-to-end customer service

Key partnerships

- Partnership with Hootsuite to integrate Microsoft Dynamics 365 applications for sales, marketing, and customer service functions
- Crowe was recognized as a Microsoft Dynamics Inner Circle Partner, representing the top 1 percent of all organizations in the Microsoft Business Applications group

Key industries served: Automotive, Education, Financial Services, Government, Health, Retail and consumer goods, Wholesale, Media, Communications, etc.

- Microsoft Dynamics 365 is deployed by ~10 government agencies

Key clients: HP, Lifestyles, Hitachi, Kotak Mahindra, Australian Government Department of Health, Grant Thornton, Virgin Atlantic, Parkland County, Invitalia, Pandora, State of Hawaii, etc.

Industry innovation & Proprietary Technology

- **Dynamics 365 Finance:** Automates financial operations, monitors real-time performance, improves financial controls, costs, and cash flow
- **Dynamics 365 Supply Chain Management:** Improved visibility and predictive insights to build a resilient supply chain
- **Dynamics 365 Human Resources:** Optimize compensation, leaves, training, and compliance
- **Dynamics 365 Commerce:** Store management and enhances customer experience

Eminence in the space

- Microsoft Dynamics 365 suite for finance and operations was ranked as a Leader in ERP Technology Value Matrix published by Nucleus Research in 2019
- Microsoft India organized Cloud for Digital Governance Tour in Ahmedabad to empower government officials to leverage cloud technology and artificial intelligence

Source: Company, Microsoft Dynamics 365, [Link](#); Dynamic 365 customer stories, [Link](#); Industry Recognition and Reports, Microsoft Dynamics 365, [Link](#); Magic Quadrant for Cloud ERP for Product-Centric Enterprises, Gartner, [Link](#); Manufacturers, Hootsuite announces new integration, MSDynamicsWorld, [Link](#); Ignite 2019, MSDynamicsWorld, [Link](#); News Center, Microsoft Dynamics 365, [Link](#); Crowe LLP News, [Link](#)

Microsoft Dynamics 365 ERP Capabilities: Finance

(1/3)

Finance: Enables real-time monitoring of financial performance, automates, and simplifies functions. The solution adapts locally to diverse workforces and changing laws by incorporating various languages across geographies

- Enables organizations to operate worldwide by supporting multiple currencies and allows users to quickly update accounts, tax codes, rates, and new fields, customized KPIs, and charts
- **Automates financial processes:** The solution automates and prioritizes financial tasks including:
 - Recurring bills automation, accurate calculation, and reporting of financial statements, thereby leading to reduced audit costs
 - Simplifies financial operations with tools such as vendor invoice automation, expense management, budget planning, and budget control
 - Configurable data management tools support integration of external data and automates approvals
 - It also ensures seamless integration with Office 365 tools such as Outlook, Skype, and excel, thus, leading to enhanced efficiency
 - Customize documents such as invoices and statements using Office 365 templates, leading to easy adoption of changing business requirements
- **Monitors real-time financial information:**
 - Monitor cash flow in real time, identify trends, and make data-driven decisions using an intelligent and customized cash flow-forecasting solution
 - Provides workspaces capturing real-time insights, analytics of the financial performance with details of each transaction, and reports with a detailed view on the business processes
- **Predicts future outcomes:** Consolidates and analyses historical data to create budget forecasts and proposals using Artificial Intelligence, predictive analytics, and machine learning
 - It also offers insights around future cashflows by predicting the probable payment of invoices by the customers using historical analysis, and provides strategies to organizations on receiving timely payment from the customers
- **Regulatory compliance:** Dynamics 365 Finance provides customized tools to support changing local and international laws, making it easier to generate reports during the month end
 - Management of frequently changing regulatory requirements with no-code configurable tax, e-invoicing, payment, and reporting formats; ensuring easy adjustment to rapidly changing global financial requirements using a flexible, rules-based chart of accounts and dimensions
 - Ensuring local and global compliance requirements across 37 countries and 42 languages
 - Global electronic reporting includes configurable e-invoicing which can be easily adapted according to the regulatory changes

Source: Finance Overview, Microsoft Dynamics 365, [Link](#); Finance home page, Microsoft Dynamics 365, [Link](#)

Microsoft Dynamics 365 ERP Capabilities: Finance

(2/3)

- **Financial reporting:** Allows users to create, maintain, deploy, and view financial statements with several features including flexibility in report design such as dimensions and format headers
 - It also ensure management of report creation and distribution by scheduling automatic generation of reports on a weekly, or monthly, or annual basis, then export reports to an excel, and allows sharing through email
 - Several interactive features such as change in currency, reporting date, viewing the report in summary or detailed view, and addition of dimension, and attribute filters further enhance customer experience
- **Budgeting:** Budget control framework with rolling forecasts which analyses and compares the budget to actuals, capture the deviations, and identifies trends. The solution also offers various planning and budgeting capabilities such as:
 - Fixed asset budgets: Calculates planned depreciation and other transaction that are related to fixed assets based on information about a fixed asset
 - Workforce budgets: Workforce budgeting includes detailed budget cost component planning for positions, compensation groups, etc.
 - Project budgets: Creates detailed project forecasts including details about planned hours, expenses, fees, and other items
 - Demand forecasting: Estimates future inventory demand and create demand forecasts based on historical transaction data
- **Accounts Payable:** Allow users to review and approve the invoices by using an invoice approval journal, vendor invoice page including invoice matching, vendor invoice policies, and workflows to automate the review process so that invoices that meet certain criteria are automatically approved, and the remaining invoices are flagged for review
- **Accounts Receivable:** Tracks customer invoices & payments received and allows users to create customer invoices based on sales orders and free text invoices not related to sales orders. It also records the payment received from multiple entities of the same organization centrally, avoiding double counting
- **Cash and Bank Management:** Reconciles bank statements, deposit and transfer bank funds, manage letters of guarantee, and prints bank data on standard reports for the customers
- **Expense Management:** Creates integrated workflow to store payment method information, import credit card transactions, tracks employee spend, and automates travel reimbursement expenses

Source: Finance Overview, Microsoft Dynamics 365, [Link](#); Finance home page, Microsoft Dynamics 365, [Link](#)

Microsoft Dynamics 365 ERP Capabilities: Finance

(3/3)

- **Fixed assets:** Microsoft Dynamics 365 Finance offers various fixed asset services including creation, addition, transfer, acquisition, disposal of fixed asset, reclassification, depreciation, and replacement costs
 - Fixed asset management workspace provides a summary and an analytics view of all the fixed assets entered in the system including its valuation, current net book value, acquisition value, disposal value, etc.
- **General ledger:** Manages the financial records, process closing transactions, allocates cost and income, forecast cash flow and currency requirements, revalue currency amounts, etc.
- **Project management:** Creates project contract, quotations, forecasts and budgets, assign resources, workers, controls cost, forecasts cash flow, analyses employee utilization rate, and review
- **Regulatory compliance:** Dynamics 365 Finance provides customized tools to support changing local and international laws, making it easier to generate reports during the month end

Source: Finance Overview, Microsoft Dynamics 365, [Link](#), Finance home page, Microsoft Dynamics 365, [Link](#)

Microsoft Dynamics 365 ERP Capabilities: Procurement

- **Identification of product or service:** Dynamic 365 Supply Chain Management solution allows user to set up product catalogs, thereby supporting the purchase department in supply of the products
 - Spending limits are used to constrain requisition spending and purchasing workflow adds an option of approval before placing the order
 - It also offers an option to share the request for quotation with the potential vendors
 - As an alternative to request for quotation, purchase enquiry can be shared with the vendors to help establish terms like prices, discounts, and delivery date for the order
- **Procurement:** Once the purchase orders are confirmed, these are represented as agreements with many of the field automatically populated with default values from the information stored about the vendor in the vendors page, leading to reduced time in filling up the details
- **Prices and Discount:** Prices and discounts can be negotiated and represented through purchase agreements. Further, rebate agreements can be created with vendors where the procurement of specific products may trigger a rebate from the vendor depending on the purchase amount or volume
- **Delivery options:** Ordered products can be split into delivery schedules according to the date of product delivery
 - In case of a direct delivery initiated from sales order, the packing slip is automatically generated at the time of recording the product receipt on purchase order
- **Supplementary items:** Users can also add some supplementary items such as free products related to the products ordered
- **Purchase order charges:** Charges can be assigned to the purchase orders automatically through selection of automatic charges or by adding the charges manually
- **Product receipt and invoicing:** Records vendor invoices, specifies accounting distributions to be carried out within the ledger, and categorizes invoices purchase orders as a liability in the vendor account within accounts payable, from where the vendor payment can be processed
- **Vendor performance:** Performance and review of purchasing is supported through procurement and account payable reports, which includes spend analysis and vendor performance analysis

Source: Procurement and sourcing overview, Microsoft Dynamics 365, [Link](#)

Microsoft Dynamics 365 ERP

Strength

- **Power BI integration:** Dynamics 365 uses the Azure platform offerings for reporting and analytics tools via Power BI
 - The Azure platform also provides machine learning, AI, robotic process automation, and cognitive services, as well as capabilities and data from IoT integration
 - It also embeds Power BI reports and offers users the ability to insert Power BI data analysis into applications
- Offers broad and comprehensive operational ERP capabilities across **90 countries with more than 45 languages**, making it a preferable solution for large enterprises
 - Dynamics 365 Finance was rated the highest in **geographical presence**, with a score of 4.6 out of 5 by Gartner in its Critical Capabilities for Cloud Core Financial Management Suites report in 2020

Weakness

- **Lack of skilled talent** to manage the ERP cloud offering compared to its competitors such as Oracle and SAP
 - Further, a demand-supply gap of around 20 percent exists for trained developers and integration consultants
- **Application functionality gaps** also exists compared to peers, in areas such as global payroll coverage, advanced scheduling, and HR case management
- As per a report by Gartner, customers also face difficulty in implementing the **frequent updates** in the platform and applications owing to inconsistent third-party support

Source: Magic Quadrant for Cloud ERP for Product-Centric Enterprises, Gartner, [Link](#); Critical Capabilities for Cloud Core Financial Management Suites for Midsized, Large and Global Enterprises, Gartner Report 2020, [Link](#)

Microsoft Dynamics 365 ERP | Key Risk Areas

Technology

- **Intense Competition** in the technology sector and platform-based ecosystems including vertically integrated software and high substitutes availability may pose some threat to the company
- **Lack of user friendly interface** : Dynamics 365 ERP system's interface is perceived as complex and difficult to navigate, leading to poor customer experience compared to its peers such as Oracle

Finance

- Dynamics 365 is **highly priced** with additional cost incurred to integrate the product with rest of the Microsoft suite, making it a less preferable product for the customers compared to its peers
- **Foreign exchange risks**: Microsoft's exposure to more than 200 countries could lead to a potential volatility risk of the US dollar against other foreign currencies such as Canadian dollar, Japanese Yen, British Pound, etc.

