

TECHNOLOGY ROUNDUP:

WAREHOUSE MANAGEMENT SYSTEMS



VENDOR ROUNDUP: WMS



Is a Warehouse Management System Right for Your Multichannel Business?

BY CURT BARRY



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here are a variety of types of systems that provide the warehousing and fulfillment functions in multichannel companies: order management systems (OMS), enterprise-wide systems (ERP) and warehouse management systems (WMS). When does it benefit your company to install a WMS rather than an OMS or ERP?

Two major aspects of managing warehousing are strengths of WMS in general: tracking and management of labor in the warehouse processes and management of the four-walls inventory functions.

These benefits are achieved in the five following ways:

- Full implementation of RF and bar code functions throughout the warehouse processes—from the dock and receiving, quality assurance processes, put away, replenishment from bulk to forward pick areas, picking, pack confirmation, returns, warehouse inventory functions, etc. Bar code allows tracking of inventory, orders, and labor use.
- Integration of WMS to programmable logic controller or warehouse control system (PLC/WCS) to automate power conveyors, sortation and material handling equipment from a wide range of suppliers.
- 3. A wider range of picking options including voice pick, pick to light and put to light, etc.
- 4. Distribution center inventory control functions including min/max, dynamic pick allocation, directed put away, multiple levels of kitting and work orders and cycle counting.



5. Optional modules for trading partner management; optimization of the supply chain, ASNs and EDI; labor management, transportation management, yard management, slotting management, a wide range of shipping/manifesting systems, distributed order management, forecasting and planning, etc.

There are dozens of standalone WMS providers that you can choose from. But we believe that if you're going to consider WMS for your business, you take a risk if it hasn't tailored its system to the requirements of direct-to-consumer or business-to-business.

In this WMS software supplier guide, that criterion became the main filter for inclusion in this article. We excluded many WMS that were not installed in multichannel companies (for ecommerce and catalog fulfillment). Many WMS that had this functionality were also installed in bricks-and-mortar retail stores and whole-sale/distribution centers.

Cloud-based computing has been a real option for some customers of these WMS software vendors. When you choose these systems, however, you always have to weigh the cost of a subscription model over time.

As you go through the data, keep in mind it has come from the vendors. We have done the best we can to catch errors and verify facts with each provider. Use the information to start your broader research and then narrow down the list. Make your selection based on the requirements of your business. Identify the user requirements; write a request for proposal (RFP); send it to a short list of vendors; schedule demonstrations; get final proposals; make site visits and reference checks, and then decide for yourself.

Curt Barry is president of F. Curtis Barry & Company, a multichannel consultancy specializing in warehousing layout and design, systems selection and implementation, benchmarking and cost reduction.



