Mobile Inventory and Future Plans for Maximo at Sydney Water

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About Sydney Water

- Who are we
  - Sydney Water is Australia's largest urban water utility with over 3,000 staff and an area of operations covering 12,700 km2
- What we do
  - Water
  - Wastewater
  - Recycled water
  - Stormwater
- To who
  - 4 million customers (Commercial and Residential)
- Governance & Ownership
  - State owned corporation with its own Board, a portfolio Minister and two shareholder Ministers

$20bn Assets Managed

- Water network
  - 9 treatment plants,
    254 service reservoirs,
    157 pumping stations,
    21,000 km of water mains
- Wastewater network
  - 31 treatment plants,
    678 pumping stations,
    23,000 km of sewer pipes
- Recycled water
  - 340 km of recycled water mains supplying over 15,000 homes
- Stormwater
  - 443 km of trunk storm water channels (5% of metro)
- Logistically
  - Low volume, high value (inventory/P&E)

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Today's Presentation

1. Maximo at Sydney Water
2. Maximo Mobile Inventory Manager
    a) Mobile scanners
    b) Refresh data in inventory and tools
3. Peoplesoft - Maximo integration
    a) Establish a ticket of work methodology
    b) Non-contract purchasing
    c) Contract purchasing
    d) Updates to Field Mobility Solution for Materials, tools and services

Maximo at Sydney Water

- Signed Maximo license agreement in October 1998
- Upgraded two Maximo instances (v4 and v5) to v7.1 in 2010/11
- Maximo integrated with:
  - IICATS (SCADA)
  - FRM (Field Resource Management - Ventyx)
  - FMIS (Peoplesoft Financials – limited integration)
  - Smallworld (GIS)
- Stats:
  - approx 1000 users;
  - 800 workorders per day or around 300,000 per annum;

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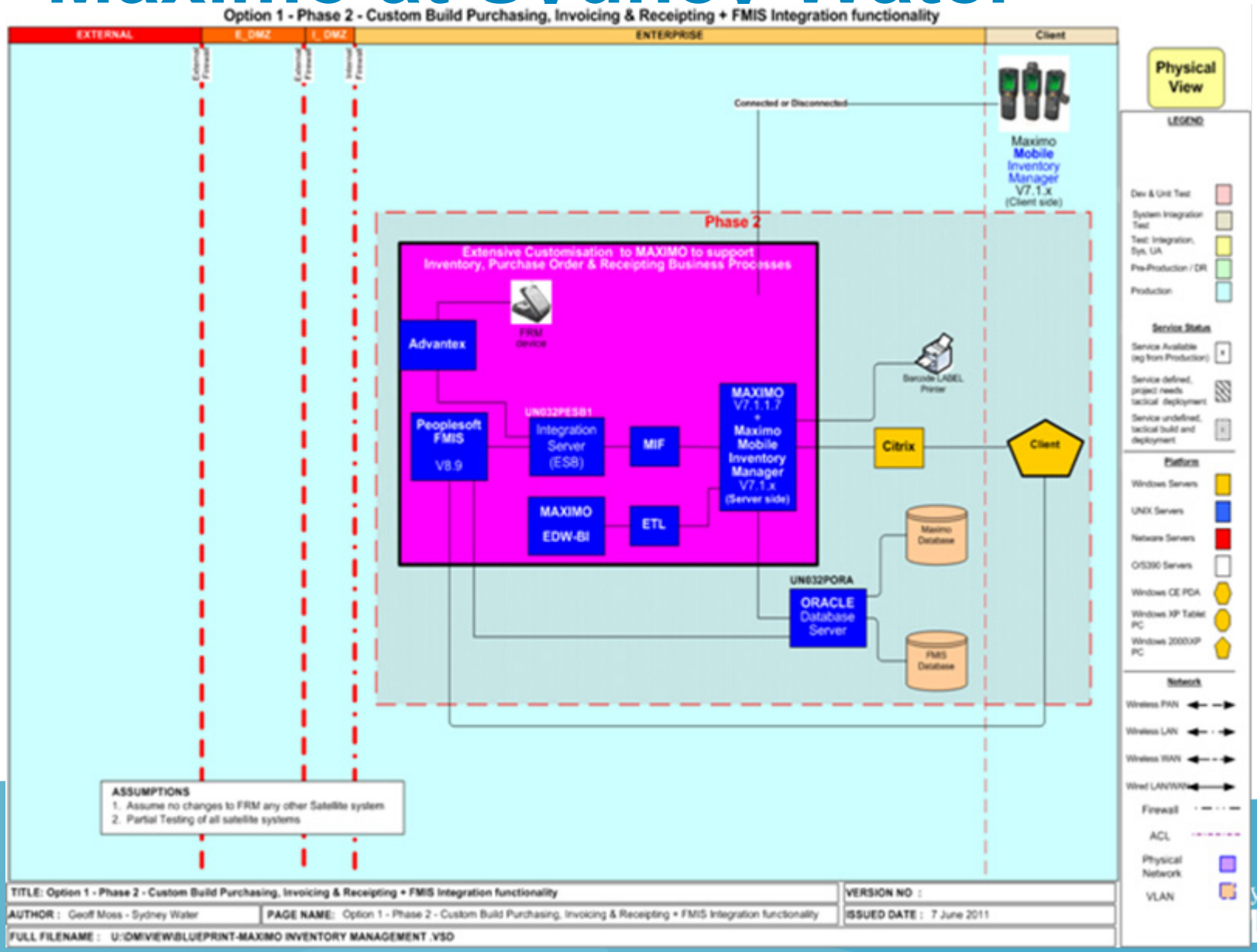
Maximo at Sydney Water