Implementation

- **Partner ecosystem**: Instances of inconsistent technical support from third-party channel partners reported by users could lead to customer shift towards competitor brands
- Microsoft **relies heavily** on its partners to implement and deliver last-mile capabilities of the application which may affect its supply chain amid the ongoing Covid-19 pandemic

Source: Oracle Wins Over Microsoft and SAP in the Cloud ERP BigTech Battle, Everest Group, [Link](#); Microsoft Dynamics 365 Reviews, Trust Radius, [Link](#); Microsoft, 10K report, [Link](#)

Microsoft Dynamics 365 ERP Case Studies (1/2)

Case study 1- Parkland County, Canada

- **Challenge:** As part of the ongoing digital transformation, Parkland County, Canada's municipality required modernized and automated systems to remove manual processes. Siloed departments and heavy reliance on different IT systems led to inefficiencies and the aim was to standardize on a single technology platform
- **Solution provided:** Dynamics 365 Customer Service, Dynamics 365 Finance, and Dynamics 365 Human Resources
- **Benefits/outcome:** Deploying Microsoft Dynamics 365 solutions resulted in:
 - Standardized and automated processes across departments
 - Automated financial operations by deploying Dynamics 365 Finance
 - Efficient management of workforce including seasonal addition of employees due to increased construction during summer, through deployment of Dynamics 365 Human Resources
 - 10 percent reduction in costs led by disposal of several systems
 - Speedy process completion and enhanced employee productivity
 - Transparent data with better analytics and reporting capabilities
 - Improved decision-making for people movement and organizational issues

Case study 2- Invitalia, Italy

- **Challenge:** Invitalia supervises economic development in Italy and was asked by the Italian Government to purchase, manage, and distribute vital medicines, medical devices, and other supplies from various international market amid Covid-19 crisis. The limited supply of essentials, decentralized orders by several hospitals led to procurement delays and posed various challenges. The agency required a new logistics platform to simplify the complex process of purchasing and distributing the PPE kits
- **Solution provided:** Dynamics 365 Supply Chain Management
- **Benefits/outcome:** Deploying Microsoft Dynamics 365 resulted in:
 - Built a centralized solution for quick identification of suppliers with available Personal Protective Equipment (PPE)
 - Streamlined distribution of PPE from shipping locations to meet critical demand of the hospitals around the country
 - Seamless coordination of transportation into the country and supplying PPE kits to more than 1,000 hospitals
 - Enhanced vendor collaboration as vendors can interact directly with requests for supplies
 - Direct setting up of delivery schedules to the agency office, leading to increased efficiency and expediting the procurement process

Source: Canadian municipality delivers digital transformation and increases citizen engagement with Dynamics 365, Microsoft Dynamics 365, [Link](#); Invitalia streamlines procurement and distribution of vital medical supplies with Dynamics 365 Supply Chain Management, Microsoft Dynamics 365, [Link](#);

Microsoft Dynamics 365 ERP Case Studies (2/2)

Case study 3- Canada Mortgage and Housing Corporation

- **Challenge:** Canada Mortgage and Housing Corporation is a government department that acts as Canada's national housing agency. The Corporation was facing challenges in technology investment and governance. As part of its digital transformation journey, it aimed to streamline several processes to serve all the Canadians with affordable housing
- **Solution provided:** Dynamics 365 Finance and Operations
- **Benefits/outcome:** By deploying Microsoft Dynamics 365, the corporation was able to:
 - Streamline key processes across the organization from finance to procurement and mortgage backed securities

Case study 4- Ras Al Khaimah Transport Authority (RAKTA), UAE

- **Challenge:** As part of the UAE public sector, RAKTA is dedicated to provide Ras Al Khaimah residents access to the best transport network. However, various departments of RAKTA from finance to customer service worked in silos with manual processes and struggled to deliver modern customer service. The aim was then to integrate and streamline disparate systems and automate workflows to drive operational efficiencies
- **Solution provided:** Microsoft Dynamics 365 ERP
- **Benefits/outcome:** Deploying workday solutions resulted in:
 - Streamlined process by enabling agents to register companies, issue and renew licenses for drivers and vehicles, and inspect via mobile and issue fines
 - Building new integrated License and Compliance management system, reducing the response to a customer service request from 6 minutes to 1.4 minutes

Source: CMHC embarks on a transformation journey to house better business solutions in the cloud, Microsoft Dynamics 365, [Link](#); RAK Transport Authority lifts its customer service to new heights via Microsoft Dynamics, Microsoft Dynamics 365, [Link](#)

Vendor profile - Tyler Munis ERP

Tyler Munis ERP Overview

Key statistics

- Revenue: US\$1.12 billion (FY19)
- HQ¹ : Tennyson Parkway, Texas, USA
- Geographical presence: Offices in 3 countries, 35 locations across US, Canada, Philippines
- Ownership¹: Public (TYL)
- # of employees (*September 2020*) : 5,511
- Customer base: 8,800+ (*using cloud-based solutions*)
- Transaction volume: NA

Market perception

- NA

Key partnerships

- Strategic partnership with Amazon Web Services (AWS) to accommodate growing adoption of cloud-hosted solutions in the public sector by leveraging AWS cloud (October 2019)
- Member of Microsoft Partner Network with Gold Competencies and also a Microsoft Independent Software Vendor managed partner

Key industries served: Education, Government, Public Sector, etc.

- Tyler has an experience of around **35 years** in offering ERP solutions to the public sector
- Its ERP financial solutions are used by more than **4,000 clients** across The US

Key clients: Hartford, Bristol Water Department, City of Victorville, Saint Louis County, Clermont County, Mobile Alabama, Tulsa Public Schools, Rockdale County Public Schools, Kentucky Department of Education

Industry innovation & Proprietary Technology

- **Financial Management:** Manages accounts payables and receivables, cash, capital assets
- **Procurement:** Manages public sector procurement process
- **Human Capital Management:** Manages employee and payroll data
- It also provides civic services solutions, manages revenue collections for governments, billing for municipal authorities, and offers specific ERP for school districts

Eminence in the space

- Inclusion of Tyler Technologies in S&P 500 list 2019 recognized it as one of the largest publicly traded corporations in the US, providing technology support to public sector
- Ranked as one of Forbes Best Employers for Diversity list in 2020 and 2019
- Recognized amongst America's Best Midsize Employers by Forbes in 2019 and 2018

Source: Munis, [Link](#); ERP solutions, [Link](#); Technology Partners, [Link](#); Munis for Schools, [Link](#); News Library, Tyler technologies, [Link](#); Tyler Technologies Makes the S&P 500..., Government Technology, [Link](#); Tyler Technologies Named to Forbes Best Employers..., Business Wire, [Link](#); Tyler Technologies Named to Forbes' 'America's...', [Link](#); Tyler Technologies Announces Strategic Collaboration..., Business Wire, [Link](#)

Tyler Munis ERP Capabilities: Finance (1/2)

- **Finance:** Offers fast access to information, simplified reporting, workflow processes, improved financial control, and enhanced compliance with local, state, and federal requirements, leading to higher accountability and transparency to local governments and school districts
- **Accounts Payable:** Manages and tracks vendor invoices and vouchers, prepares pre-check registers, automatically generates checks and maintains expenditure history of vendors
 - Invoice entry: Easy invoice entry, credits memos, directs disbursements, imports invoice data from vendors or third-party systems, reports sales tax, allows or restricts duplicate and blank invoice numbers, supports entry of new vendors with a sign-up facility by the vendors themselves under the Munis Self Service, and centralizes or decentralizes invoice entries to allow departments to process payments on invoices
 - Cheques: Allows payment to multiple vendors through a single cheque, offers several cheque printing options, files reconciliation of cheques, and processes electronic funds transfer (EFT) payments to vendors
 - Inquiries and reports: Includes inquiries or reports pertaining to invoices, cheques, purchase order details, recurring invoice records, general ledger year-to-date information, vendor fiscal year summary, state specific sales tax reporting
 - Purchasing cards (P-Cards): Allows tracking of P-card purchases on the vendor file, facilitates auditing of cards, thereby providing greater insight of employee spend through P-cards
 - Vendor information: Classifies vendors by user defined criteria including geographical code, type code and class code, supports vendor commodity links and multiple vendor addresses and allows vendors to register and maintain the vendor profile while accessing purchase orders, invoices, and cheques
- **Accounts Receivable:** Performs collection of miscellaneous cash and billed receivables
 - Record keeping: Records customers' payment details including cash, cheques, credit card; displays original bill in detail, prints duplicate receipts, schedules customer statements on demand, and allows search for bills by customer name, property location and code, bill number/type, etc.
 - Collections: Creates receipts for both bill payments and miscellaneous cash processing, supports cash/cheque reconciliations, exports daily collection information, and reports detailed receipt information and summary using daily cash journal
 - Payment processing: Accommodates partial payments and overpayments including pre-payments or pay by installment, adjusts payment effective date to determine future payment amount, processes multi-bill payments and provides workflow approval processes to regulate payment reversals and refund procedures

Source: Product Sheet: Munis Accounts Payable, Tyler technologies, [Link](#); Product Sheet: Munis Accounts Receivable, Tyler technologies, [Link](#)

Tyler Munis ERP Capabilities: Finance (2/2)

- **Capital Assets:** Manages accounting and reporting of all capital assets, with full integration of purchasing, accounts payable, general ledger, new purchases of assets, and depreciation
 - Tracking and Reporting: Records information pertaining to capital assets including description, class, quantity, serial number, parcel number, location, acquisition method, date, cost, and provides standard & customized reports with Microsoft SQL Server Reporting Services
 - Calculates depreciation using several methods
 - Offers integration with the barcode tracking system for automated updates
 - Allows integration with several applications including: Munis Purchase Orders and Accounts Payable applications to record purchases as assets by the purchasing department, General Ledger to update appropriate asset and depreciation accounts, and Asset management to allow connection to necessary enterprise assets
- **Cash Management:** Automates several processes in the Treasurer's Department including disbursement and cheque reconciliation, cash flow forecasting, offers bank reconciliation, records bank account transactions including pooled cash, investment, debt details and provides an option to integrate with accounting system transactions to analyze the difference between budgeted and actual cash flow
 - Cheque and Warrant reconciliation: Processes files to and from the bank, offers access to payables and payroll cheques, indicates clearance of cheques, and runs a cash account reconciliation report to analyze the cash position
 - Cash flow utilization: Creates single recurring cash flow records to eliminate redundant records such as payroll expenditures and automatically generates all cash flow entries by calendar date, tracks investment and debt service, allocates interest across one or more cash accounts, and provides customized lists based on investment and debt information
 - Bank Reconciliation: Creates multiple bank account numbers for each bank code; defines Munis General Ledger (GL) cash accounts corresponding to each bank account; automatically generates bank items reconciliation file of adjustments, deposits, accounts payable, and payroll; and imports outstanding journal entries into the reconciliation module without duplication or omission of entries

Source: Product Sheet: Munis Capital Assets, Tyler technologies, [Link](#); Product Sheet: Munis Cash Management, Tyler technologies, [Link](#)

Tyler Munis ERP Capabilities: Procurement (1/3)

- **Procurement:** Munis Procurement ERP solution streamlines the entire procurement life cycle with an integrated e-purchasing system for managing requests, reviews, contracts, and purchases from vendors which provides easy access and understanding of internal business rules, policies, and contracts
- **Bid management:** Manages the entire procurement solicitation process and consolidates all buyer activity into a single, centralized application that allows users to advertise bids online, and vendors to view and submit electronic proposals, leading to enhanced purchasing efficiency, reduced time, and effort
 - Creates contracts and enforces vendor pricing for future items purchased
 - Electronically seal bids through encrypted lock box feature
 - Provides customized bid events including vendor meetings and bid openings with details such as dates, times, locations, contacts, etc.
 - Tracks vendor bidding dates including opening date and expected award dates
 - Automatically transfers all bid awards to procurement transactions and previews these transactions prior to actual award
 - Creates online evaluations by assigning weighted scoring to vendor responses on several parameters, thereby supporting the request for proposal (RFP) process
 - Provides buyers with online reports & graphical analysis tools and consolidates multiple requests into a single bid to increase the purchasing power of the users
 - Audits vendor activities related to bid
- **Contract Management:** Munis Contract Management solution supports the entire lifecycle of a contract from initiation to expiration
 - It allows users to create and approve both annual and multi-year contracts for purchases, define milestones, and key dates of the contract
 - Tracks vendor performance information for a given contract, including past due deliveries, fill percentage, and returns
 - Tracks contract insurance and bonds, and generates notifications of expiration dates
 - Notifies changes to contract including date/time, user, account, revised amount, etc.
 - Allows decentralized on-the-job contract progress payment entry to initiate payments for contracted services performed
 - Provides an option for automatic conversion of the awarded bids into contracts
 - Fully integrated with general ledger, purchasing and accounts payable allowing users to track pending payments, open requisitions, purchase orders, and contract change orders
 - Allows re-opening of closed contracts or reactivation of rejected contracts or changed orders
 - Provides contract approvals using Munis Workflow by creating contract approval paths based on the type of contract
 - Displays when and by whom the contract was approved, rejected, closed, and opened using an Approval Trail listing
 - Offers the user to add comments around rejection, approval, or deferred contracts

Source: Product Sheet: Bid Management, Tyler technologies, [Link](#); Product Sheet: Munis Contract Management, Tyler technologies, [Link](#)

Tyler Munis ERP Capabilities: Procurement (2/3)