	Company Name	Contact Name	Contact Phone	Contact Email	Web Address	Year Estab- lished	Year Product Introduced	Latest Version	Total Staff	Product Devel- opment Staff	Support Staff
System/Product Name										Jun	
3PLink	Camelot 3PL Software	Andre Vanegas	866-3PL-SOFT	sales@camelotco.com	www.3PLsoftware.com	1984	2002	6.02	25	13	4
AccellosOne Warehouse	HighJump Software	Nick Vanderheyden	719-433-7029	nick.vanderheyden@accellos.com	www.accellos.com	1992	A1 WMS - 2010	6.5	750	17	8
AccellosOne Enterprise 3PL	HighJump Software	Kait Vinson	719-433-7032	kait.vinson@accellos.com	www.accellos.com	1989	1988	4	750	16	7
HighJump Warehouse Advantage	HighJump Software	Kait Vinson	719-433-7032	kait.vinson@accellos.com	www.highjump.com	1983	WMS - 1995, Data Collection - 1983	12.7	750	48	24
ASCTrac	ASC Software	Steve Damm	937-429-1428 x 415	sdamm@ascsoftware.com	www.ascsoftware.com	1989	1991	8.05	18	6	5
Cadence WMS	Cadre Technologies, Inc.	Roger Rountree	303-217-7037	roger.rountree@cadretech.com	www.cadretech.com	2001	2002	4.0.3	35	8	6
CoreIMS	CorePartners, Inc.	Peter Oykhman	301-695-2673 x 104	info@coreims.com	www.coreims.com	2002	2003	3.65	85	15	3
Datex FootPrint WMS	Datex Corp.	Laura Olson	727-400-3641	marmanious@datexcorp.com	www.datexcorp.com	1978	1998	3.7	85	35	17
eBizNET WMS on NetSuite Platform	eBizNET Solutions	Becky Christiansen	908-955-4354	becky.christiansen@ebizscm.com	www.ebizscm.com	1998	2011	eBN WMS 14.1.3	88	36	21
edgEvolution™	E.D.G. Enterprises, Inc	Steve Hunyar	619-445-2740	shunyar@edgent.com	e-warehousing.com	1994	1994	11.2	7	2	2
Exacta	Bastian Solutions	Eric Cameron	502-266-9999	ecameron@bastiansolutions.com	www.bastiansolutions.com/software	1952	1989	5.5	50	13	8
Foxfire WMS	Foxfire	Dustin Caudell	864-868-5243	dustin.caudell@foxfiresoftware.com	www.foxfiresoftware.com	1985	1985	7.3	52	21	4
irms WM	Upp Technology, Inc.	Jim Laverty	630-493-7861	jlaverty@upp.com	www.irms360.com	1984	1985	irms 360 was introduced 1/1/12	172	90	14
Jetstream Warehouse Management	Apptricity Corporation	Sherry M.	214-596-0601	bknotts@apptricity.com	www.apptricity.com	1999	2003	6	90	30	10
KiSoft WMS	KNAPP Logistics	Jerry Johnson	6780-388-2880 x265	jerry.johnson@knapp.com	www.knapp.com	1952	1999	3.10 to be released Q3 2014	2300	120	40
Manhattan Associates WMS and Related Sup- ply Chain Product Suites	Manhattan Associates	Will Haraway	678-597-7466	wharaway@manh.com	www.manh.com	1990	1990	2013	2554	630	401
Master Distribution System MDS	The Systems House, Inc.	Seymour Fertig	973-777-8050x201	sf@tshinc.com	www.tshinc.com	1979	2002	12	15	5	7
NCR WMS	NCR Corporation	Bob Feher	678-808-7898	bob.feher@ncr.com	www.ncr.com	1884	1992	2013	29,000	propriatary	propriatary
RedPrairie WMS	RedPrairie	Chad Trainor	877-733-7724	info@RedPrairie.com	www.RedPrairie.com	1994	1995	2012.1	1600	proprietary	proprietary
R-WMS.net	Robocom Systems International	Rick Register	843-614-8018	rregister@robocom.com	www.robocom.com	1981	2004	2014	Proprietary		
R-WMS	Robocom Systems International	Rick Register	843-614-8018	rregister@robocom.com	www.robocom.com	1981	1993	2012		Proprietary	
StockSmart	Mincron Software Systems	Pam Cuellar	281-999-7010 Ext. 3031	pcuellar@mincron.com	www.mincron.com	1979	1995	1.9	60	12	5
WithoutWire Warehouse	Appolis	Travis Smith	612-343-0404 X101	sales@appolis.com	www.appolis.com	2001	2003	V6	20	9	4
Made4net WarehouseExpert	Made4net	Dan Waters	201.645.4345	sales@made4net.com	www.made4net.us	2005	2006	4.9.50	48	Proprietary	Proprietary
C128Tools, UPCTools, C39Tools, I2of5Tools	Azalea Software, Inc.	Miranda Pinero	(206)336-9575	salesinfo@azalea.com	www.azalea.com	1992	1992	v6 .0	<10	<10	<10
Freedom Series/ec21	Butler Commerce Solutions Inc. (BCS)	John Butler	919-877-5251	John.Butler@bcafreedom.com	www.bcafreedom.com	1985	1985	8	7	3	2
QSSI — PowerHouse/WMS	QSSI -Quality Software Systems, Inc	Robert King	732-805-0400	robking@qssi-wms.com	www.qssi-wms.com	1986	1995	8.85	40	10	25+
Infinity	Butler Commerce Solutions Inc. (BCS)	John Butler	919-877-5251	John.Butler@bcafreedom.com	www.bcafreedom.com	1985	2011	2	7	3	2
Savanna.NET(WMS)	Westfalia Technologies Inc.	Staci Cretu	717-764-1115	scretu@westfaliausa.com	www.WestfaliaUSA.com	1992	1992	3	100	NA	NA
viad@t WM S	viastore systems	Nancy Malone	616-977-3950, ext. 4121	n.malone@viastore.com	www.viastore.com	1889	1991	7.6	400	124	88