Project Vision

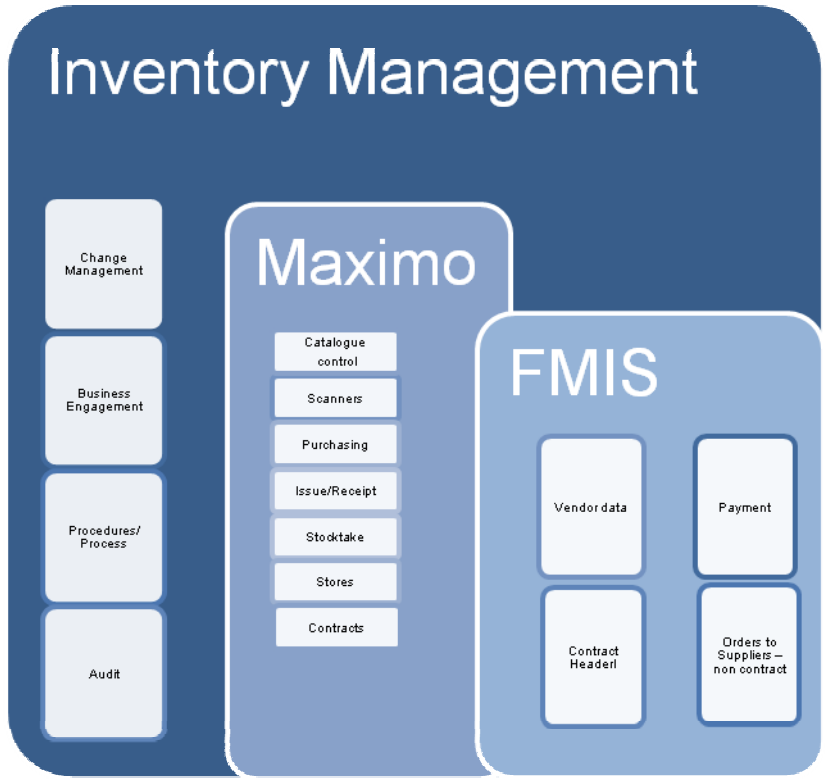
The end state of Project:

1. Full visibility of inventory
2. Controlled scanning of inventory (in/out)
3. Purchase all direct materials and services (contract/non-contract) through Maximo
4. Trigger levels for P&E to be established to determine useful life and streamline asset disposal processes
5. Allow suppliers greater access to Maximo
6. Minimise customisations