- **Procurement:** Munis eProcurement ERP solution manages the entire lifecycle of a purchase from procurement to final payment
 - Vendor self-service: Provides vendor web-based access to information and business records such as seeking or placing a proposal to bid, checking current and past purchase order information, and creating or updating a profile
 - It also allows vendor to submit invoices for payment via Munis Vendor Self Service, thereby expediting the accounts payable process of the user
 - eProcurement Punch-Out: Vendor punch-out allows the user to shop on a vendor's website using the Munis Requisition application, create virtual shopping cart which is instantly transferred to Munis requisition, post which a purchase order is created, and electronically submitted to the vendor
- **Inventory:** Munis Inventory stores and reports items, such as office supplies, public works inventory, including purchasing, receiving, requesting, shipping, delivery, transfers, and returns
 - Manages all inventory accounting automatically, including on-hand balances, month-to-date and year-to-date values
 - Allows users the flexibility to choose the inventory costing method
 - Coordinates minimum and maximum purchase quantities for each item, updates the quantity on hand, and notifies the user in case of low inventory to replenish the same
 - Allows addition of markups on a flat or percentage basis, passing any overhead cost onto the requesting department
 - Tracks the stocked items using the warehouse locations, transfers inventory from one warehouse to another, and restricts user access to specific warehouse locations
 - Defines and schedules delivery routes of requested items
 - Identifies an item as active or inactive using status lists
 - Tracks manufacturer, manufacturer number, vendors internal part number, and expiration dates to monitor and reduce waste of perishable items
 - Notifies variance in accounts payable and purchase order amount
- **Purchase orders:** Munis Purchase orders solutions provides workflow approvals
 - Allows purchase orders to be held for payment without receiving records and prohibits vendor invoicing until goods are received
 - Automatically forwards purchasing document and specifications to vendors
 - Confirms that the purchase is within budget, and update the available budget in real time
 - Uses workflow to define the business rules that guide the requisition and purchase order approval process
 - Creates multiple purchase orders from a single requisition, or one purchase order from multiple requisitions

Source: Product Sheet: Munis eProcurement, Tyler technologies, [Link](#); Product Sheet: Munis Inventory Tyler technologies, [Link](#); Product Sheet: Munis Purchase Orders, Tyler technologies, [Link](#)

Tyler Munis ERP Capabilities: Procurement (3/3)

- Integrates with Munis Contract Management to enforce contractual rules such as price, discount terms, etc.
 - Generates change orders for posted purchase orders, and follows workflow approval process
 - Manages vendor performance by analyzing purchases across commodity codes, vendor types, classes, geographic areas, etc.
 - Tracks past due deliveries, fill percentage, returns, and bid performance
- **Requisitions:** Allows individual departments to electronically enter requests, decentralizing the purchasing process while still maintaining control over procurement rules
 - Requisition Entry: Provides real-time information about the available budget
 - Allows unlimited description for each requisition line item
 - Provides duplication of previous requisitions for commonly purchased items
 - Allows addition of user-defined attributes to create customized attribute tracking and workflow approvals
 - Stores requisition notes from standard notes such as message printed for the vendor on the purchase order
 - Allows multiple purchase orders from single requisitions and single purchase from multiple requisitions
 - Generates workflow business rules for requisitions based on general ledger account segments, over-budget conditions, commodity codes, department codes, buyer-based identification, etc.
 - **Accounts payable and Capital Assets:** Munis procurement solution also offers accounts payables and capital asset capabilities similar to Munis Finance ERP solution

Source: Product Sheet: Munis Purchase Orders, Tyler technologies, [Link](#); Product Sheet: Munis Requisitions, Tyler technologies, [Link](#); Product Sheet: Munis Accounts Payable, Tyler technologies, [Link](#); Product Sheet: Munis Capital Assets, Tyler technologies, [Link](#)

Tyler Munis ERP

Strength

- Tyler Munis has an **established reputation** in the government and public sector with an extensive experience of more than 35 years, making it a preferred provider among the government customers
- The company also stands to benefit from a **fragmented market** for local and regional government, public agencies, courts, police departments, school districts, etc.
- Tyler has a **robust balance sheet, high liquidity**, and low debt obligations providing it the flexibility to pursue growth opportunities through acquisitions
 - As of 30 September 2020, Tyler recorded cash and cash equivalents worth US\$518.7 million compared to US\$232.7 million during FY19
 - Further, the company spent around US\$200 million on acquisitions, the highest amount incurred on deals by Tyler since 2015 to complement its existing offerings enter into new markets in public sector and expand the customer base

Weakness

- **Limited geographical presence:** Tyler Munis derives nearly all its revenue from the US government spending, leading to high exposure of impact on revenue owing to political and regulatory changes in the US
- Lack of skilled **professionals** to train the users and help understand the complete features offered by Tyler Munis
- Users have also cited difficulties in generating and running of reports due to multiple steps and processes

Source: Gartner, Trustradius, Tyler's Modernizing Its Market, Morningstar, [Link](#)

Tyler Munis ERP | Key Risk Areas

Technology

- **Increased competition** from well-established players such as Microsoft, Oracle, SAP, Workday, etc. leads to pricing pressures and difficulty in gaining market share captured by such players
- **Security breach incident:** Tyler Technologies is currently addressing a security incident investigation incurred in September 2020
 - The incident involved unauthorized access to internal phone and IT systems by a third-party
 - Such an incident breach may potentially harm the competitive position of the company

Finance

- **High R&D expenditure:** R&D expenditure growth of the company is exceeding the revenue growth, leading to reduced operating margin
 - During Q1FY20, the R&D expenses grew by 18.1 percent Y-o-Y compared to revenue growth of 11.9 percent, contracting the operating margin by 24.1 percent
 - Given the risks arising from Covid-19 crisis, there may be further decline in profits
- **Local Government risk:** As Tyler Munis offers ERP solutions to the local government and public agencies, the company relies on the general health of local government budgets funded by tax receipts
 - Lower government budgets and stalled economic growth amid the ongoing pandemic may lead to reduced revenue, thus, posing potential risk for Tyler

Implementation

- **Delays in government procurement processes** has led to further deferral of contracts implementation and lengthening of sales cycles
- Covid-19 has also led to **delay in implementations of ERP solutions** primarily caused due to travel restrictions, closed offices, and uncertainty around public sector budgets

Tyler Munis ERP Case Studies (1/2)

Case study 1- Baton Rouge, US

- **Challenge:** Baton Rouge, capital of Louisiana (US) deployed several disparate systems for more than 25 years with limited software integration, data extraction, and connectivity capabilities. The city wanted to replace and consolidate all the systems under one streamlined solution for the government
- **Solution provided:** Tyler Munis ERP
- **Benefits/outcome:** Deploying Munis ERP resulted in:
 - Streamlined workflows across departments, providing real-time status check of documents
 - Vendor self-service functionality, which allows vendors to update the profile information and view past transactions without contacting the city
 - Reduced time for payment to vendors
 - Ability to easily integrate with other Tyler solutions used by the city
 - Increased efficiency, better workflows, data transparency, and increased functionality for day-to day ERP tasks

Case study 2- Cranberry Township, US

- **Challenge:** The town deployed three different and outdated municipal systems which did not integrate with each other, leading to data silos, inefficient communication, and manual processes across departments that stalled progress towards modernization. Hence, it identified the need of re-engineering internal technologies by installing new systems which could integrate and reduce the paper work
- **Solution provided:** Tyler Munis ERP
- **Benefits/outcome:** By deploying Munis ERP, the city was able to:
 - Provide centralized data, streamlined hiring and personnel processes; eliminated repetitive manual data entry; and improved services for the citizens
 - Centralize ERP system, resulting in reduced licensing, technical support, and maintenance costs
 - Increase sharing of data between departments, leading to enhanced communication and efficiency

Source: Baton Rouge, Louisiana, Goes Live with Tyler Technologies' Munis and ExecuTime Solutions, Tyler Technologies, [Link](#); Case Study: Munis ERP, Tyler Technologies, [Link](#)

Tyler Munis ERP Case Studies (2/2)

Case study 3- Pittsburgh Public Schools, US

- **Challenge:** The school deployed a 15-year old ERP solution which did not offer the appropriate level of vendor support to manage its financial and HR data. Further, it did not integrate well with other third-party systems, leading to duplication of data and unnecessary manual processes. Hence, the school required an integrated ERP solution to serve all school locations, and provide greater data transparency
- **Solution provided:** Tyler Munis ERP
- **Benefits/outcome:** By deploying Munis ERP for finance, procurement, human resource function, the school was able to:
 - Automate workflows between departments, manage financials, and employee data
 - Seamless integration with third-party system
 - Greater transparency of information provided to the staff
 - Reduce manual processes and eliminate duplication of data and information
 - Increase sharing of data between departments, leading to enhanced communication and efficiency

Case study 4- York County, US

- **Challenge:** York County wanted to streamline its financial and human capital management processes, and improve efficiency across departments by implementing an easy-to-use ERP solution with modernized workflow, flexible reporting, and self-service functionality
- **Solution provided:** Tyler Munis ERP
- **Benefits/outcome:** By deploying Munis ERP, the city was able to:
 - Streamline finance and human resource business functions through automation, integration, and improved workflows
 - Reduce manual and paper-based processes
 - Improve efficiency and reporting capabilities

Source: Second-Largest School District in Pennsylvania Selects Tyler Technologies' Enterprise Resource Planning Solution, Tyler Technologies, [Link](#); Tyler Technologies to Provide Enterprise Resource Planning Solutions to York County, Pennsylvania, Tyler Technologies, [Link](#)

Vendor profile - Sage Intacct

Sage Intacct Overview

Key statistics

- Revenue (FY19): US\$652 million (*Sage Business Cloud including Sage Intacct*)
- HQ : San Jose, California, USA
- Geographical presence: Offices in 5 countries
- Ownership: Public (SGE)
- # of employees: 13,000+ (*800+ Sage Intacct*)
- Customer base: 4,800+ (*26+ in Australia*)
- Transaction volume: NA

Market perception

- Received the highest score in Sage Intacct Core Financials solutions for Lower Midsize Enterprises Use Case by Gartner in 2020
- Recognized as Visionary in the 2020 Gartner Magic Quadrant for Cloud Core financial management suites for midsize, large, and global enterprises
- Named as a Leader by IDC Marketscape Worldwide SaaS and cloud enabled PSA ERP applications

Key partnerships

- Strategic partnership with Expensetracker, Australia-based software providers with an aim to offer cloud expense and invoice management software on the Sage Intacct Marketplace (November 2020)
- Integrated with EBizCharge to automate and streamline payments processing for users (November 2020)
- Partnership with Tesorio to forecast and accelerate B2B cash collections, reduce outstanding payments, and eliminate manual processes (October 2020)

Key industries served: Financial services, Hospitality, Healthcare, Non-profit, Professional services, Accounting firms, etc.

- Sage Intacct has limited experience in offering solutions to the US public sector, however it has prominence in the non-government organizations sector

Key clients: American Marketing Association, American Society for Microbiology, Archdiocese of Detroit, Association of College Unions International, TMForum, NATCO, etc.

Industry innovation & Proprietary Technology

- In 2020, Sage Intacct launched a new cloud-based construction solution in the US which tracks costs, creates reports, and consolidates financials of multiple entities
- In 2020, Sage Intacct also launched its financial management solution in South Africa, post geographical expansion in Australia and the UK during the past year

Eminence in the space

- Sage Intacct's cloud financial management solution recognized by the 2019 G2 Crowd List of the Top 50 Software products for mid-sized companies
- Cloud financial management honored by TrustRadius in both Accounting and budgeting ERP categories
- Recognised by Fortune and Great Place to Work as one of the 2019 Best Workplaces
- Ranked as one of the Best Workplaces for Diversity by Fortune in 2019

Source: Partner News, Sage Intacct, [Link](#); Industries, Sage Intacct, [Link](#); Awards, Sage Intacct, [Link](#); Resource Center, Sage Intacct, [Link](#); Analyst research, Sage Intacct, [Link](#); Sage Intacct launches construction solution, Enterprise Times, [Link](#); Sage Intacct launches in South Africa, Enterprise Times, [Link](#); Sage Intacct Customers List, Infoclutch, [Link](#)

Sage Intacct Capabilities: Finance (1/3)

- **Finance:** Sage Intacct solution offering streamlines accounting and financial reporting through management of accounts payables, accounts receivables, fixed assets, inventory, cash, revenue recognition
- **General Ledger:** Consolidates transactions and information from multiple entities, currencies and geographies
 - Allows users to enter transactions once and report on them across multiple financial standards such as GAAP, IFRS, etc.
 - Defines workflows for consistency and accuracy with user-defined transaction steps and approvals
 - Offers insights using comprehensive reports on real-time transactions with no lag
 - Allows users to share insights flexibly and securely
 - Reviews general ledger transactions and detects outliers using artificial intelligence technology
- **Accounts Payable:** Creates automated, configurable processes to enhance internal controls, increased accountability, leading to reduced accounts payable processing time by at least 65 percent annually, as reported by the company
 - Tracks and views payments, approvals, and reports providing greater visibility by real-time reporting
 - Generates accounts payable liabilities, vendor aging reports, and conducts real-time checking on register reports
 - Sets defaults for terms, discounts, general ledger accounts, payment priority, and payment dates
 - Sets spending limits to maintain budget compliance with Sage Intacct Spend Management
 - Recognizes assets from accounts payable bills and expenses them over time
 - Defines workflows and approvals, leading to complete visibility into the entire accounts payable process
- **Accounts Receivable:** Streamlines accounts receivable management by automating invoicing and collections processes, thereby reducing the Day Sales Outstanding by 25 to 50 percent, as reported by the company
 - Analyzes accounts receivable data including collection activity on customer accounts, revenue over time, providing comprehensive view of the business
 - Provides real-time visibility with built-in and customized dashboards, reports, graphs analyzing invoices, deferred revenue, customer aging
 - Automatically posts order transactions to general ledger and accounts receivable ledger
 - Integrates with other business systems such as CRM solution to provide centralized view of quotes, sales orders, and invoices in order entry