Company Info

System/Product Name	Total Installs in all Industries on Current Version	# Installs for eCommerce Clients	# Installs for Catalog Clients	# Installs for Retail Clients	# Installs for Wholesale Clients	# Installs for 3PL Clients	B2C Clients	B2B Clients	License \$ Cost Per User	SaaS transaction or monthly charge	Site License (\$000)	License Fees for Multiple DCs?	Typical Annual \$ Range (\$000)	Times Available	What % of License Cost
3PLink	130		Primary market 3PL which have B2C and B2B clients			130	N/A	N/A	Х	Х				8am-7pm EST; or 24/7	20%
AccellosOne Warehouse	853	350	75	37	700	112	Х	х	Inquire for more information	Inquire for more information	Inquire for more infor- mation	Inquire for more infor- mation	Inquire for more information	24/7	20%
AccellosOne Enterprise 3PL	over 700 facilities	0	0	1	1	Over 700 facilities	X	Х	х	х	Inquire for more infor- mation	Inquire for more infor- mation	Inquire for more information	24/7	20%
HighJump Warehouse Advantage	450 customers	20	10	90	50	48	X	Х	Х	Х				24/7	
ASCTrac									N/A		Licensing options range between \$30k to \$50k for core WMS. Optional modules have additional license fees.	Licensing options range between \$50k to \$90k for core WMS. Optional modules have additional license fees.	\$10k - \$40k	8:00 AM - 7:00 PM standard, 24X7 avail- able as an option	20%
Cadence WMS	50	35	20	5	5	45	na	50	1500		45000	0		6am - 6 pm	20%
CoreIMS	250	40	35	25	45	15	X	Х	Х	Х		Х	\$3	8/5; EST; or 24/7	18%
Datex FootPrint WMS	194	35	22	20	73	53	Χ	Х	\$2,000	\$200/user/month	\$15-\$40		\$50-\$250	24/7	20%
eBizNET WMS on NetSuite Platform	50+						Χ	X	Х	Х	X	Х	\$15-\$30	24/7	24%
edgEvolution™	100	45	20	65	35			Х	Hybrid		X	X	\$4.50	24/5	12%
Exacta	65	27	3	8	9	5	Υ	Y	Hybrid	Monthly for SaaS option	Υ	Y		24/7	18%
Foxfire WMS	83	40		22		15	Χ	X	X	X	X	Х		8-6; M-F EST	20%
irms WM	101	175	175	175	145	165	X	Х	\$995	\$125/user/month	Included	Included		24/7	20%
Jetstream Warehouse Management	8	2	0	3	3	0		Х	Х	Х	X	Х		24/7	20%
KiSoft WMS	170	>20	Info not Available	35	30	22	>20	140	Depends on type and quantity	-	Depends on a number of variables	individual	7.5 to 30	office time (standard), 24x7 (option)	Depends on individual applications
Manhattan Associates WMS and Related Sup- ply Chain Product Suites	29		Many cons	sumer, btob e-comm a	nd direct clients as we	ell as retail, wholesale,	etc.			Contact vendor for pricing	ng			World wide sales and support	
Master Distribution System MDS	50	30	0	0	50	0	30	60	8000/500	300/50	same	no	included	unlimited	18% per year
NCR WMS	100+			30+	75+		30+	75+		F	Please contact NCR for price	ing.		24/7	18%
RedPrairie WMS	15	150+	UNKNOWN	133	17	330	Х	Х				Contact vendor for pricing			
R-WMS.net	6	Totals not a	available	4		1	Х	Х		Contact vendor for pricin	ng				
R-WMS	50	5		8	35	2	Х	Х		Contact vendor for pricing	ng				
StockSmart	36	None	None	None	36	None	None	None	\$1,995	None	\$25,000	Tiered	Private	24 x 7	18%
WithoutWire Warehouse	430	6	6	220	130	2	60	40	X	X	X	X	0-8,000	24x7	18%
Made4net WarehouseExpert		Uı	ndreds of installations i	n various industries ir	ncluding Retail, Wholes	sale, 3PL and more				Prices v	ary. Please contact vendor	for pricing		8am - 5pm EST and 24/7	20%
C128Tools, UPCTools, C39Tools, I2of5Tools	5,000+	NA	NA	3,000+	2,000+	NA	NA	NA	199	NA	695-2,095	NA	0	9am-5pm Mon-Fri	0%
Freedom Series/ec21	17	N/A	17	0	17	1	0	17	N/A	N/a	N/a	N/A	N/A	N/A	N/A
QSSI — PowerHouse/WMS	50+	20+	50+	50+	50+	50+	100+	30	х	\$135/mo per concurrent user Modules = \$35/mo per concurrent user	х			24/7	0.175
Infinity	17	17 N/A 17 0 17 1 0 17								N/a	N/a	N/A	N/A	N/A	N/A
Savanna.NET(WMS)	40	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
viad@t WMS	16 Latest Release 2nd Otr 2014		Many consun	ner, b-to-b, ecommerc	e and direct clients as	well as retail, wholesa	lle, etc.				√	√	Contact Vendor for Pricing	24x7 365 days a year	Contact Vendor for Pricing