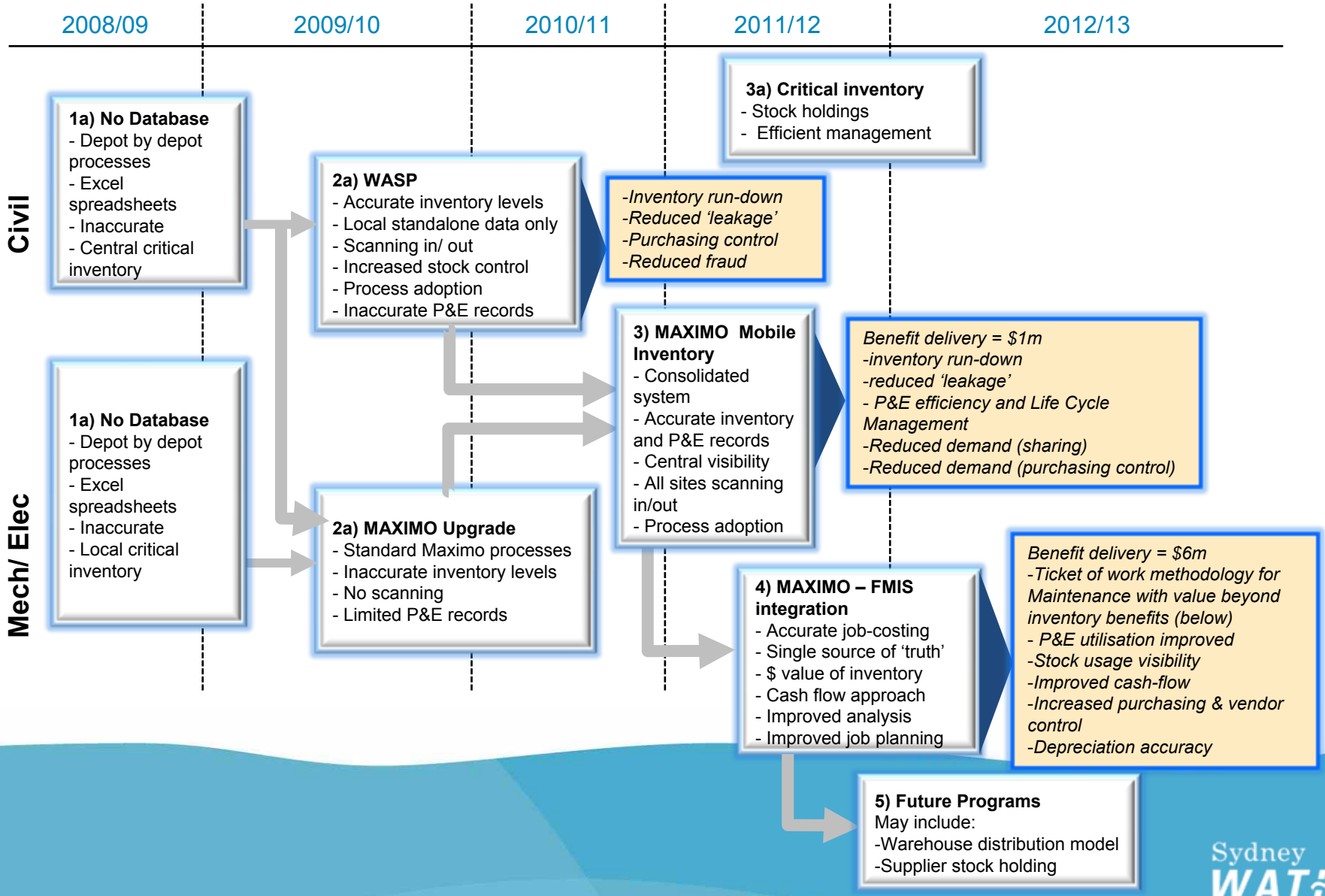
Project Outline

The Inventory Project includes:

- Establish Maximo as the core inventory/P&E management tool with use of scanning technology
- Establish Maximo as the single source of truth/ticket of work with full costing of materials/tools/services
- Integrated financials with Maximo



Project Timeline



Maximo Mobile Inventory

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Maximo Mobile Inventory

Situation faced:

- 2 inventory systems in place - Using standalone inventory system (database not linked to Maximo) or using Maximo
- $4-$5m of stock returned to main warehouse
- Poor inventory data quality of Maximo inventory
- Poor tools data in Maximo and never optimised
- Not using rotable items/tools
- Assets audits continually incorrect
- Lack of visibility of inventory across Civil and Mech/elec businesses

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Maximo Mobile Inventory

- Multi-site environment from low volume Depots to fully functioning warehouse
- Main Warehouse Store for critical items; larger fittings and pipes and large generators and pumps