Source: Accounts Payable, Sage Intacct, [Link](#); Accounts Receivable, Sage Intacct, [Link](#); General Ledger, Sage Intacct, [Link](#)

Sage Intacct Capabilities: Finance (2/3)

- **Fixed Assets:** Streamlines fixed asset management life cycle from acquisition to disposal
 - Streamlines depreciation and disposal: Automates recurring journal entries, calculates financial and tax depreciation using pre-defined calculation methods
 - Tracks and groups assets by project and provides view around the capitalized and in-progress assets
 - Manages central asset register which includes multi-currency, multi-location for depreciating and non-depreciating assets
 - Tracks and reports asset information including condition, warranty, dates serviced, and insurance status
 - Roll forward reporting: Reconciles net book value at the end of the period with beginning balances to provide an integrated view of the accumulated depreciation, additions, and disposals across the organization
 - Dimensional tagging: Discovers the distribution of assets costs by location, department, project, etc.
 - Asset linking: Tracks, processes, and generates reports on related assets
- **Inventory Management:** Creates automated, configurable processes to enhance internal controls, increased accountability, leading to reduced accounts payable processing time by at least 65 percent annually, as reported by the company
 - Inventory costing: Automates recalculation of costs captured from previous periods and uses multiple costing methods such as FIFO, LIFO to calculate the cost of inventory
 - Inventory tracking: Tracks real-time stock level, warehouse location, serial number, inventory adjustments and disposal
 - Stock level control: Tracks seasonal stock adjustments and economic order quantity to maintain the optimum level of inventory
 - Creates built-in reports with enhanced visibility across locations, products, inventory status, and also offers replenishment projections
- **Revenue Recognition:** Consolidates transactions and information from multiple entities, currencies and geographies
 - Automates day-to-day revenue recognition tasks and configures expense amortization to identify any gaps from the revenue recognition terms
 - Streamlines subscriptions and recurring-revenue recognition with real-time updates to accounting and billing for discounts, usage, renewals, upgrades, cancellations
 - Creates customized dashboards analyzing the entire revenue lifecycle including revenue recognition, billing, collection, profitability, etc.
 - Structures workflows to allow capture and edit contracts natively in Salesforce, eliminating the need of an additional integration software
 - Provides immediate visibility into the impact of changed guidelines on the financials of its customers through dual treatment and reporting

Source: Fixed Assets, Sage Intacct, [Link](#); Inventory Management, Sage Intacct, [Link](#); Revenue Recognition, Sage Intacct, [Link](#)

Sage Intacct Capabilities: Finance (3/3)

- **Cash Management:** Records and provides real-time visibility of payments and transactions across all locations, entities, savings accounts, credit cards, leading to greater cash control
 - Automates bank reconciliation by importing transactions from the user's financial institutions and automatically reconciling it with the savings accounts or credit card accounts
 - Matches electronic payment transactions to invoices, applies payments to accounts not tied to an invoice, and records POS payments not applicable to a single customer
 - Allows transfer of funds across accounts, locations, and entities according to user requirements
- **Prepaid expense amortization:** Sage Intacct also automates the amortization of expenses and offers the following capabilities:
 - Recognizes assets directly from accounts payable bills and automatically captures amortization information such as contract start date, end date, etc.
 - Creates flexible amortization rules for the assets and assigns unique general ledger accounts for specific purpose

Source: Cash Management, Sage Intacct, [Link](#); Prepaid expense amortization, Sage Intacct, [Link](#)

Sage Intacct Capabilities: Procurement

- **Purchasing:** Sage Intacct Purchasing solution creates predefined transaction and approval workflows to enhance procurement speed, accuracy, and efficiency
 - Automates workflows to streamline purchase requisitions, purchase orders, and approvals
 - Integrates with other Sage Intacct solutions allowing users to attach files, and record the data entry only once leading to easier recordkeeping and quick access to supporting documents
 - Provides real-time access to data including orders, delivery, competitive quotes, price breaks, budgets, vendor performance
 - Creates customized dashboards providing insights regarding the user's procurement performance
 - Offers best practices templates to create standardized workflows and ensure compliance with procurement requirements
- **Order Management:** Automates quote-to-cash processes, thereby enabling efficient handling of high order volumes and workflows
 - Automates order creation from quotes by eliminating data re-entry as the order once entered by the user automatically flows to fulfillment, billing, revenue accounting, etc.
 - Tracks order fulfillment, sales, inventory quantities and creates invoices, back orders, credit memos, debit memos, etc.
 - Computes discounts, shipping, handle, and other charges and applies sales tax according to the jurisdiction
 - Integrates seamlessly with other systems, allowing users to share pricing data, order status, while generating the orders and invoices simultaneously

Source: Purchasing, Sage Intacct, [Link](#); Order management, Sage Intacct, [Link](#)

Sage Intacct

Strength

- **Focus on lower mid-size organizations:** Sage Intacct has a strong competitive positioning as a provider of financial management solution in the mid-sized enterprise market
 - It has also received the highest product score by Gartner for Core Financials for the Lower Midsize Enterprises in 2020
- The **multi-entity architecture capability** of Sage Intacct manages financials for multiple locations, multiple entities, and multiple currencies
 - It also automates the consolidation of financial information across organizations located at multiple locations, facilitates inter-entity transactions, currency conversions, local tax reporting, making it one of the preferred providers of financial software
- As per a Gartner report, Sage Intacct ranked the highest in **General Ledger capabilities**, purchasing and accounts payable
 - Ranked 4.8 out of 5 in General ledger coding structure and processes, 4.6 out 5 in complex general ledger capabilities, and 4.7 out of 5 in purchasing and accounts payable
- **Ease of usability**, configuration, deployment, and integration with other cloud services
 - Received one of the highest scores of 4.5 out of 5 for configuration, deployment, and integration of solution and a score of 5 for ease of usability

Weakness

- **Lack of localization and languages** compared to its competitors such as Microsoft Dynamics 365 makes it less preferable amongst large-sized enterprises
- Despite Sage Intacct's recent expansion to UK, Australia, and South Africa, the company has **limited geographical presence** compared to its peers
 - Ranked one of the lowest with a score of 2 out of 5 in a Gartner report for its geographical coverage
- **Few automation features** compared to some of its peers, including the ability to suspend accounts based on rules, no-code workflow tool, and analysis of transactions to provide upselling or cross-selling recommendations
- As per a report by Gartner, Sage Intacct ranked the lowest amongst its peers with a score of 3.4 out of 5 in **fixed asset accounting capabilities** such as recording transactions pertaining to acquisition and disposal of assets, depreciation, management of physical location of assets, etc.

Source: Critical Capabilities for Cloud Core Financial Management Suites for Midsize, Large and Global Enterprises, Gartner, [Link](#)

Sage Intacct | Key Risk Areas

Technology

- Sage Intacct has expanded into three additional countries apart from the US during the past year which could lead to **potential external and internal risks** such as regulatory risk, high competition with already established players, high costs, operational risk, partner risk, etc.
- **High competition** from well-established players such as Microsoft, Oracle, SAP, Workday, etc. might lead to difficulty in gaining market share in the overall ERP space

Finance

- **Reduced operating profit:** The company registered a decline in its operating profit in Northern, Central, and Southern Europe regions
 - During FY20, the overall operating profit decline by 4 percent Y-o-Y driven by bad debts, amortization of acquisition-related intangibles and M&A related charges
- **The transition of the company's business model** from a license sales to a subscription revenue led to a decline in its other revenue segment by around 26 percent in FY20

Implementation

- Sage Intacct **relies heavily on third-party providers and key suppliers** to support the implementation and delivery of technology which may disrupt the supply chain amid the ongoing pandemic
- The company has outline its strategy of **transitioning to a Software-as-a-SaaS model** which might pose technological, operational risk and shall require efficient delivery innovative, cloud-based solutions

Source: Sage Intacct Annual Report FY20, [Link](#)

Sage Intacct Case Studies (1/2)

Case study 1- American Society for Microbiology, US

- **Challenge:** The organization wanted greater visibility into the business operations, projects, financials which was not supported by the Oracle on-premise ERP system. Further, most of the processes were carried out manually, leading to bottlenecks in extracting the financial data. It required an ERP system that streamlined its monthly reporting, revenue recognition, and detailed grant tracking by the federal government
- **Solution provided:** Sage Intacct
- **Benefits/outcome:** Deploying Sage Intacct resulted in:
 - Tracks and compare financials, grants, and corporate initiatives across departments, projects
 - Real-time access to financial insights such as inventory reports for book division, deferred revenues for membership, journals and meeting departments, and period reports for the grants department
 - Enhanced visibility and accountability across the organization with granular insights across diverse streams, projects, and departments
 - Reduced around three days from monthly allocations, depreciation and revenue recognition
 - Increased finance team productivity by 20 percent while reducing headcount

Case study 2- Sasser Family Companies, US

- **Challenge:** Sasser family companies is a family-held transportation asset services and management company. It deployed disparate accounting systems across its six subsidiary business units leading to increased paperwork, manual reconciliations, inefficiency, reduced business visibility increased risk and time owing to which the company identified the need to deploy a cloud-based financial management solution providing real-time insights about the financials across the business units
- **Solution provided:** Sage Intacct
- **Benefits/outcome:** By deploying Sage Intacct, the family-owned business was able to:
 - Increase revenue by 100 percent with 19 percent increase in the accounting staff over a period of four years
 - Reduce inter-company consolidations from weeks to minutes
 - Provides real-time view of financials across seven companies, on a standardized platform through its multi-entity management capabilities

Source: American Society for Microbiology, Sage Intacct, [Link](#); Sasser Family Companies, Sage Intacct, [Link](#)

Sage Intacct Case Studies (2/2)

Case study 3- Public Health Accreditation Board, US

- **Challenge:** Over the past 10 years, the organization has evolved including its financial model, reporting requirements, pricing structure such as five-year payment plans, and revenue recognition. Hence, it decided to move to a more robust financial management solution including a revenue management tool
- **Solution provided:** Sage Intacct
- **Benefits/outcome:** Deploying Sage Intacct resulted in:
 - Streamlines invoicing, accounts receivable, deferred revenue, and other revenue recognition workflows
 - Supports different payment plans including advance payments, eliminating manual intervention
 - Automatically identifies and tracks all grant-related transactions
 - Drives decision making through operational dashboard which displays key KPIs such as average cost per site visit or per customer training
 - Increased revenue growth by 40 percent, reduced headcount costs worth US\$100,000
 - Saved 100+ hours per month due to reduced manual accounting tasks
 - Increased finance team productivity by 20 percent while reducing headcount

Case study 4- Unite Here Health, US

- **Challenge:** Unite Here health, the national health benefits provider had scaled and expanded by 50 percent in five years leading to increased members, complex reporting requirements for each regional plan unit. Upon discontinuation of its current on-premises accounting system, the organization wanted to deploy a solution which could mitigate the growing complexity, minimize duplicate data entry, and offers real-time granular financial visibility across all its independent plan units, projects, and departments
- **Solution provided:** Sage Intacct cloud financial management software
- **Benefits/outcome:** By deploying Sage Intacct, the organization was able to:
 - Creates custom dashboards with drill down access to department's financials, allowing the organization to filter and analyze the business performance
 - Increased finance team productivity by 30 percent
 - Provided timely visibility into the performance of 40+ departments, plan, units, etc.
 - Reallocated of 40 percent time from redundant tasks into strategic planning and process improvement
 - Accelerated monthly close by 40 percent and annual budgeting cycle by 30 percent

Source: Public Health Accreditation Board, Sage Intacct, [Link](#); Unite Here Health, Sage Intacct, [Link](#)

Vendor profile - Infor CloudSuite Public Sector

Infor CloudSuite Public Sector Overview

Key statistics

- Revenue: US\$3.2 billion (FY19)
- HQ : New York
- Geographical presence: Offices in 170 countries
- Ownership: Owned by Koch Industries
- # of employees: 17,300
- Customer base: 68,000+
- Transaction volume: NA

Market perception

- Recognized as a "Leader" in 2019 MarketScape Report for Worldwide Supply Chain Planning
- Positioned at the top in the Visionaries Quadrant of the 2020 Gartner Magic Quadrant for Cloud ERP

Key partnerships

- Infor is in partnership with recognized leaders including HCL, Capgemini, Deloitte, TATA, and others
- Infor has partnered with Amazon Web Services (AWS), the market leader for cloud-based infrastructure as a service (IaaS) and platform as a service (PaaS) to deploy Infor CloudSuite

Key industries served: Energy and Natural Resources, Aerospace and Defense, Automotive, Banking and financial services, Transportation, Retail, Healthcare, Oil and Gas, Utilities, Industrial manufacturing, Distribution, Logistics, Fashion, Food and Beverage

Key clients: Allina Health, Bausch & Lomb, Ferrari, Heineken, Jaguar, Bank of America, IDC, Jockey, Puma, PwC, SAS and others

Industry innovation & Proprietary Technology

- Infor is aiming to grow in multiple sectors through the use of established core ERP suites enhanced with industry-specific capabilities
- Infor CloudSuite has proven capabilities for many vertical industries, including those with complex global manufacturing requirements

Eminence in the space

- Recognized as a Leader in the 2019 Gartner Magic Quadrant for EAM Software
- Panorama Consulting Solutions named Infor CloudSuite Distribution as a top 10 distribution ERP system

Source: Infor Website, [Link](#); Infor offices, [Link](#); Infor customers, [Link](#); Infor Clients, [Link 1](#), [Link 2](#); Revenue, [Link](#); Gartner Magic Quadrant, [Link](#); MarketScape report, [Link](#); Ownership, [Link](#); Infor CloudSuite, [Link](#).