	Plat	form and Langı	uage	A	ctive Site	es									
System/ Product Name			Programming Language	Total # Active Supported Sites	# Sites Hosted Option # Sites Saas/Cloud Option		Customer order system (OMS, ERP, eCommerce) names integrated to?	Accounting/Finance systems (might be OMS or ERP) names integrated to?	Bar code vendor names integrated to?	RF Vendor names integrated to?	MHE vendor names integrated to?	PLC/WCS vendor names integrated to?	Shipping system vendor names integrated to?	Personalization (engraving, monogramming, etc.) system vendor names integrated to?	Other Integrations?
3PLink	Windows	SQL	C/SIDE	130	several	10	Plains, MAS90/200, SAP, QuickBooks, Peachtree	MAS90/200, SAP, Quick- Books, Peachtree					Worldship, Ship Manag- er, Proship, Endicia		
AccellosOne Warehouse	Microsoft Windows	Microsoft SQL	C, C#	853	93%	7%	Microsoft Dynamics GP, AX, SL, NAV, Sage 100, 300, 500, X3, SAP Business One, Infor, Net- Suite, Syspro, Acumati- ca, Other	Microsoft Dynamics GP, AX, SL, NAV, Sage 100, 300, 500, X3, SAP Business One, Infor, Net- Suite, Syspro, Acumati- ca, Other	Bartender, Seagull Scientific	Motorola, Intermec, Datalogix, Psion, many more	Materials Automation Toolkit	Inquire for more infor- mation	AccellosOne Ship, Clippership, StarShip, ProShip, Other	Inquire for more infor- mation	RockySoft Demand Plan- ning, SPS Commerce
AccellosOne Enterprise 3PL	Red Hat Linux	Oracle Linux and Microsoft SQL	C, C#, Oracle Forms	Over 700	90%	10%	Microsoft Dynamics AX, GP, NAV and SL Sage 100, 300, 500 SAP Business One Syspro	Microsoft Dynamics AX, GP, NAV and SL Sage 100, 300, 500 SAP Business One Syspro	barcoding is included in the system	Motorola, Intermec, Honeywell	various	various	AccellosOne Ship, Clippership,	various	West Monroe LMS, Kronos Time and Atten- dence, Ramp EDI,
HighJump Warehouse Advantage	Microsoft Windows	Microsoft SQL Server 2008, 2012 & 2014 ORACLE 10g, 11g, 12c	C/C++, C# 1500		95%	5%	Oracle, SAP, Peoplesoft, Microsoft Dynamics, Hybris, Dydacomp, BusinessFlow,	SAP, Oracle, Epicor J.D. Edwards, Microsoft Dynamics AX, Navision, GP NetSuite PeopleSoft	Seagull Scientific, Loft- ware, Nice Label	Intermec, Honeywell, LXE, Motorola, Psion Teklogix	Variety of vendors covering: Conveyors Sortation Pick to Light / Put to Light Pick to Cart Carousels AS/RS Auto DIM Capture Tilt Tray Sorters Print and Apply Labelers Inline Scales/ Palletizers and more	Dematic, Fortna, Forte	Kewill, CLS, ProShip, Agile, Logicor,		Transportation Management Systems (TMS), Point of sale (POS) Systems, Store Planograms, Other integration methods via: Flat File HTTP ODBC SFTP Web Services XML
Appolis	Windows Server, Windows Mobile, iOS	SQL	C#	140	24	3	Dynamics GP, NAV, AX, SL, Infor, Macola, BPICs, BLOCs	Dynamics GP, NAV, AX, SL, Infor, Macola, BPICs, BLOCs	Honeywell, Motorola, Intermec	ALLMotorola, Inter- mec, LXE, Honeywell, Psion Teklogix	various	various	UPS/FedEx International, Starship, Clippership, LTL ABF	various	Various EDI
ASCTrac	Windows	MS SQL	.Net for all core logic & maintence	300+	3	40	SAP, Oracle, Amazon. com, Legacy	Dynamics GP/NAV/AX, MAS 90/200/500, Exact	Motorola/Symbol/Psion, Intermec, Zebra, Sato,	Motorola/Symbol/Psion,	Custom	Allen Bradley, Knapp, generic	ConnectShip, Worldship, Clippership, Flagship,	Custom	Cubiscan
Cadence WMS	Windows Server	MS SQL Server	.Net	50			SPS Commerce, various other front-end systems	Macola, Legacy MS Dynamics GP, SAP, Quickbooks, Oracle	Printronix, Honeywell BarTender	Honeywell, Motorolla		3	Malvern Systems ADSI (Advanced Distribution Systems, Inc.)		
CorelMS	Windows Server 2008 R2, Windows 7, 8	SQL Server 2008 R2, SQL Server 2012	C++	250	15	10	JaggedPeak, OrderLogix	QuickBooks, Sage 50 US, Sage 50 CA, Sage 100, Sage 300	Honeywell, Motorola, Intermec	Symbol, Motorola, Intermec			UPS Worldship, USPS Endicia		B2B Gateway, various shopping carts