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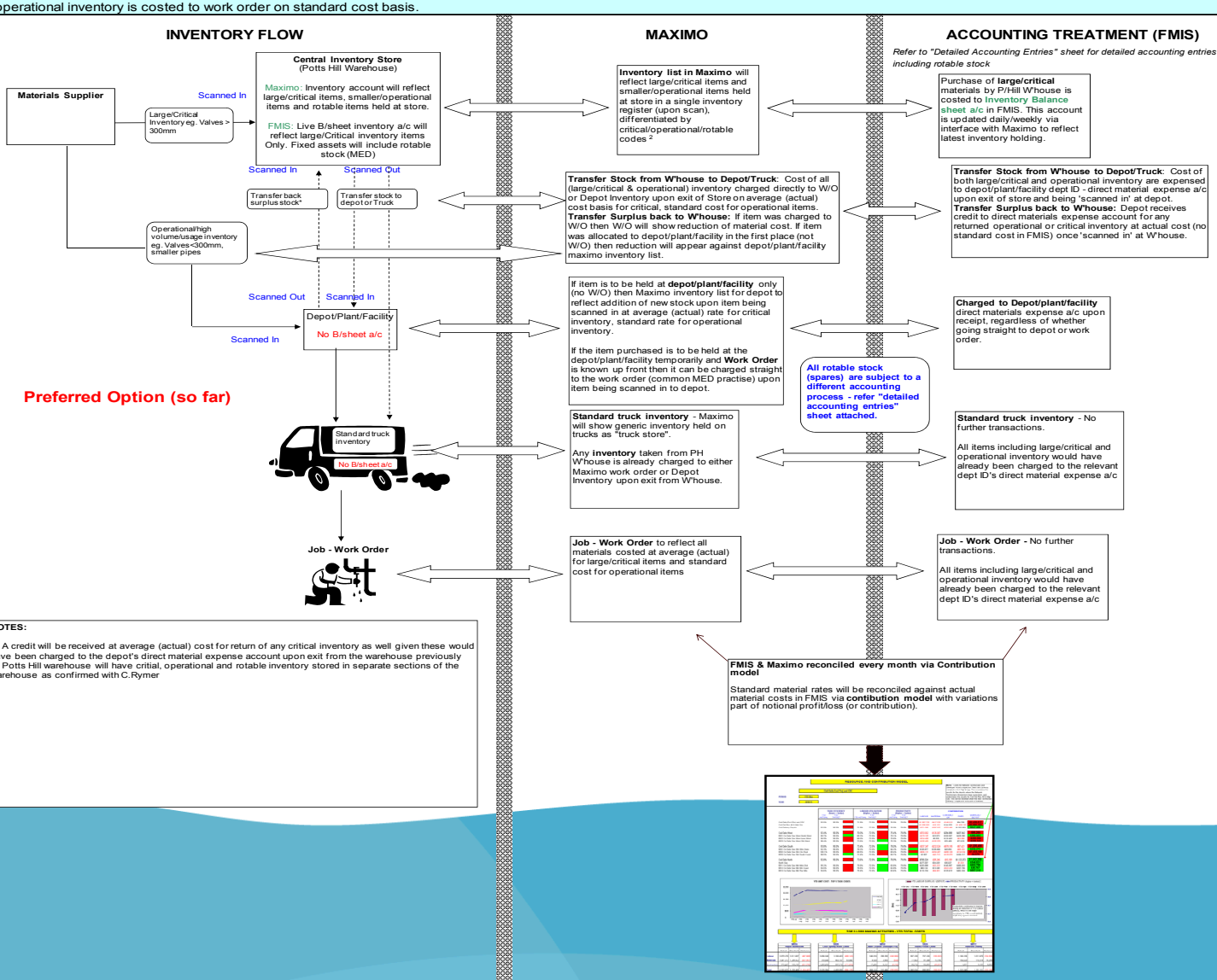
Maximo Mobile Inventory

- Using Intermec Scanner – CN50
- 1D/2D barcode scanner
- Simple to use
- 3.1mPix camera
- Scanner for delivery dockets etc
- 256Mb RAM
- IP54 rating

Maximo Mobile Inventory

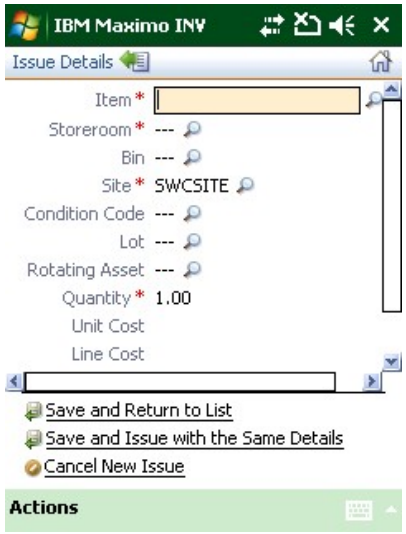
Option 2: Large/critical inventory is pushed to Work Order on average (actual) cost basis in Maximo
All operational inventory is costed to work order on standard cost basis.