Infor CloudSuite Public Sector Capabilities (1/3)

- **About CloudSuite Public Sector:** Infor CloudSuite Public Sector is a ready-to-run software solution set built specifically to meet the needs of public entities and address complex industry demands of government, education, transit, and utilities. It provides end-to-end functionality, specifically for the financial, operational, and regulatory needs of public agencies. Additionally, it provides benefits of cloud deployment; enabling industry-specific options for back office and front office functionality
- **Financial and revenue management:**
 - Streamline the management of financial systems and access reporting and analytics features for greater visibility and results
 - Invoice automation
 - Cash and treasury management
 - AP invoice automation
- **Procurement:** Have greater visibility of the entire service chain starting from sourcing to final delivery
- **Government, Risk and Compliance (GRC):** Has access to accurate, actionable, and auditable intelligence in real-time across all systems, processes and transactions. In addition to this, it has effective compliance management to avoid penalties
- **Community development and regulations:**
 - Planning and permitting
 - Licensing and case management
 - Citizen portal
- **Human capital management:**
 - Enhance employee recruiting mechanisms, retention, payroll, training, and succession planning as well permitting
 - Enable employee and manager self service
 - Enable better Human Resource management
- **Government lodging:** Increase space utilization, reduce costs, and manage all front- and back-end processes
- **Libraries and information centers:** Manage acquisitions, circulations, reporting functions, etc. from metrics reporting
- **Enterprise Asset Management:** Maximize lifecycle and efficiency of equipment, facilities, and vehicles for proactive cost management
- **Emergency Management Systems:** Enable fast and accurate sharing of information to address public safety incidents

Source: Infor CloudSuite Public Sector Brochure, [Link](#); Infor CloudSuite Public Sector, [Link](#);

Infor CloudSuite Financials Capabilities (2/3)

- Infor Cloudsuite financials and supply management is an integrated finance and supply management software solution that provides an integrated finance and supply management software solution for end-to-end fully integrated capabilities
- **Global General Ledger:**
 - Providing unlimited financial calendars
 - Accommodating different fiscal year ends and other reporting requirements
 - Redesigning ledgers and basis reporting for regional regulatory requirements, consolidations, or other reporting needs
 - Improvising dimension strings by allowing users to track and report on information tailored to the requirements of the organization, including non-financial data
- **Close management:**
 - Establishing a single close process across the entire organization
 - Built-in process flows for approval and prebuilt dashboards by period, process, and sub-process
 - Increasing efficiency and reducing errors, and enabling the ability to easily slice and dice data helps you better support both routine reporting and executive decision-making processes
 - Generating ability to access information any time from virtually anywhere
- **Receivables and billing:**
 - Providing real-time visibility into customer payments and approval processes
 - Monitoring and escalating disputes, helping the organization transition away from manual cash processing to a lower cost, higher control automated cash application
 - Managing customer maintenance, cash processing, cash application, dispute resolution, and credit management
- **Intercompany billing:**
 - Enabling role-based, multi-company billing solution
 - Providing an intuitive user experience to deliver analytics, list views, reports, common processes, action requests, and wizards
 - Embedding search capability and enhancing productivity by connecting users to the required data
- **Reconciliation management:**
 - Managing, performing, and streamlining account reconciliations by easily monitoring status, performance, and compliance metrics
 - Importing from the chart of accounts and automatic reconciliation based on user-defined rules or reconciliation using a simple and intuitive manual reconciliation option
 - Providing a central repository for supporting documentation related to reconciliations

Source: Infor CloudSuite Financials, [Link](#); Public Sector Cloudsuites, [Link](#)

Infor CloudSuite Financials Capabilities (3/3)

- **Cash management:**
 - Improving the efficiency of bank reconciliation processing
 - Monitoring cash positions
 - Creating cash forecasts, and validate actual transactions against forecasts
- **Lease accounting:**
 - Creating assets, making payments, sharing assets, reducing purchases, managing department costs through informed decisions about equipment purchasing and leasing
 - Providing real-time access to information, allowing efficient management of assets and payment processes, while reducing costs and the risk of fraud
- **Analytics:**
 - Providing cloud-based platform for networked business intelligence (BI)
 - Delivering pre-built data models, strategic KPIs, operational metrics, and a library of reports and analytic widgets, customized by industry
- **Payables and matching:**
 - Lower cost, higher control automated purchasing and providing comprehensive payables functionality, consisting of vendor maintenance, invoice processing, payment processing, and regulatory reporting and compliance
 - Streamlining labor intensive invoice process with real-time visibility into vendor invoices and approval processes
- **Project ledger:**
 - Tracking both internal and external projects, managing the accounting of projects on budget and on time
- **Asset accounting:**
 - Handling depreciation calculations and reporting requirement
 - Providing fast, and easy access to key asset information such as book value, location of assets, inventory costs, lease cost, and depreciation values
 - Configure asset definitions by department, cost center, or location while complying with current accounting standards and reporting requirements

Source: Infor CloudSuite Financials, [Link](#); Public Sector Cloudsuites, [Link](#)

Infor CloudSuite Public Sector

Strength

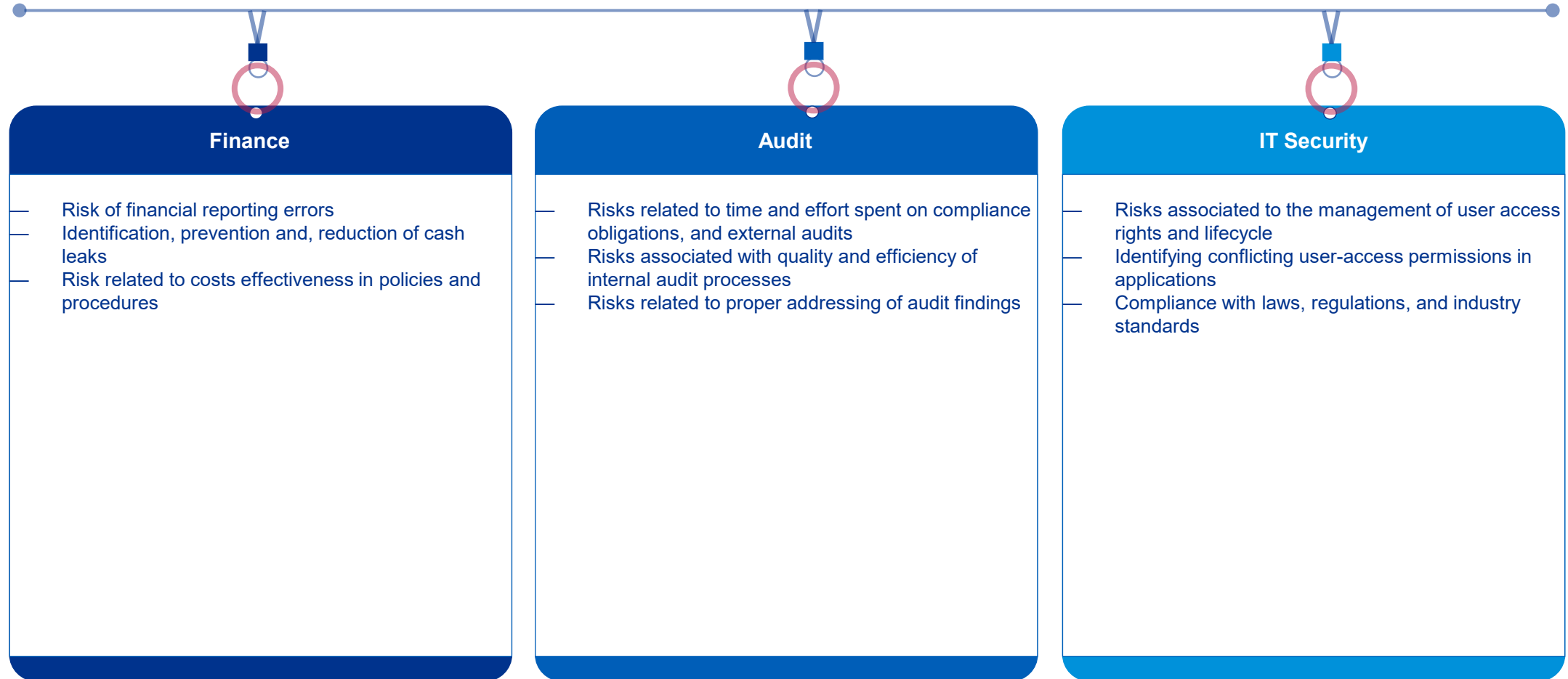
- Infor offers product-centric industries including manufacturing, wholesale distribution, and retail for medium and large global companies
- Infor has a strong manufacturing and operations segment where some of Infor's CloudSuites see mainstream adoption
- Infor's is investing significantly in the Infor OS platform and improvising BI and AI capabilities, hence encouraging users to transition to new products
- Infor is continuously shifting to cloud subscriptions as opposed to its historical heavy on-premises license and maintenance sales model
- Reference customers scored the vendor highly for the quality and timely technical support for CloudSuite
- Infor has expanded localizations to many Latin and South American countries
- Infor has proven capabilities for many vertical industries, and offers strong competencies in complex item and distribution management

Weakness

- As Infor expands into new sectors, Gartner advises prospective clients to check references
- Customers report a lack of consistent high-quality consulting and support resources across regions
- Infor was rated below average as compared to other vendors in Gartner Magic Quadrant for contract flexibility and pricing of cloud services
- Sales execution appears to be an area of caution for Infor

Source: Gartner Market Share Analysis, [Link](#); Gartner Magic Quadrant, [Link](#); Gartner, [Link](#)

Infor CloudSuite Public Sector: Key Risk Areas



Source: Infor, Risk Components, [Link](#); Infor Risk Components, [Link](#);

Infor CloudSuite Public Sector Case Studies (1/2)

Case study 1- The city of Springfield, Oregon

- **Challenge:** The city of Springfield required reduction in information silos, an integrated data repository, an enhanced reporting and analysis functionality, and wanted to update its existing systems with current technology and enable a web based interface to introduce solution-use across the Development and Public Works Department
- **Solution provided:** Infor® Public Sector
- **Benefits/outcome:** Deploying Infor solutions resulted in:
 - Standardizing and automating daily operations using Infor Public Sector's built-in, flexible workflows
 - Eliminating the need to maintain duplicate data and allowed automated transfers of employee information with a web-based integration to PeopleSoft
 - Increased collaboration and faster decision-making
 - Enabled ability to exchange information with third-party firms

Case study 2- Elsinore Valley Municipal Water District

- **Challenge:** EVMWD lacked the decision-making support it needed to run its business and required an optimum system to streamline its key processes like project cost accounting, grant management, etc.
- **Solution provided:** Infor CloudSuite
- **Benefits/outcome:** Deploying Infor CloudSuite resulted in:
 - Management of 42,000 water connections
 - Increased management of information repositories with over twice the amount of repositories managed than before
 - Reduction in fund management from 70 to 8 after consolidation with Infor software

Source: The City of Springfield, Oregon, [Link](#); EVMWD [Link](#)

Infor CloudSuite Public Sector Case Studies (2/2)