Datex FootPrint WMS	Windows	SQL	C++	140	15	10	Sage products, MS Dynamicsproducts, SAP, Simply Accounting, Quickbooks, Epicor, Com- mon eCommerce sites	Sage products, MS Dynamicsproducts, SAP, Simply Accounting, Quickbooks, Epicor	Motorola, Intermec, LXE, PsionTeklogix,Honeywell	Cisco, Motorola		Pick to light, Voice	Connectship, Proship, FedEx, UPS, USPS		
eBizNET WMS	NetSuite Platform	NetSuite Platform	NetSuite Platform	50+	N/A	50+	NetSuite	NetSuite	Many	Many	eBizNET can provide integration support for these systems.		FedEx, UPS, Pitney Bowes, CASI, iPARCEL, UPS, USPS, Canada Post, Purolator, TNT Express, TMS, OTM, etc		Cubiscan, Bartender
edgEvolution™	Windows	SQL	C++' PB; .NET	100+			Numerous Client Systems	Numerous Client Systems	Barcode.com, Barcode Planet, ScanSource	Symbol, Motorola, Intermec	White; Remstar; Hanel; Diamond; FMC; Intel- liflex; Hytrol; Rapistan; etc	Custom	NextShip	Custom	Various integrations with many other systems. We specialize in Warehous Automation.
Exacta	Windows	SQL/Oracle	C++/C#/.NET	95		3		SAP, Microsoft Dynamics AX, Microsoft Dynamics GP, People Soft, Lawson ,CODIS, homegrown systems	Bartender	Motorola, Honeywell, Intermec	Opex, Dematic, Intelli- grated, Hytrol (Bastian), SencorpWhite, Kardex Remstar, Daifuku, Sage, Swisslog, Zebra	Exacta WCS	ConnectShip, ProShip, ScanData		Datria, Appolis
Foxfire WMS	Windows	MS SQL Server	Delphi	83	2	10	Several	Several	Bartender	Symbol, Motorola, Intermec	Lightning Pick		ADSI, UPS		
irms WM	Windows Server OS	SQL, Oracle, DB2	ASP.Net, C#	550	41	22	JD Edwards, Oracle, PeopleSoft, MS Dynam- ics, Syspro, ROI, Sym- parell, Infor, SAP, Epicor, OAD, Sage, Plus 64 Home Grown Systems	Oracle Financials, MS Great Plains, MS AX, MS NAV, Peach Tree, Quick Books, Sage, Solomon	irms WM has its own barcode system, have also integrated into BarTender	Symbol, Motorola, Inter- mec, Psion, Honeywell	Dematic, Kim Controls, Dove Tree, SSI-Scha- fer, Remstar, White, Interlake	Fortna, Intelligrated, Dematic, QCS, Kiva, Wynright, Dove Tree,	Connectship, Kewill, Pitney Bose, Integgris, Best Way		Cubiscan
Jetstream Warehouse Management	Solaris, Unix, AIX, Windows, Linux, AS/400	Oracle, DB2, SQL Server, Sybase	Java	8	6	2	SAP, PeopleSoft, Oracle, Great Plains	SAP, PeopleSoft, Oracle, Great Plains All Motorola		Motorola			UPS, FedEx		
KiSoft WMS	Linux, Windows	Oracle	Java, C/C++, C#, PL/SQL	165	0	0	SAP ERP, Microsoft Dynamics (Navision/Ax- apta), INFOR LN, Oracle e-Business Suite, Oracle DJ Edwards Enterpris- eOne	SAP ERP, Microsoft Dynamics (Navision/Ax- apta), INFOR LN, Oracle e-Business Suite, Oracle DJ Edwards Enterpris- eOne	Info not available Motorola, Honeywell, LXE, Intermec, Psion, Datalogic, Dlog		KNAPP, Dematic, SSI Schaefer, Vanderlande, TGW, LTW, Schwing- shandl KNAPP, Dematic, Klinkhammer, SSI Schae fer, Autark		AEB Assist4, Heidler, V-LOG	No	Combit List & Label, Jas- perSoft Jasper Reports, QlikTech QlikView, Vocol- lect, Topsystem
Mincron - StockSmart	iOS Note to MCM spread these across Data	DB2	RPGILE	36	0	0	SmartDistributor	SmartDistributor	T.L. Ashford	Any	None	None	Varsity	None	EDI - ANX
Manhattan Associates WMS and Related Supply Chain Product Suites	Base and Programming columns: Manhattan's solutions operate across Unix, IBM System i, Linux, Microsoft.NET computing platforms and hardware systems.			Proprietary	Х		Many legacy and com- mercial systems OMS, ERP, CRM, e-business, mobile based commerce systems	Many legacy and com- mercial systems	several	several	wide variety	wide variety	wide variety	wide variety	
Made4net WarehouseExpert	Windows	MS SQL	.Net	Proprietary	Proprietary	Proprietary	SAP (R/3, B1) , Oracle, MS Dynamics, I-Trade, IFS and many other legacy systems	SAP (R/3, B1) , Oracle, QB, MS Dynamics, IFS and many other legacy systems	Bartender	Motorola, Intermec, Honeywell, Psion Teklogix, Datalogic and more	Various	Various, and we have our own WCS	Worldship, Connectship, Precision, Mercury Gate and more		Cubiscan, Voice Picking, TMS