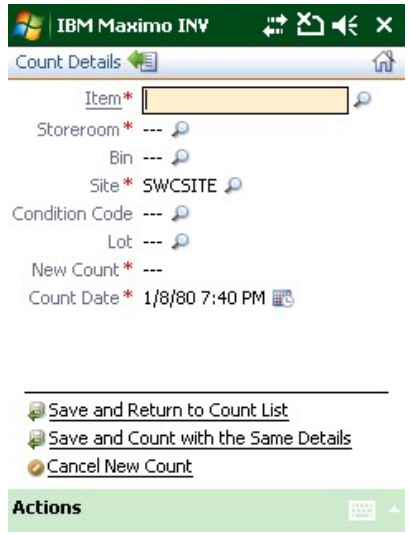


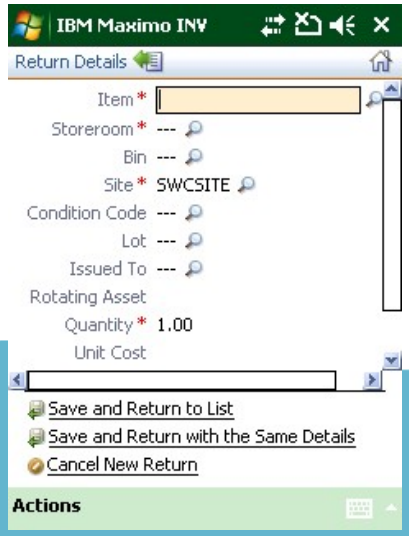
NOTES:

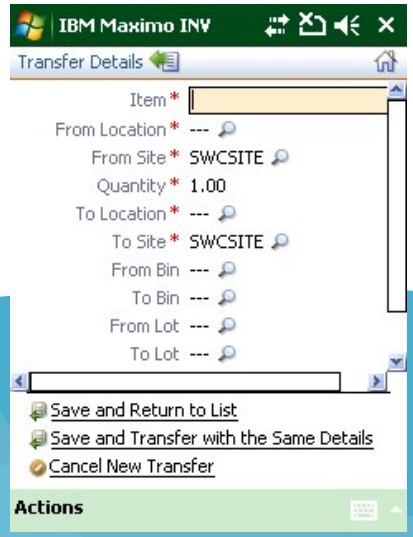
1) A credit will be received at average (actual) cost for return of any critical inventory as well given these would have been charged to the depot's direct material expense account upon exit from the warehouse previously
2) Potts Hill warehouse will have critial, operational and rotable inventory stored in separate sections of the warehouse as confirmed with C.Rymer

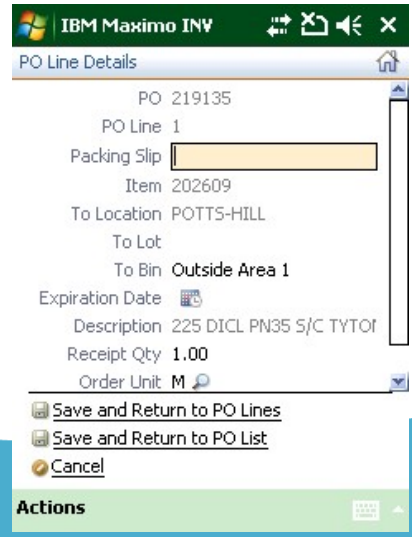
Maximo Mobile Inventory











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Maximo Mobile Inventory

General Findings:

- Testing of mobile devices at main data centre – did not test at remote sites – ended up with simple active sync issue
- Change management of moving from a low level unconnected inventory system to Maximo ie. Speed
- Getting controls on existing Maximo inventory system – we are re-building it
- Mobile Inventory easy to use
- Receipting function
- Rotating assets process not totally functional for Sydney Water use

Peoplesoft/Maximo Integration

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Peoplesoft/Maximo Integration

Situation Faced:

- Double keying of purchasing transactions in two systems
- Inaccurate work order costing
- Limited FMIS integration but produced errors and inconsistent data
- Costed everything to materials
- No real use of contracts module in Maximo
- Contractors have limited access to Maximo
- RFQ process not used

