Maximo as a tool for e-Commerce
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P2Insight
MIKE POPOVIC AND P2INSIGHT

- I am a 20+ year Maximo and EAM veteran

- Previously with PopWare and The Createch Group

- At P2Insight, we focus on one thing: Extending Maximo with E-Commerce capabilities
  - Extending Maximo to enable collaboration with external organizations through the application of modern e-commerce technology
  - We provide eCommerce and Procurement advisory service: Assessments, Designs, and Recommendations
  - The Order Hub: brings P2P functionality to Maximo for Purchase Orders and Work Orders
  - We developed punch-out capabilities for Maximo, with direct access to Vendor Catalogs, and we have partnered with Vroozi to provide punch-out capability to their Marketplace

E-Commerce

Introduction

What is meant by E-Commerce?

- **Commerce**: "activities that relate to the buying and selling of goods and services among countries and/or organizations"

- **E-Commerce**: "commercial transactions conducted electronically on the Internet."

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E-Commerce and Supply Chain at Home

- Easy price comparisons
- Full product descriptions and ratings
- Availability
  - location, ship date, expedited shipping options, quantities available, bulk discount options
- Instant customer support
- Automated payment, order receipt, convenient returns

- Instant info: (Uber and similar) location, wait times, availability, instant price quote, automated billing, driver ID, etc.
- Order Tracking
  - While being prepared for shipment
  - While being shipped by courier company

eCommerce Terms & Technologies

- **B2B**: Business to business – one business selling to another

- **B2C**: Business to consumer – selling direct to consumers

- **P2P**: Procure to pay – integration of purchasing and A/P processes, designed to provide organizations with control and visibility over the entire life-cycle of a transaction – from the initial order to the final invoice being processed

- **S2P**: Source to Pay – similar to P2P but also includes Sourcing

- **EDI** – electronic data interchange - Computer-to-computer exchange of business documents in a standard format

Ecommerce Terms & Technologies

- Punch-out – An application "punching out" to another applications to retrieve and bring back information.

- On-Line Vendor Catalogs – A proprietary on-line catalog by specific Vendor, only offering their goods and services

- Marketplaces – Consolidator - a type of e-commerce site where product or service information is provided by multiple third parties, and transactions are processed by the marketplace operator.

- Block Chain - a distributed database that maintains a continuously growing list of records, called *blocks*, secured from tampering and revision.
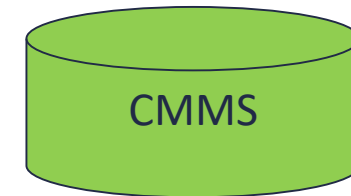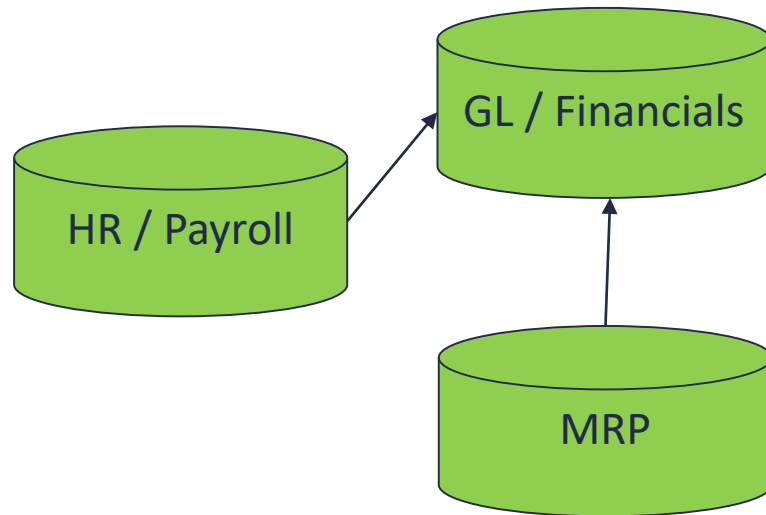
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What are the benefits of E-Commerce?

- There are many, but the main ones for B2B are:
  - Faster Transaction Processing – almost instant
  - Better and more Communication – as it is easy to communicate, more communications takes place... more acknowledgment, more confirmations, more expediting, etc.
  - More Accurate Data – no data entry, no double entry
  - Self Service Capabilities – provides transparency to third parties, so they do not have to call you and play phone tag!
  - Increased visibility and trust with the supply chain... Increase Reliability! Your supply chain is part of your Reliability Capability

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E-Commerce & The Modern Supply Chain

Integrated system

- In the early days...