Case study 3- General Services Administration

- **Challenge:** The General Services Administration (GSA) had outdated payroll system, and required to meet the rapidly evolving consumer demands for responsive, access to services, and systems consolidation, along with optimum data and system security
- **Solution provided:** Infor offered NewPay for payroll, work schedule, and leave management modernization. This would enable standardization and faster processes
- **Benefits/outcome:** Deploying Infor and Intelligent Spend Management concept enabled:
 - Common Government-wide Accounting Classification (CGAC)
 - Locality pay for step/grade salaries
 - Support for interfaces with federal third-party administrators (TPAs)
 - Real-time payroll and labor analytics
 - Work schedule and leave management
 - Compliant time and attendance tracking
 - Shift or demand-driven optimized scheduling
 - Self-service and mobile features

Case study 4- Bexar County

- **Challenge:** Bexar wanted to gain a new level of efficiency in evaluating financial decisions and improving procurement processes and also required to make budgetary decisions effectively and efficiently. In addition, it wanted to strengthen its infrastructure and streamline its processes
- **Solution provided:** Infor™ Lawson Financial Management, Infor Lawson Supply Chain Management, Infor Lawson BI
- **Benefits/outcome:** Deploying Infor solutions resulted in:
 - Identifying all functional and technical requirements to automate and streamline processes
 - Helped in providing sound data to allow more effective decision-making on budgets
 - Bringing efficiencies in managing the finance and budget process
 - Optimizing end-to-end procurement process including sourcing vendors and awarding contracts as well as managing ongoing contracts
 - Adding substantial cost savings from automated and streamlined processes and enhancing data accuracy

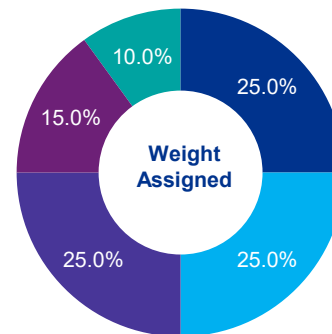
Source: GSA NewPay, [Link](#); Bexar County, [Link](#)

Business Application Analysis - Summary and Key Observations

Overall Index (Maximum score = 100)



Source: KPMG analysis; Sum of individual categories for a tool may not add up to the total due to rounding error



Business Application Analysis – Summary and Key Observations

Key Observations

- **Oracle Cloud** ERP is characterized by multiple features, such as an Accounting engine and Intelligent supplier portal, to streamline finance and procurement process. **Oracle Cloud** ERP has been recognized as a Leader in Product-Centric Enterprise by Gartner Magic Quadrant for Cloud Core Financial Management Suites in 2020 along with **Oracle NetSuite** ERP (Leader), Microsoft (Visionary) and **Infor CloudSuite** (Honorary).
- **Oracle NetSuite** ERP offers single platform for managing Finance and Procurement functions, with built-in intelligence systems for decision making. The majority of the NetSuite clients are mid-sized firms in various industries such as, Consulting, Information Technology, F&B, Financial Services, Health Care, Public Sector and Retail.
- **Oracle NetSuite** emerged as the leading vendor primarily owing to the financial and procurement capabilities offered by the solution including automation of accounts payable, accounts receivable, fixed assets, financial reporting capabilities, management of entire procure-to-pay process and supplier relationships.
- **SAP S/4 HANA** has strong procurement capabilities and was recognized as Leader in 2020 Gartner Magic Quadrant for Procure-to-Pay suites.
- **SAP S/4 HANA** ranks on the second position owing to its highest score in procurement capabilities and is also recognized as Leader in 2020 Gartner Magic Quadrant for procure-to-pay suites. However, it lags in the financial features offered.
- **Workday** has significant experience in government and public sector, with robust capabilities in Cloud Financial Planning and Procurement
- **Workday** also demonstrated an edge to other vendors in its experience in government and public sector and showcased a decent score in its financial capabilities, lagging behind only **Oracle NetSuite** and **Sage Intacct**.
- Further, although **Tyler Munis** trails behind the vendors primarily owing to its limited geographical presence, the company has an extensive experience in serving the US public sector.

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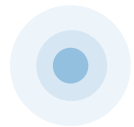
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Systems Integrator (SI) Analysis

- Experience with ERP solutions (implementation case studies)
- ERP industry knowledge



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Appendix

System Integrators Profile - Deloitte

Deloitte Experience With ERP Solutions (1/2)

Case study 1- Elizabeth Arden Inc.

Overview: Elizabeth Arden is one of the early clients of Oracle Fusion HCM and was part of Oracle's Early Adopter Program

- **Challenge:** Absence of integrated platform in Elizabeth Arden impacted the process of managing employee data from 14 different countries and using them for reporting and analytics purpose
- **Solution provided:** Deploying Oracle Fusion Cloud and HCM with the then diamond partner Deloitte
- **Benefits/outcome:** Deploying Oracle Fusion Cloud resulted in:
 - A centralized source of data for all employees across 14 nations
 - A global compensation management platform with an automated annual compensation process
 - It also made reporting and workforce analytics easier with the feature of employee self-service

Case study 2- Canadian Transportation Company

Overview: Deloitte is recognized as a key player in Workday consulting and services. It has 1,300+ Workday-certified consultants who helped in 350+ projects globally

- **Challenge:** A transportation company in Canada wanted to implement a system that provides flexibility and accuracy. The departments within the company worked in silos with no clear documentation of the transactions
- **Solution provided:** Deploying Workday Adaptive Planning ERP in collaboration with Deloitte Canada as a system integrator
- **Benefits/outcome:** Deploying Workday ERP with the help of Deloitte resulted in:
 - Centralized system that provided transparency in the transactions
 - The budgeting timeline was reduced from five months to one month
 - Detailed insights from analyzed data, resulting in better identification of gaps

Case study 3- American Airlines

Overview: Deloitte and SAP have been offering ERP implementation services for more than a decade. In 2016, Deloitte won SAP Pinnacle Award, recognized as SAP S/4HANA Adoption Partner of the Year. Globally they have 13,000+ practitioners dedicated to SAP solutions and helped 3,000+ clients in SAP implement

- **Challenge:** American Airlines business processes were inconsistent and had multiple legacy systems which impacted the efficiency
- **Solution provided:** Deploying SAP HANA Enterprise Cloud in collaboration with Deloitte
- **Benefits/outcome:** Deploying SAP ERP along with other modules resulted in:
 - Increase in consistency and accuracy of data with payroll errors dropping to zero
 - Reduction in job application time from 45 minutes to 10 minutes including digital onboarding process
 - Ensured better compliance with applicable standards and data privacy requirements

Source: Deloitte, Oracle Cloud ERP, [Link](#); Deloitte, Oracle, [Link](#); Deloitte, Workday Adaptive Planning, [Link](#); Deloitte, Workday, [Link](#); Deloitte, SAP, [Link](#); Deloitte, SAP, [Link](#);

Deloitte Experience With ERP Solutions (2/2)

Case study 4- Koch Industries

Overview: Deloitte has been named Infor's Global System Integrator of the Year in 2018, 2019 and 2020. It offers process transformation across industries/sectors, including Healthcare, Manufacturing, HR, Financial Services, and Public Sector

- **Challenge:** Koch Industries had 13 different businesses supported by discrete HR applications, with no integrated and centralized solution
- **Solution provided:** Deloitte helped Koch Industries in deploying the Infor CloudSuite
- **Benefits/outcome:** As a result, Koch shifted to a single platform myHR and leveraged the following benefits :
 - Reduced cyber-security risks and increased efficiency in adopting regulatory changes
 - Mergers and acquisitions became more efficient due to ease in integration of new employees into the platform
 - Redundant HR processes were scraped, which provided higher visibility into the issues that required attention

Case study 5- Beggars Group

Overview: Deloitte has a network of global professionals with NetSuite implementation experience in 30+ countries

- **Challenge:** Beggars' legacy systems led to backlogs and manual processes which increased the response time to the changing dynamics of music industry
- **Solution provided:** Deploying Oracle NetSuite ERP with the help of Deloitte UK
- **Benefits/outcome:** Deploying NetSuite ERP in its back-office functions resulted in:
 - An enterprise architecture that met the market standards
 - The agility of cloud ERP resulted in a stable and sustainable platform, providing solutions for all business requirements
 - Data migration from legacy systems to the new platform was also carried out efficiently, thus covering manufacturing, procurement and worldwide physical and digital sales

Case study 6- Sysmex Europe

Overview: Deloitte worked with Sysmex to enhance its Europe's customer contact center using MS Dynamics 365

- **Challenge:** Sysmex Europe had legacy systems that incurred high maintenance costs, sub-par performance, and scattered regional / corporate sales & marketing management
- **Solution provided:** Deloitte Digital acted as system integrator to deploy a system based on Microsoft Dynamics 365
- **Benefits/outcome:** Deloitte and Sysmex collaborated across countries to launch new systems internationally which led to:
 - A synchronized platform to give a 360 degree view of sales, customers, opportunities, and processes
 - Deloitte also conducted several trainings to equip the employees with the knowledge of MS Dynamics 365
 - The new portal simplified and sped up collaboration with Sysmex clients

Source: Deloitte, Infor, [Link](#); Deloitte, Infor, [Link](#); Deloitte, NetSuite, [Link](#); Deloitte, NetSuite, [Link](#); Deloitte Digital, Microsoft Dynamics 365, [Link](#);

Deloitte ERP Industry Knowledge (1/2)

Eminence in Space

- Deloitte provides dedicated practices for implementing cloud offerings from vendors such as Netsuite, Oracle, Salesforce, SAP, Workday, etc. The Company offers support in operating model, business process, technology design, and implementation of cloud ERP solutions
- The company also publishes insights and conduct events particularly pertaining to various ERP vendors detailed earlier:
 - Industry 4.0 whitepaper, “Is your ERP system ready for the digital era?”
 - Whitepaper about key areas to address during ERP implementation in public sector in “Postmodern era for public sector ERP”
 - Thought Leadership on “Top 10 change management challenges for Enterprise Resource Planning implementations”
 - Event to share insights on cloud ERP planning, “Controller’s guide to the galaxy: Planning for ERP cloud implementation”
- Industries served: Aviation, Energy, Education, Consumer Products, Healthcare, Manufacturing, Financial services, Logistics, Transportation, Retail and the Public Sector

Market perception

- Deloitte is also recognized in several market reports such as Gartner, Forrester, Everest, IDC, etc.
 - Forrester named Deloitte as a global leader in SAP Services based on strategy and offering
 - Forrester named Deloitte as a leader in Oracle services based on strategy and offering
 - Gartner recognized Deloitte as largest Workday services provider based on headcount
 - Gartner named Deloitte a Leader in the 2019 Magic Quadrant for SAP S/4HANA® Application Services, Worldwide
 - Gartner positioned Deloitte as a Leader in 2019 Oracle Cloud Application services, Worldwide
 - In 2017, IDC named Deloitte a global leader in Cloud ERP Implementation Services

Source: Deloitte, Cloud ERP Integration, [Link](#); Deloitte, Industry 4.0, [Link](#); Deloitte, ERP journey, [Link](#); Deloitte, ERP event, [Link](#); Deloitte, SuperLedger, [Link](#); Deloitte, IDC Market Analysis 2017, [Link](#); Deloitte, Gartner SAP Magic Quadrant 2019, [Link](#); Deloitte, Gartner Oracle Magic Quadrant 2019, [Link](#); Deloitte, Welcome to the postmodern era for public sector ERP; [Link](#);

Deloitte ERP Industry Knowledge (2/2)

Acquisitions and Partnerships to enhance ERP capabilities

- Deloitte has partnerships with key ERP consulting companies, vendors, and global system integrators such as SAP, Oracle, Workday, Microsoft, Infor and Sage. Deloitte collaborates with its partners to provide services/solutions for ERP implementation, cloud migration, and digital transformation
- Deloitte SuperLedger and Oracle Cloud help organizations to extract sub-ledger detail from multiple ERP systems during events, such as M&A transaction, divestiture, and expansion; standardize data and move it into a single “super ledger“
- Deloitte’s Emerging ERP solution with Software-as-a-Service (SaaS) option provides transparency in the ecosystem and drives functional excellence in HR, finance, and other key operational units
- Through merger and acquisition, Deloitte is expanding their capabilities in ERP
 - In 2020, Deloitte acquired Keytree, a UK based consultancy, to expand their support for SAP implementations. Keytree focuses on four main domains: SAP S/4HANA, SAP Customer Experience, SAP SuccessFactors and SAP Cloud Platform
 - In 2020, Deloitte acquired Ekulus, Oracle’s cloud partner in Australia & New Zealand, to strengthen Oracle Cloud implementation services