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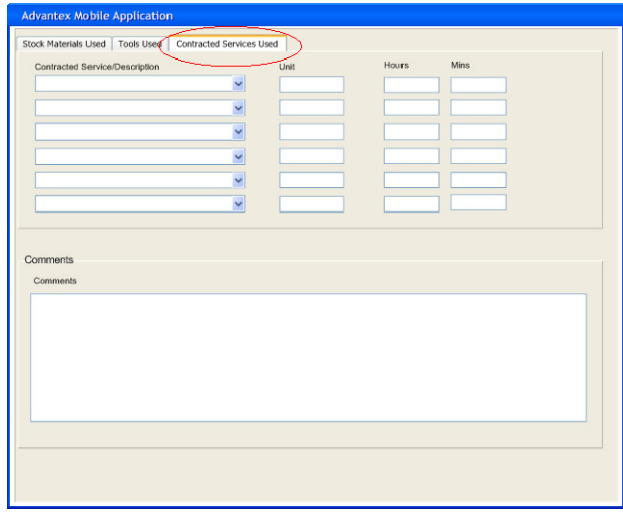
Peoplesoft/Maximo Integration

What we wanted to achieve:

- All purchases start from the workorder or inventory (CO/PO button on workorder)
- Full control of contracts from Maximo
- Contract Management tool established for Public Sector requirements
- Contractors do the work in Maximo (not us double keying it)
- We receipt contractors verify
- Devolving receipting to the field (USB scanners/Field resource system)

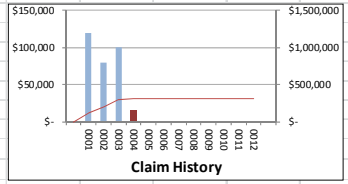


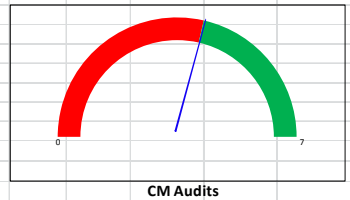
Peoplesoft/Maximo Integration

Contract Claim

Contract Claim for Payment

Contract ID :	99999		
Contract Description :	Traffic Management	Attach	* Subcontractor's Statement
Contract Manager :	Ronald Reagan	Attach	Occupational Health & Safety Reporting
Vendor Name :	Traffic Control Pty Ltd	Attach	Environmental Reporting
ABN Number :	99 999 999 999	Attach	Other
Total Contract Sum :	$1,000,000.00		
Total Expenditure to Date :	$ 315,641.50	3156%	
Total Contract Term (weeks):	52		
Contract Term Elapsed (weeks):	16	30.77%	
Claim Number :	0004		
Claim Date :	1/04/12		
Value of this Claim :	$ 15,641.50		
Number of Line Items :	7		
Number of CM Audits Required :	4		
Number of CM Audits Conducted :	4		
Outstanding Contract Order Lines :	200		
Outstanding Contract Orders :	55		





Download

Select All

Select All

Contract Order #	Contract Order Line #	Work Order #	Item ID	Item Description	Quantity Ordered	Quantity Receipted	Units	Rate	Total Line Value	Agreed (Vendor)	Supporting Documtenation	Agreed (SWC)	CM Audit Required	Audit Conducted (Desktop) (Y/N)	Audit Conducted (Visual) (Y/N)	CM Comments (* denotes Mandatory)
215156	1	70313724	3	Traffic Control (Weekday Daytime) - 3 Person Crew	8.00	8.00	Hours	$ 124.00	$ 992.00		Attach					
215156	2	70313724	21	Traffic Control Plan - High Complexity	1.00	1.00	Hours	$ 125.00	$ 125.00		Attach					
215169	2	70313739	21	Traffic Control Plan - High Complexity	1.00	1.00	Hours	$ 125.00	$ 125.00		Attach		₧	Y		*
215169	3	70313739	25	Signs / Extras - Variable Message Sign (1930mmx2870mm or equiv)	2.00	2.00	Each	$ 80.00	$ 160.00		Attach		₧	Y		*
215174	1	70313742	4	Traffic Control (Weekday Daytime) - 4 Person Crew	4.00	4.00	Hours	$ 162.00	$ 648.00		Attach		₧	Y		*
215174	5	70313742	29	Signs / Extras - Additional Cones	15.00	15.00	Each	$ 0.10	$ 1.50		Attach		₧	Y	Y	*
215175	1	70313749	31	Miscellaneous	13,590.00	13,590.00	Each	$ 1.00	$ 13,590.00		Attach					
7									$ 15,641.50							

Submit Claim

Endorsed for Payment

Approved for Payment

Peoplesoft/Maximo Integration

General Findings:

- Compromise of specifications to meet all business needs
- Do not duplicate same process in two systems
- Needed to workshop a simpler solution – trying to negotiate individually just didn't work (alignment of goals issue)
- Dealing with change, loss of control and perceived threats of change
- Working with new support providers - they are still understanding our Maximo system while trying to design
- Devil is in the detail

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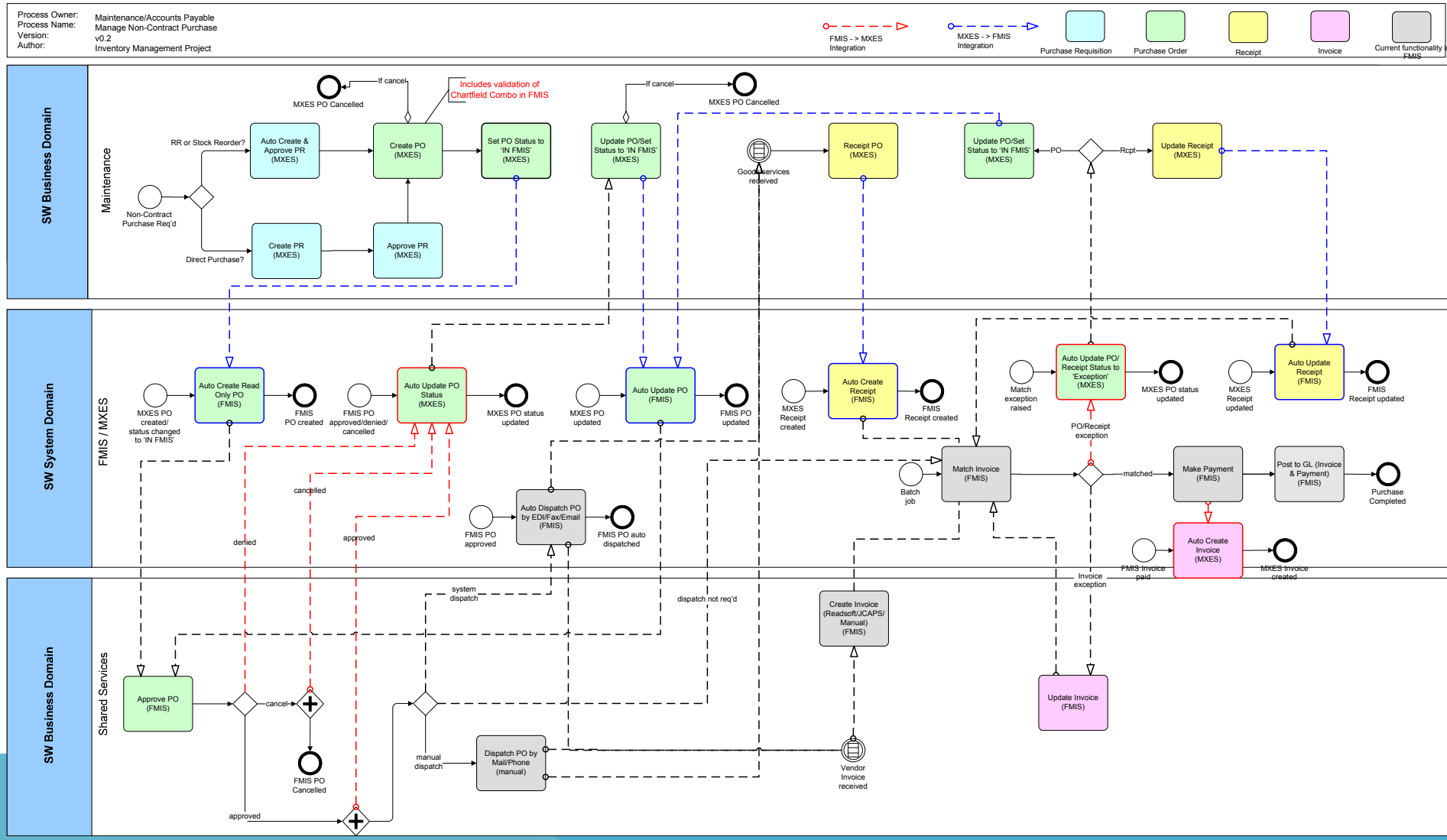
Peoplesoft/Maximo Integration



Challenges of Project

- Project “buy in” (understand the Maintenance business need) as impacts felt across Maintenance, Shared Services and Finance
- Obtaining an agreed solution across the businesses (loss of control)
- Doing it all on shoestring ie. No budget (other than IT); limited staff
- Acceptance of new applications and processes
- Size of the roll out:
  - 500+ maintenance staff;
  - finance and Shared services (50+)
  - Contract staff (40)
  - external contractors – changes to process an contracts (30+)