Integrated system

• Today…

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Integrated system

- More Accurately, Today…

Buying Organizations

Selling Organizations

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Modern Supply Chain Environment
SPECIALIZATION

- Organizations are doing more with less
  - Efficiencies, cost reductions, and optimization
- Specialization leads organizations to focus on their core competencies and outsource everything else
  - Specialists who are not always needed, are Contracted, as needed
  - Surge in demand is met with contractor resources
- Minimize inventory on hand
  - Inventor is costly and quickly obsoleted
  - Reduce overhead associated with warehouse space and management
  - Just in time purchasing

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Modern Supply Chain Environment
INCREASED INTERDEPENDENCE

- Organizations are becoming more dependent on each other
  - Reliable communication is a must
  - Ad-hoc specialists must be correctly scheduled
  - Staff augmentation specialists need to be appropriately skilled and contract terms well defined
  - Inventory must be manufactured, shipped, and delivered on time
- As interdependence increases, so does the risk
  - Misunderstandings
  - Order terms
  - Price
  - Scheduling
  - Delivery dates

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Interdependence in Supply Chain
MITIGATING THE RISK WITH ECOMMERCE TOOLS

eCommerce tools:

- Easier and more reliable communication between organizations

- Increase visibility across the supply chain
  - Order statuses, agreed upon dates, terms and conditions, etc. visible to all concerned parties

- Provide better control over communications with external organizations
  - Both parties enter their own data – increased accuracy

- Provide automation options that shorten processes
  - Automated reminders
  - Workflows across organizations
  - Logging of all communications

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E-Commerce
for Maximo

Maximo as a tool for E-Commerce

- Maximo is a big investment: time, money, effort
  - it helps you control, analyze, and continuously improve internal operations.
- Why not leverage that investment and extend it to your dealings with external organizations?
  - eCommerce technology supports it
  - Modern supply chain requires it
    - Scheduling
    - Delivery
    - Easy Communication
    - Accountability
    - Auditability

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Maximo as a tool for E-Commerce

- Many Maximo customers opt for external procurement systems, such as SAP, Oracle, etc,
  - They have built in E-Commerce options
  - They can offer greater connectivity with external orgs
  - Can produce a disjointed network / process
  - Can be expensive to maintain and administer
- But, today, you can achieve the benefits of modern eCommerce technology through Maximo without an expensive rip-and-replace

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Maximo as a tool for E-Commerce

- Plus, even if you are using a different Procurement system (SAP, Oracle, etc.), there are many components remaining in Maximo that can be e-Commerce enabled:
  - Sourcing: Requisition Entry and Work Order Planning, punch-out to an on-line Vendor Catalog
  - WO dispatch and scheduling with third parties
  - Time Card entry and WO completion updates by third parties
  - Advance Shipping notices (if you are doing receiving in Maximo)

- Any time you need to communicate with a third party, the process can probably be enhanced with e-Commerce capabilities.

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What can E-Commerce give you?
THE ABILITY TO WORK CONNECTED TO EXTERNAL ORGANIZATIONS

- Accurate price information and descriptions
- Visibility into inventory or availability
- Confirmation of dates: mfg, shipping, delivery
- Complete information – safety information, lead time…
- Instant communication with extended supply chain
- Complete listing of items or services on offer
- Logged history of interactions
- Confirmation, acknowledgement, negotiation
- Automation across organizations

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What can be connected?

- Sourcing by punching out to a Vendor's on-line catalog (eg. Granger, Amazon, Staples, etc.)

- Sourcing by punching out to a Marketplace (eg. Ariba, Vroozi, etc.)
  - Marketplace has many vendors in it.

- Delivering of a PO to the Vendor for Acknowledgement of Receipt, Confirmation of Acceptance, and/or Negotiations

- Expediting of a PO, pre or post delivery.
  - With Vendor updating the status

- Notifications and updates of PO
  - Changes in delivery dates, quantities, etc.

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What can be connected?
PROCUREMENT

- Change Request notification after acceptance and confirmation of a PO (cancel order, change order, etc.)