Master Distribution System MDS	Windows/Unix/Liniux	Universe	Basic/SQL/C++	150	100	50	MDS ERP, and has been interfaced to other major ERP systems such as Lawson	MDS Financial Modules as well as to many legacy and commercial systems	BarTender, Label Vision, Label Matrix, MDS Warehouse is compat- ible with most barcode software	Warehouse Hardware Integration — Carousels, picking machines , VTL , Voice Directed picking with Diamond Phoenix			Fed EX, UPS and many others		Cubiscan
NCR WMS	OS400, UNIX, Windows	DB2, SQL Server	RPG, Java	125+	N/A	N/A	Generic interface that works with any ERP system (SAP, JDA, JD Edwards)		Printronix, Zebra, Motorola, Intermex, LXE	Motorola, LXE, Inter- mec, Honeywell	Dematic, custom	Pickrite, Dematic, custom			custom Cubiscan, In-Line
PowerHouse/WMS	Windows	SQL	PowerBuilder, Java, C++	300+		10	NetSuite, Great Plains, Sage, SAP, BottleSoft, Amazon, eBay, Magento, Shopify and many others	Sage, Great Plains, SAP, Peachtree, NetSuite, QuickBooks and many others	BarTender, Label Vision, Label Matrix, Power- House is compatible with most barcode software	PsionTeklogix, Motorola, Intermec, capatible with all mobile RF data collection device	Numina, WEPCO, Rap- istan Demag, Hytrol and many other materials handling solutions	PowerHouse provides a WCS and integration options to support most PLC solutions	Shiplynx, Clippership, UPS, Fedx		Cubiscan, In-Line Scales, Print and Apply Labeling, MRP, Time & Attendance, Signature Capture,
RedPrairie WMS	Unix, Linux, Windows	SQL, Oracle, DB2	Java	1300+	280	170	Virtually all legacy applications	Virtually all legacy applications	N/A	Motorola, Honeywell, Intermec	over 2 dozen vendors	numerous	RedPrairie plus numerous major TMS applications	N/A	
R-WMS.net	Windows	SQL	C#, VB	10	1	1	Assist, Elan, Cispub, Unison	Lawson	Bartender	Symbol, Motorola, Intermec, LXE	HK, Many Print and Apply	НК	WorldShip, PowerShip, Clippership, Nexxio		EDI
R-WMS	Windows/Unix	SQL	Progress	35	1		Oracle, Baan, SAP, many others including home grown	Oracle, Baan, SAP and others	Labelview	Symbol, Motorola, Intermec, LXE	HK, Fortna, Accusort, AIMS and others	Dematic, Hanel and others	WorldShip, PowerShip		EDI
Savanna.NET®	Microsoft C#, .NET	SQL-server, Oracle	C#, .NET	47	NA	NA	NA NetSuite, Great Plains,	NA Sage, Great Plains, SAP,	NA BarTender, Label Vision,	NA PsionTeklogix, Motorola,	NA Numina, WEPCO, Rap-	NA PowerHouse provides	NA	NA	NA
QSSI - PowerHouse/WMS, FastTrack, PowerHouse/TMS, ePowerHouse	Windows	SQL	PowerBuilder, Java, C++	300+		10	Sage, SAP, BottleSoft, Amazon, eBay, Magento, Shopify and many others	Peachtree, NetSuite, QuickBooks and many others	Label Matrix, Power- House is compatible with most barcode software	Intermec, capatible with all mobile RF data collection device	istan Demag, Hytrol and many other materials handling solutions	a WCS and integration options to support most PLC solutions	Shiplynx, Clippership, UPS, Fedx	General Electric & Custom 3rd party solutions	
FreedomSeries/ Infinity	OS/400	DB400	RPGILE	13	1	3	N/A SAP, JDA, Oracle / JD	N/A SAP, Oracle/ JD	N/A	N/A	N/A	N/A	N/A	N/A	
viad@tWMS	Windows, AIX, Linux, Red Hat	Oracle, MS SQL, DB2	C++	400+	Available	Available	Edwards, SAP Business One, Lawson, Infor, QAD, BAAN, Microsoft Dynamics, ProAlfa, 1C Company, Movex, PSIPENTA, Numerous Legacy systems	Edwards, SAP Business One, Lawson, Infor, QAD, BAAN, Microsoft Dynamics, ProAlfa, 1C Company, QuickBooks, Movex, PSIPENTA, Numerous Legacy systems	Bar code functionality provided as part of our WMS solution	Intermec, Motorola, Honeywell, LXE, various others	viastore ASRS, Dematic/ Rapistan, HK Systems, Hytrol, Hänel, Remstar, TGW, KNAPP, various others	viad@tWCS, Siemens, Allen Bradley	Clippership, Kewill, Heidler, Bizebra		Cubiscan, LogoPak, IN- FORM, AutoTime, Zebra, In-Line Scales, Print and Apply Labeling, MRP
WithoutWire Warehouse	Windows Server, Windows Azure	Microsoft SQL Server, Azure DB	C#, SQL	430	24	5	i95, Magento	Microsoft Dynamics NAV, GP, SL, SAP, Infor, DMSI	N/A	iPAD, iPhone, iTouch, Android, Motorola, Intermec, HHP, IPC, SocketMobile	N/A	N/A	FedEx, UPS, ABF, Open Shipping API	N/A	WEMM, Red Tail, Exacta