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Outcomes of Project

- Full Scanning solution to manage inventory movement (materials and tools)
- Standardised work practices across the business – all on the one system being Maximo – you don't want your field force in your Finance system!
- Maximo is primary source of control of materials, tools and contracts
- Maximo to become a full "ticket of work" maintenance management system
- Mobility solution integrated to provide inventory/P&E input
- All service contracts managed in Maximo
- Purchasing through Maximo to avoid double keying

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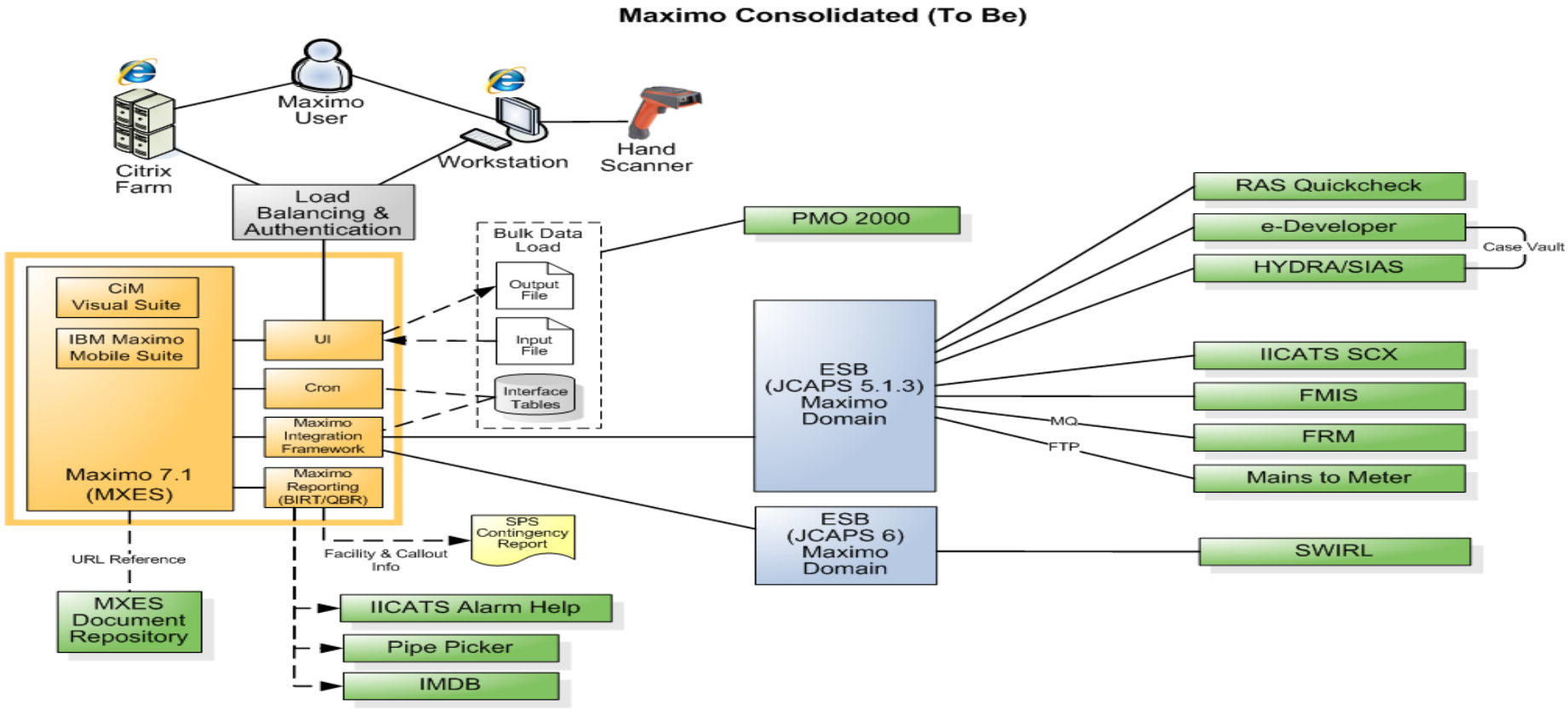
In Summary …

1. Develop strategies for change early
2. Test mobility in the devolved environment
3. Compromise causes complexity
(compromise = complexity = cost)

Questions?

Maximo at Sydney Water (cont.)



As at March 2012