- Advance Shipping Notice to Buyer

- Receipt acknowledgment to Vendor

- Receipt dispute resolution

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What can be connected?
PROCUREMENT

- Delivering a Three-Way Matched Invoice directly into the Buyer Organization's Maximo

- Delivering a PDF Invoice to Buyer and system using OCR to decipher the attributes and create an Invoice in Maximo

- Posting of Invoice and status transitions so Vendor can see progress

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What can be connected?
PROCUREMENT

- Offering Dynamic Discounting, to entice Vendor to offer a discount in lieu of earlier payment, or to entice Buyer to pay earlier in lieu of a discount.

- Maintenance of Vendor and Contact details automatically
  - Search for new Vendors/Suppliers

- Update your Item Master with Manufacturer, Model, and Item Image from the Vendor's Catalog
  - And add the Vendor's Catalog # to the INVVEND

- RFQ Bid Submissions
  - Award notifications
  - Open Invitations

- Purchase Price Contract updates

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What can be connected?
E-COMMERCE IS NOT JUST FOR GOODS...

- For occasional contracting:
    - WO delivery to contractor for bidding and/or quoting.
    - WO dispatching to assign work to a contractor
    - WO Scheduling with Contractors

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What can be connected?

- For Staff Augmentation contracting:
  - Send list of WO's assigned to Contractors staff
  - Entry of Time Cars by Contractor, and submission for Approval
  - Time Card Dispute Resolution
  - Approval of Time Cards by Buyer, and creation of a PO Release against a Blanket Order

What can be connected?

E-COMMERCE IS NOT JUST FOR GOODS...

- For all external Work Orders:
  - WO Closing details updates (status, comments, time cards, etc.) by Contractor
  - WO time cards approval by Buyer
  - Time Card Dispute Resolution
  - WO completion acceptance and approval by Buyer
  - Customer service request for Service Providers
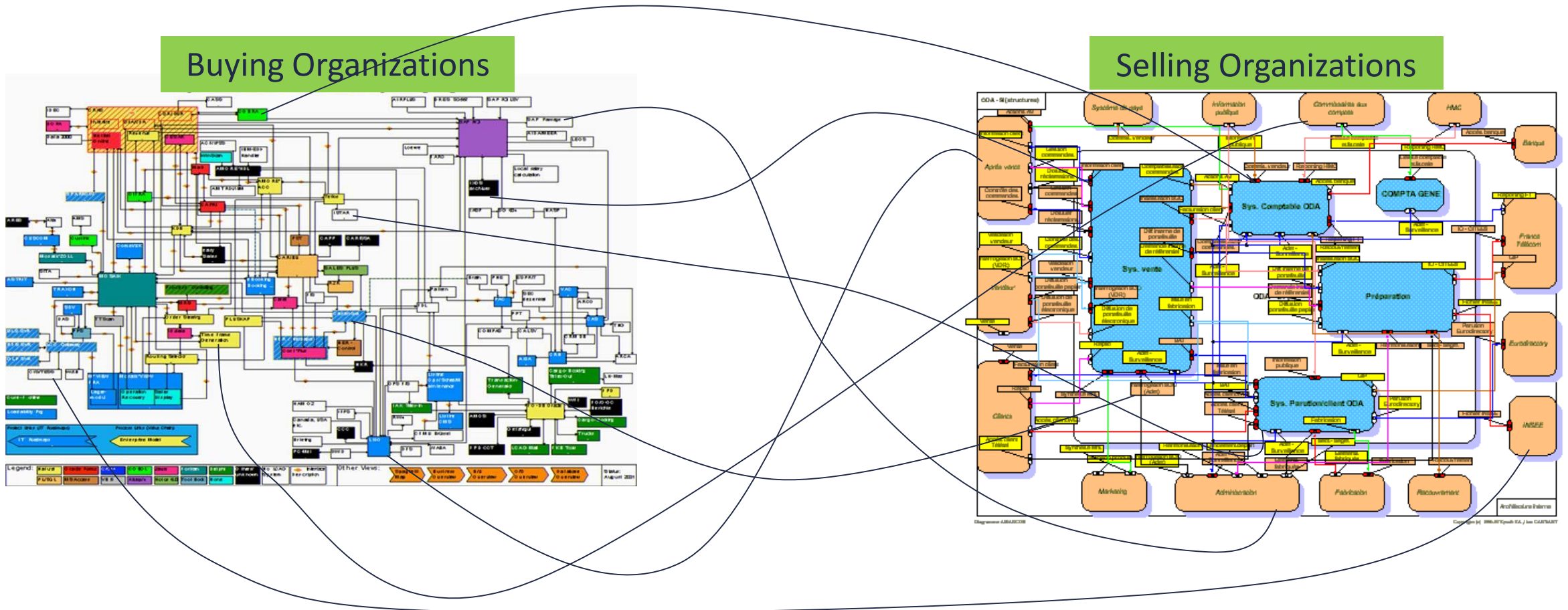 - Customer approval for Service Providers