Public Sector knowledge

- Deloitte has helped many federal departments in ERP implementation and some of its key contracts include:
 - Deloitte helped City Government of Buenos Aires, Gobierno de la Ciudad Autónoma de Buenos Aires (GCBA) to streamline administrative processes, perform data management, and incorporate transparent budgeting through implementation of SAP ERP functions
 - The Company implemented SAP ERP in Snohomish County Public Utility District (Snohomish PUD) to improve the efficiency of HR process and reduce staffing related challenges

Source: Deloitte, Cloud ERP Integration, [Link](#); Deloitte, Industry 4.0, [Link](#); Deloitte, ERP journey, [Link](#); Deloitte, ERP event, [Link](#); Deloitte, SuperLedger, [Link](#); Deloitte, IDC Market Analysis 2017, [Link](#); Deloitte, City Government of Buenos Aires, [Link](#); Deloitte, Snohomish PUD; [Link](#); Deloitte, Emerging ERP Solutions, [Link](#); Deloitte, KeyTree, [Link](#); Deloitte, Ekulus, [Link](#)

System Integrators Profile - Accenture

Accenture Experience With ERP Solutions (1/2)

Case study 1- Nickel

Overview: Accenture holds Platinum membership of Oracle Partner Network

- **Challenge:** Nickel, a subsidiary of BNP Paribas identified the need to modernize and simplify its IT systems, and transform its finance functions as part of the OXYGENE project in 2019
- **Solution provided:** Oracle Cloud ERP
- **Benefits/outcome:** Accenture led the implementation of Oracle Cloud ERP which led to:
 - Establishment of integrated virtual system for accounting transaction processing
 - Centralized accounting processes into a single system, providing broad functional coverage
 - An increase in the number of standardized customer accounts
 - Seamless integration with Nickel's core banking and payroll applications

Case study 2- TenneT

Overview: Accenture is recognized as a Leader in the IDC MarketScape for SAP Implementation

- **Challenge:** TenneT, an electricity transmission operator wanted to harmonize the working between Dutch and German business units by streamlining various business processes
- **Solution provided:** SAP S/4 HANA
- **Benefits/outcome:** Accenture led the implementation of SAP S/4 HANA which resulted in:
 - Integration of business activities including finance, HR, warehousing & logistics, procurement, maintenance, and asset management, leading to increased collaboration
 - Enhanced visibility in processes carried out in the Netherlands and Germany

Source: Accenture Collaborates With Oracle, AIThority, [Link](#); Electricity operator TenneT taps Accenture for SAP implementation, Consultancy.eu, [Link](#); Accenture Positioned as a Leader in Workday Services Market by Everest Group, Newsroom, [Link](#)

Accenture Experience With ERP Solutions (2/2)

Case study 3- Avis Budget Group

Overview: Accenture is recognized as a Leader in the Workday Services Market by Everest Group

- **Challenge:** Avis Budget Group deployed 35 disparate HR systems across eight brands in more than 27 countries. As part of its HR transformation strategy, the group decided to deploy Workday solution offering a clear and consolidated view of its 30,000 workforce and a streamlined HR system
- **Solution provided:** Workday HR solution
- **Benefits/outcome:** Accenture led the implementation of Workday solution which resulted in:
 - Improved access to HR information to managers, providing performance and compensation insights
 - Platform offering self-service and execution of employee query / needs such as providing feedback on performance, creating goals, and updating personal details

Case study 4- Valmet

Overview: Accenture is recognized amongst the Marquee Sponsor under Inforum 2020 Sponsors by Infor

- **Challenge:** As part of its digital transformation and to drive operational excellence across the firm, Valmet decided to replace its current Baan ERP solution with Infor ERP suite
- **Solution provided:** Infor LN, Infor ION, Infor Mingle, Infor d/EPM, Infor Warehouse Mobility, and Infor Field Service
- **Benefits/outcome:** Accenture implemented the Infor ERP solution at Valmet, driving the following benefits:
 - Simplification of IT platform leading to improved process efficiency, data reporting, and quality
 - Valmet also anticipates potential efficiency savings of ~€30 million annually

Source: Avis Budget Group builds future workforce, Accenture, [Link](#); Accenture Positioned as a Leader in Workday Services Market by Everest Group, Newsroom, [Link](#); Infor and Accenture Improves Operational Excellence for Valmet, Benzinga, [Link](#); Inforum 2020 Sponsors, Infor, [Link](#)

Accenture ERP Industry Knowledge (1/2)

Eminence in Space

- Accenture has an established market position in the ERP implementation space and is recognized by various partners
 - It is the first company to achieve SAP-certified integration with the SAP Model Company service, for accelerating the custom deployment of SAP S/4HANA by around 30 percent
 - Accenture received 11 Oracle Partner awards including 2018 Specialized Partner of the Year in ERP Cloud for its commitment and success in delivering innovative solutions to Oracle customers
- The company also publishes insights related to various ERP vendors detailed earlier:
 - Research report on best practices for successful finance transformation with SAP S/4HANA
 - Accenture Technology Vision for Oracle 2020 is an annual forecast of technology innovation

Industries served: US Federal Government, Consumer Goods, Education, Public Sector, Energy, Health, Automotive, Chemicals, Life Sciences, Transportation, Insurance, Capital Markets, Retail, Utilities, Energy, other Government based sectors, etc.

Market perception

- Accenture is also recognized in several market reports such as Gartner, Forrester, Everest, IDC
 - Recognized as a Leader in the 2020 **Gartner** Magic Quadrant for SAP S/4HANA Application Services, Worldwide
 - Positioned as a Leader in the 2018 Gartner Magic Quadrant for Oracle Application Services, Worldwide
 - Named as a Leader in the 2020 **IDC** MarketScape analysis of Asia Pacific SAP solution implementation services vendors
 - Positioned as Leader in The **Forrester** New Wave: Workday Implementation Partners, Q3 2019 report
 - Recognized as a Leader by the **Everest Group** PEAK matrix for Cloud Services and Cloud ERP 2020 and the only provider to receive perfect scores for vision and strategy, scope of services offered, innovation & investments, and delivery footprint

Source: 2020 ERP Trends, Accenture, [Link](#); Insights, Accenture, [Link](#); Accenture Technology Vision for Oracle 2020, Oracle, [Link](#); Newsroom, Accenture, [Link](#); Accenture is the first partner..., BusinessWire, [Link](#); Accenture Named a Leader..., Accenture, [Link](#);

Accenture ERP Industry Knowledge (2/2)

Acquisitions and Partnerships to enhance ERP capabilities

- Accenture is strengthening its ERP industry knowledge and capabilities through acquisitions and partnerships with key vendors such as SAP, Oracle, and Workday
 - In 2020, Accenture partnered with SAP to build advanced capabilities for SAP Recipe Development application, which is built on SAP S/4 HANA to optimize supply chain of process-oriented organizations across consumer goods, chemicals, and life sciences industries
 - Accenture also signed an agreement in 2020 to acquire the Workday, Salesforce and U.S. MuleSoft practices to expand its service offerings to public sector seeking to transform finance, HR core software systems
 - In 2018, Accenture acquired California-based Oracle ERP Cloud services provider, DAZ Systems, which is a three-time Oracle cloud services partner of the year and offers ERP, EPM, and HCM application expertise
 - It also acquired Certus Solutions in 2018, with an aim to help clients with their cloud transformations and intelligent solution
 - In 2018, Accenture acquired PrimeQ, Oracle's specialized partner of the year for ERP cloud, making Accenture the largest Oracle Cloud Systems Integrator in Australia and New Zealand

Public Sector knowledge

- Accenture Federal Services is a subsidiary of Accenture, offering several consulting and digital capabilities to the government sector
 - In 2016, The US Federal government awarded FedRAMP certification (Federal Risk and Authorization Management Program) to Accenture Federal Services, thus ensuring that the ERP solution offered by the company is compliant with the federal security requirements
 - It has won several contracts by the federal departments including:
 - In 2020, the company won a contract by the **US Airforce** to establish a new cloud-based platform to host its ERP functions, including financial management, human resources, payroll, and logistics
 - In 2018, the company was awarded contract to build a new cloud solution based on SAP S/4HANA for the **US Department of Agriculture** (USDA) and migrate its on-premise data-center-based architecture to a cloud solution for its financial operations

Source: Accenture and SAP to team up..., Economic Times, [Link](#); Accenture Completes Acquisition..., Accenture, [Link](#); Accenture to Expand Workday Practice to Help Higher Education and Public..., Accenture, [Link](#); Accenture snaps up..., CRN, [Link](#); Accenture buys Oracle ERP cloud partner DAZ Systems..., Channele2e, [Link](#); Accenture Federal Services Wins U.S. Air Force..., Accenture, [Link](#); Accenture Federal Services Wins U.S. Air Force..., Accenture, [Link](#); Accenture Receives FedRAMP..., Accenture, [Link](#); Accenture Federal Services Wins contract..., Accenture, [Link](#); Merger, Acquisition and Divestiture Value Creation, Accenture, [Link](#)

System Integrators Profile - IBM

IBM Experience With ERP Solutions (1/2)

Case study 1- Maple Leaf Sports and Entertainment (MLSE)

Overview: IBM has a long standing relationship with Oracle. In 2019, IBM was also named as the Partner of the Year – North America at the Oracle Excellence Awards. IBM has 10+ Oracle specific delivery centers globally

- **Challenge:** MLSE, Canada's sports franchises, had an outdated ERP solution that was reliant on manual tasks and paper-based work, resulting in inaccuracy and inefficiency within the finance team
- **Solution provided:** Deploying Oracle ERP solutions with the help of IBM Services
- **Benefits/outcome:** Deploying Oracle Cloud ERP resulted in:
 - Processing of 60,000 invoices through automation
 - Automated workflows helped in streamlining operations, resulting in savings of hundreds of hours
 - Financial management became more efficient, thus, facilitating the implement of new revenue-driving initiatives

Case study 2- Trustmark

Overview: In August 2020, IBM and Workday extended their ongoing partnership to provide a combined solution for return-to-work issue in the aftermath of the pandemic

- **Challenge:** Trustmark, 100 year old financial services company, had multiple legacy systems and unstandardized processes which was impacting their efficiency
- **Solution provided:** Deploying Workday ERP and HCM in collaboration with Meteorix, an IBM company, as a system integrator
- **Benefits/outcome:** Deploying Workday ERP with the help of IBM resulted in:
 - A single platform that could manage all 7,000 employees of the company
 - Different standards of reporting were eliminated and multiple payroll systems were merged to form an integrated platform
 - Workday also assisted in streamlining the time-tracking process, thus, providing better visibility of time and expenses

Case study 3- PayPal

Overview: IBM was SAP's first Global Alliance Partner since 1989 with 9,000+ consultants trained in SAP S/4HANA who have delivered 250+ projects

Challenge: PayPal faced issues in processing high volume of donations and distribution of funds with their legacy custom-built, on-premise ERP platform that was meant for smaller organizations

- **Solution provided:** Deploying SAP S/4HANA Cloud in collaboration with IBM
- **Benefits/outcome:** Deploying SAP ERP resulted in the following:
 - 2,500% increased capacity to handle donations per day with 4.3 million transactions processed in 2019
 - ERP system migration from on-premises to cloud was done with agility within 6 months
 - SAP ERP provided scalability with good speed while reducing human error in transactions

Source: IBM, Oracle Cloud ERP, [Link](#); IBM, Workday, [Link](#); IBM, SAP, [Link](#);

IBM Experience With ERP Solutions (2/2)

Case study 4- Bayfront Health

Overview: In 2013, Infor partnered with IBM to offer its enterprise application through IBM's public, private, and hybrid SmartCloud services

- **Challenge:** Bayfront Health System, a private non-profit medical institution, was facing challenges due to multiple unstandardized applications, databases, and platforms which led to an increased maintenance and support cost
- **Solution provided:** Deploying Infor Enterprise Applications with the help of IBM
- **Benefits/outcome:** As a result, Bayfront was able to consolidate all applications and databases under one consolidated platform. This in turn led to:
 - Improved access to HR information
 - Overall reduction in cost of ongoing operations
 - Better allocation of IT personnel to core business activities
 - Increase in storage capacity with transparency in activities

Case study 5- New Jersey Department of Community Affairs

Overview: IBM is one of Microsoft's largest global partners. It has been a member of the Microsoft Certified Partner program since 1995 and serves as a system integrator for MS Dynamics 365 ERP

Challenge: The New Jersey Department of Community Affairs (NJDCA) required a system for handling the eligibility determination for disaster-stricken citizens