	Core Functionality												Inve							Optio	nal M	lodules				
System/ Product Name	Advanced Shipping Notice	Receiving	Crossdock Quality Assurance	Value-Add Services (I.e. Gift Wrap, Monogramming, Kitting, WIP, etc.) List All	way —		e	System Slotting	FIFO, LIFO, guided picking, wave picking,	Small Package Carriers (List All)	LTL/TL Shipping	Returns	Support Multiple Warehouses	Areas for Use of Barcode (List All)	Areas for RF Use (List All) Lest All)	Min/Max	Lot # Control	Dynamic Allocation Cycle Counting	Physical Inventory	Yard Management	Slotting	Labor management	Cartonization	Inbound Transportation/Scheduling	Inventory Forecasting	Clist All) EDI, eComm fulfillment, work flow, web
3PLink	Х	X	X X	assembly,		X 7	X 7	X	pick by: code date, lot, bin qty, location, etc.	FedEx, UPS, USPS FedEx (Express, Ground, Smart-	X	X	X	Receiving, Returns, shipping (Everything), unloading, checking	packing Unloading trailers, check inbound in-	X	X	X X	X	X x* Dock	X	X	X	X		portal for 3PL clients, doc mngt, and a full TMS Billing and invoicing, value added services,
AccellosOne Enterprise 3PL		Х	x x	Х	х	x :	х		case or piece picking, pick to carton/box, zone picking, wave picking, pick to cart (multiple orders),	Post), UPS (Express, Ground, Freight), USPS, DHL (Express, GlobalMail, Loomis), Canada Post, Purolator, Canpar, Spee- Dee, On-Trac, Newgistics)	Х	X	X	inbound, putaway, pick, pack, ship, audits, cycle count, physical inventory, value added services, relocating-mov- ing product location, placing product on hold, removing product from hold	ventory, putaway, pick, check - audit outbound shipments, load trailers, cycle count, phsycial inventory, forklift safety check list, value added services, relocating product	х	Х	x x	х	Sched- uling and Yard Visibility		X	Х	х		dock door scheduling, pallet management, customer service, document management and electronic filing, inspections, document imaging, e-elearning videos, customer P&L
HighJump Warehouse Advantage	Х	X	x x	X	X	X Z	x .	Х	Bulk Pick by Load, Order Picking, Batch Picking by Order, Batch Picking by Container, Pick/Pass by Order, Label Picking—Confirm by Label, Warehouse Transfer Out/Blind Transfer Out	Via parcel shipping solution: DHL Worldwide Express Federal Express (FedEx) TNT Express United Parcel Service (UPS) USPS	* Through Partner	Х	X	areas such as receiving, putaway, replenishment, picking, packing, shipping/manifesting, returns, cycle counts, value-add functions and labor tracking, individual products; and on cartons or pallets, etc.	areas such as receiving, putaway, replenishment, picking, packing, shipping/manifesting, returns, cycle counts, value-add functions and labor tracking, etc.	Х	Х	x x	Х	X	X	Х	Х	Х		Performance Management, Voice, Supplier Portal, Billing Management, Manufactur- ing Execution,
AccellosOne Warehouse Management System	t	х	х х	Kitting, WIP, Custom Shipping Labels, GS1 Labels, UCC128 Labels	х	x	x	x	Batch, Wave, Zone, Each, Case, Carton, Many More	FedEx (Express, Ground, Smart- Post), UPS (Express, Ground, Freight), USPS, DHL (Express, GlobalMail, Loomis), Canada Post, Purolator, Canpar, Spee- Dee, On-Trac, Newgistics)	х	х	х	All Areas	All Areas	х	х	x x	х	x* Dock Sched- uling and Yard Visibility	х		х	х	* Through Partner	Business Intelligence, eLearning, Directed Putaway, Expiry Management, Order Management, Order Consolidation, Advanced Receiving, License Plates, Kitting, Cartonization, Inspection, Scheduling, ASN Management, Repackaging, Advanced Allocation, Advanced Replenishment, Document Imaging, Advanced Lots, Voice Picking, EOL Workflow, Multi-Company, Bar Code Labels, Screen Designer, Client Visibility, 3PL (Activity Capture and Audit, Revenue Rating Engine, Configurable Billing, Advanced Reporting)