What can be connected?
E-COMMERCE IS NOT JUST FOR PURCHASING...

- Shared High Cost Critical Inventory:
  - Form a partnership with external companies who occasionally need the same high cost item you do
  - Provide visibility to a "virtual" shared storeroom
  - Request item from "source" organization
  - Maintain lower inventory cost
  - Ensure availability through shared schedules

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Integrated system

- With E-Commerce…

Buying Organizations

Selling Organizations

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E-Commerce: Now is the Time

Timing is Everything…

- E-Commerce is the answer to many of today's challenges.
- MRO Software had an E-Commerce solution (remember MRO.COM OCI?), but it was shut down in 2009.
- If e-commerce is the answer, why was it shut down?
  - I believe it was before its time. People were just not ready.

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What has changed?

- Connectivity... just about everyone is connected just about all the time

- The Cloud... people are beginning to trust the cloud and move to it en mass

- Vendor attitudes toward Competition - they are actually publishing catalogs with prices on-line

- Pricing Model - I recall IBM charging around $4.50 per item to list items in its OCI Catalog... now it is free.

- User Experience and comfort levels - Organizations are groups of people, and people are now using Amazon, On-Line Banking, Netflix, UBER, etc.

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What has changed?
STANDARDIZATION

- Open Interfaces - Software Vendors and large Supply Chain Vendors have adopted standards (Web Services, API's, etc.)
  - cXML - Commerce eXtensible Markup Language: created by Ariba in 1999, intended for communication of business documents between procurement applications, e-commerce hubs and suppliers.
  - OCI - Open Catalog Interface: standard format used by SAP, ORDIGES, Microsoft and other ERP / Purchasing Systems providers when connecting to external punch-out catalogs.
  - Open Web APIs
  - JSON - JavaScript Object Notation - open-standard format that uses human-readable text to transmit data objects. It is a very common data format used for asynchronous browser/server communication.
  - Maximo - Fully enabled with Web Services, API's, and JSON.

What has changed?
ACCESSIBLE VENDOR CATALOGS

- Vendor Catalogs - are available through their web sites, and/or through third party consolidator web sites (Marketplaces)
  - Available for human interaction, and through Open Web Interfaces
  - Major vendors have SDK's, API's and Web Services for third parties to connect to their e-commerce sites
  - Easy to integrate, maintain, and manage

Let's get started

How do you start?
DETERMINE YOUR PRIORITIES

- What are your biggest problem areas in procurement?
  - Time to process orders
  - Lack of acknowledgment by vendors / poor communication
  - Maximo inventory / vendor data inaccuracies
  - Lack of visibility into external order process
  - Poor relationships with vendors
  - Inability to access time-based discounts
  - Time-consuming data entry of WO details for work performed by external contractors
- Proper definition of the problem is the best way to lead you to the ideal solution

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How do you start?
THINGS YOU CAN DO IN-HOUSE

- Using Integration Framework synchronize your objects between you and your vendors/contractors

- Use the available API's, cXML and OCI standards

- Develop a Punch Out Capability in Maximo

- Utilize a cloud based application that enhances the communications /negotiations process

- Develop it, or buy it, but do it!…. There is no better time than the present

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Now is the time...

- Your internal systems are fully connected

- Your vendors' internal systems are fully connected

- But, when you communicate, do you send pieces of paper, or faxes, or emails, or make phone calls?... all disconnected, all non-logged, all inefficient

- Come on, it's 2017!

PURCHASING LIKE IT'S 2017

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For more information…

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