- **Solution provided:** Microsoft Dynamics 365 solution was deployed with the help of IBM Services
- **Benefits/outcome:** The deployment of Microsoft Dynamics 365 solution led to:
 - Reduction in paper-based workflow, thus, making the process of inspection easier
 - It also helped in managing and analyzing the application process digitally
 - Systems to schedule, record, and collect payment for inspections, and issue penalty fines were automated

Source: IBM, Infor, [Link](#); IBM, Microsoft Dynamics 365, [Link](#);

IBM ERP Industry Knowledge

Eminence in Space

- IBM provides pre-built templates to eliminate expensive custom coding and support effective ERP implementation from vendors like Oracle, Workday, SAP, and Infor. Additionally, it offers flexible payment plans to the organizations to enhance ROI
- IBM provides RapidMove adoption approach to accelerate the implementation process. The services provided under RapidMove include SAP S/4HANA Rapid Discovery, IBM Rapid Move for SAP S/4HANA, and IBM RapidMove for Oracle Cloud
- The company also publishes insights and conducts events related to various ERP vendors detailed earlier:
 - IBM has published thought leadership on ERP success, “A guide for a successful ERP strategy in the midmarket: selection, services, and integration”
 - IBM conducts SAP S/4HANA transformation webinars and shares knowledge on digital transformation
 - Oracle and IBM have shared insights on Government sector via white paper on “State and Local Government in the Cognitive Era”
- Industries served: Automotive, Aerospace, Defense, Consumer products, Healthcare, Life Sciences, Energy & Utilities, Education, Industrial products, Insurance, Professional Services, Retail, and Government

Market perception, Acquisition, and Public Sector knowledge

- IBM is also recognized in several market reports such as Gartner, Forrester, Everest, IDC, etc.
 - Gartner has named IBM as a leader in the Gartner Magic Quadrant for SAP S/4HANA Application Services, Worldwide for 2020
 - Gartner has named IBM as a leader in the Gartner Magic Quadrant for Oracle Cloud Applications Services, Worldwide for 2020
- Key acquisitions of IBM to enhance their ERP capabilities include:
 - In Nov 2020, IBM has announced a definitive agreement to acquire TruQua Enterprises, LLC, an IT services and consultant for SAP, to broaden their consulting expertise & capabilities in SAP solutions implement and to drive an enterprise-wide transformation through the adoption of SAP S/4HANA, the latest generation of SAP's ERP business suite
- IBM has helped many federal departments in ERP implementation and some of its key contracts include:
 - IBM has helped Government Facility Services Limited to maintain estates compliance and support the Prison Services by implementing Oracle ERP Cloud for finance, HCM Cloud for global HR, and Oracle SCM Cloud for procurement

Source: IBM, SAP, [Link](#); IBM, ERP Partners, [Link](#); IBM, Oracle, [Link](#); IBM, Infor, [Link](#); IBM, Government Facility Services Limited, [Link](#); IBM, TruQua Enterprises, [Link](#)

System Integrators Profile - CherryRoad

CherryRoad Experience With ERP Solutions

Case study 1- Hampton Roads Transit (HRT)

Overview: CherryRoad has a long standing relationship with Oracle for implementation of Oracle Financial Cloud and Procurement cloud services.

- **Challenge:** Hampton Roads Transit (HRT) was facing challenges with real-time financial reporting, payroll processing, and contract administration
- **Solution provided:** Web based Oracle ERP solutions with CherryRoad as system integrator
- **Benefits/outcome:** Deploying web based ERP for Finance, Procurement, and HR resulted in:
 - Processing of 129-step process within General Ledger system in lower cycle time and automated pension calculation
 - Enhanced fleet maintenance and inventory management
 - Real time financial reporting with enhanced security and controls

Case study 2- Trustmark

Overview: CherryRoad is a Oracle's Platinum partner for implementing Oracle cloud solutions

- **Challenge:** K-12 School District wanted to move to cloud from legacy data center & on-premises applications to reduce total ownership cost and improve overall business operation
- **Solution provided:** Oracle Cloud based ERP and Student Information System (SIS) with the help of CherryRoad
- **Benefits/outcome:** Deploying Oracle ERP resulted in:
 - Reduction in operational costs with elimination of personnel and maintenance cost associated with data center
 - Standardized and streamlined workflow across business processes
 - Improved transparency with Employee self-service portal

Source: CherryRoad, Hampton Roads Transit Solution, [Link](#); CherryRoad, K-12 School District; [Link](#);

CherryRoad ERP Industry Knowledge

Eminence in Space, Partnership, and Market perception

- CherryRoad has 30+ years of experience in the public sector; their clientele includes local, state, and federal governing authorities; energy & utility companies; pension providers; not-for-profit organizations etc.
- CherryRoad renders cloud offerings, enterprise strategies, and operation services with the help of vendors such as Oracle and Infor
- CherryRoad has previously launched solutions that aid in improving security, compliance, and procurement practices of an organization:
 - CherryRoad's Dakota 211 platform provides an to access Oracle cloud and on-premise applications
 - CherryRoad's ProcurementAI helps National Association of State Procurement Officials (NASPO) to retain control over spend management and meet contractual obligations
- Industries served: Transportation, Higher Education, Online Education, Healthcare, Commercial and the Public Sector
- Oracle named CherryRoad as Oracle's 2018 innovation partner of the year (North America) in the public sector for second consecutive years

Public Sector knowledge

- CherryRoad has helped many federal departments in ERP implementation and some of its key contracts include:
 - CherryRoad has helped the State of Alaska to restructure and simplify its entire cloud procurement process by providing cloud solutions (IaaS, PaaS and SaaS) and managed services to the state and local governments
 - CherryRoad has helped the City of Pasadena to upgrade their ERP Financials system with a primary focus on cost-cutting; overall reduction of ~40 percent in contracting costs, and ~80 percent reduction in hardware purchase costs
 - CherryRoad has helped the State of Delaware Office of Pension by offering a consulting on ERP system utilization that led to a ~ 300 percent ROI through cost/benefit analysis and transactions management
 - CherryRoad and Oracle Certified Advantage has helped the University of Delaware to enhance their enterprise and HRMS system, an ERP system, to aid procurement services, general accounting, budgeting, billing, treasury functions, and human resource functions

Source: CherryRoad, Public Sector, [Link](#); CherryRoad, Innovation, [Link](#); CherryRoad, Dakota 211 Platform, [Link](#); CherryRoad, ProcurementAI, [Link](#); CherryRoad, Gartner Innovation Insight 2020, [Link](#); CherryRoad, Oracle Excellence Award 2018, [Link](#); CherryRoad, State of Alaska announcement, [Link](#); CherryRoad, City of Pasadena case study, [Link](#); CherryRoad, State of Delaware Office of Pension case study, [Link](#); CherryRoad, University of Delaware case study, [Link](#)

System Integrators Profile - Tyler

Tyler Experience With ERP Solutions (1/2)

Case study 1- Union County Public Schools

Overview: Tyler has 35+ years of experience in the public sector

- **Challenge:** Union County Public Schools faced the challenge of outdated legacy software and an increased reliance on third-party systems & plug-ins to meet operational needs. The school wanted to modernize its technology systems
- **Solution provided:** Tyler Munis ERP
- **Benefits/outcome:** Tyler offered a holistic approach from software development, implementation, upgrades, and support services which resulted in:
 - Streamlined financial and human resource management requirements leading to enhanced accuracy, transparency, and efficiency

Case study 2- City of Lawton

Overview: Tyler ERP solution is designed to cater to public sector requirements

- **Challenge:** The city deployed several custom developed software and was planning to modernize its infrastructure to integrate its public safety, financial & human resources information, and other citywide processes
- **Solution provided:** Tyler Munis ERP, EnerGov civic services, New World public safety, Incode court, Brazos eCitation, Socrata data and insights, and Tyler Content Manager
- **Benefits/outcome:** Tyler led the implementation of Munis ERP which resulted in:
 - Automated reporting capabilities for staff
 - Minimized user error as a result of shift to electronic processes
 - Increased transparency and access of city finances to the public

Source: Choosing the Right ERP Partner, Tyler Technologies, [Link](#); City of Lawton, Oklahoma, Creating "Virtual City Hall" with Multiple Tyler Technologies Solutions, Tyler Technologies, [Link](#)

Tyler Experience With ERP Solutions (2/2)

Case study 3 - City of Bloomington

Overview: Munis is a public sector-focused solution

- **Challenge:** The city of Bloomington struggled with an outdated legacy software which lacked modern functionality & features and provided limited employee access to reporting capabilities, leading to an increased manual paper work and process by the finance department
- **Solution provided:** Tyler Munis ERP
- **Benefits/outcome:** Tyler led the implementation of Tyler Munis which resulted in:
 - Easy access to real-time financial data, leading to enhanced visibility of information across all departments
 - Reduced workload of finance department to input data and pull city reports, enabling the team to focus on more critical work

Case study 4 - Winston-Salem/Forsyth County Schools

Overview: Tyler has 35+ years of experience in the public sector

- **Challenge:** Winston-Salem/Forsyth County Schools employs more than 7,000 staff members and serves around 55,000 students across 81 schools. The school wanted to deploy a solution to streamline its workflows and increase efficiency in day-to-day tasks
- **Solution provided:** Tyler Munis ERP
- **Benefits/outcome:** Tyler led the implementation of Tyler Munis ERP which resulted in:
 - Automated financial and HR workflow across the district
 - Streamlined purchasing, timekeeping, and payroll for all employees
 - Provided 24/7 remote access with built-in disaster recovery services

Source: Time and Cost Savings With eProcurement, Tyler Technologies, [Link](#); Moving from Paper-based to Paperless, Tyler Technologies, [Link](#); Fourth-Largest North Carolina School District to Modernize Operations with Tyler Technologies' K-12 Solution, BusinessWire, [Link](#)

Tyler ERP Industry Knowledge

Eminence in Space

- Tyler is trusted partners for ERP implementation of its own solutions such as Tyler Munis ERP and offers product solutions to the government organizations
- The company also publishes several resources including blogs, insights, and webinars in the ERP space such as:
 - Publication on Tyler's experience in virtual implementation of ERP systems including customer case studies
 - Blog on ERP best practices during the Covid-19 pandemic
 - Published five key questions on finding the right school ERP provider
 - Insights around the benefits of deploying modern ERP systems for the government organizations and public agencies
 - Webinars conducted by Tyler capturing the ERP system experience, insights, and lessons from local government and school leadership
 - It also publishes several video-based client testimonials sharing their experiences with Tyler ERP solutions including implementation, client support, and ongoing training & resources
- Industries served: Government, Public Sector, Education, Health, etc.

Public Sector Knowledge

- Tyler has more than 35 years of experience in offering ERP solutions to the Public Sector with a 98 percent client retention rate
 - Its Government ERP solutions including municipal accounting software for financial management was implemented by 4,500+ cities, countries, and special districts
- Over the past five years, around 35 percent of Tyler's implementation services were delivered remotely; some projects were delivered **100 percent virtually**
 - For instance, in 2020, Central Bucks School District in Pennsylvania resorted to Munis ERP solution as part of modernizing its IT software. Tyler Technologies implemented the entire ERP solution through a virtual process, streamlining the financial and human resource management processes of the school

Source: Blogs, Tyler Technologies, [Link](#); Insights, Municipal Accounting Software, Tyler Technologies, [Link](#); Implementing a Powerful ERP Solution, Virtually, Tyler Technologies, [Link](#)

Systems Integrator Analysis - Summary and Key Observations

Partnership/Experience in ERP Solutions

SI	Oracle	Sage Intacct	Workday	Oracle NetSuite	SAP S/4 HANA	Infor	Tyler Munis ERP	Microsoft Dynamics 365 ERP
Deloitte	✓	✓	✓	✓	✓	✓	✗	✓
Accenture	✓	✗	✓	✓	✓	✓	✗	✓
IBM	✓	✗	✓	✗	✓	✓	✗	✓
Cherry Road	✓	✗	✗	✗	✗	✓	✗	✗
Tyler	✗	✗	✗	✗	✗	✗	✓	✓

Source: KPMG analysis; Need to conduct detailed RFI to understand integrators' comprehensive partnerships and experience in ERP integration by solution

Systems Integrator Analysis - Summary and Key Observations

Key Observations

- **Deloitte** has ERP implementation partnership with major ERP vendors with solution specific certified consultants and practitioners.
- **Accenture** is strengthening its ERP industry knowledge and capabilities through acquisitions and partnerships with key vendors such as **SAP, Oracle, and Workday**.
- **CherryRoad** has 30+ years of experience in ERP implementation for private & public sector, federal governing authorities and not-for-profit organizations.
- The majority of **Tyler's** clients are Public Sector with a 98 percent client retention rate. Their Government ERP solutions are implemented in 4,500+ cities, countries, and special districts.