AccellosOne Warehouse Management System	Х	X	X	Inspection, Kitting, Labeling, Price Ticketing Re-configuration	, X	x :	x :	x	Wave Pick, Pick to Cart, Tote Pick, Order Pick, Voice Pick, Pick to Light	FedEx, UPS, USPS, Can Post, LTL carriers	Х	Х	Х	Inbound, Outbound, Inventory Control (whole warehouse)	Inbound, Outbound, Inventory Control (whole warehouse)	X	X	X X	X		X	Х	Х	Х		Supply Chain Intelligence, Dock Sched- uling, Parcel/LTL Shipping, Inspections, Wave Management, Document/Image Management, EDI
ASCTrac Cadence WMS	X	X	X X	Kitting, Manufacturing, WIP, Print on Demand, Anything can be setup a a non-stock item and fee associated with it.	s X	x :	x :	x	Voice Picking, Pick to Light, Carousel Picking, Wave Picking, Batch Picking, Zone Picking, Pick to Multi-Bin Cart, Pick to Container, Pick & Pass, Load Groups, Pal- let/Case/Each Picking, Pick by Customer, Hybrids of above	All Major Carriers X	X	X	X	Receiving, Returns, QC, Put-Away, Production Picking, Production Receiving, Kitting, Customer Order Picking, Packing, Shipping X	Receiving, Returns, QC, Put-Away, Production Picking, Production Receiving, Kitting, Customer Order Picking, Packing, Shipping	X	X	X X	X	X	X	Х	X	X	X	Many options including eCommerce, 3PL Billing, Manufacturing Work Orders and MRP, Shop Floor, Purchase Orders, Direct Store Delivery, Container Asset Tracking, Export Documents X
Butler Commerce Solutions -Freedom Series/	X	Х	хх	Kitting, implementa- tion, training, support, customization.	Х	x :	x :	X	we have 8 different picking methodologies	UPS, FedEx	Х	Х	Х	Receiving, Putaway, Pick, Pack and ship, Inventory Counts	Receiving, Putaway, Pick, Pack and ship, Inventory Counts	Х	Х	x x	Х	X	Х	Х	Х	Х	Х	N/A
ec21 CorelMS	Х	X	X	Kitting		X .	x :	х	Batch, FIFO, LIFO, Exp. Date, Wave Picking	FedEx, UPS, USPS, DHL	X	X	X	Receiving, Shipping, Moving, FPR, Kitting, Returns, Packing	Receiving, Shipping, Moving, FPR, Kitting, Returns	X	X	X	X				Х	X	Х	3PL Billing, Auto Allocation, Import/Export, EDI Integration, Application Program Interface (API)
Datex FootPrint WMS	Х	X	X X	Kitting, Assembly, Packaging, Gift Wrap (can use UDFs to create an infinite number of value added services for which clients can be billed according to contracts)	X	x .	x Z	X	wave, batch, cluster, pick to light, single order pick, zone picking	FedEx, UPS, USPS	X	X	X	Receiving, Returns, Putaway, picking, loading, movements	Receiving, putaway, moves, physical inventory, cycle counting, picking, loading, accessorial charges, ship confirmation, inquiry	X	X	X X	X	X	X	Х	X	X	X	Light Manufacturing, Procurement, Order Management, Executive Dashboard, ePortal, Cartonization
eBizNET WMS	X	Х	x x	Kitting, Work Orders, Packaging, Compo- nent Picking for Raw Materials,	X	X Z	×	X	Basic Order Picking; Batch Picking; Cluster Picking; Zone Picking; (all thru wave management);	FedEx, UPS, USPS, iParcel, Canada Post, Purolator	Х	Х	Х	All warehouse operations - including Inbound Purchase Order Check-in, Putaway, Inventory Cycle Counting, Outbound order processing	All warehouse operations - including Inbound Purchase Order Check-in, Putaway, Inventory Cycle Counting, Outbound order processing	Х	X	X X	X	X	X	His- torical Metrics and pending tasks view- able through dash- board.	Х	X		Warehouse Management System on NetSuite Platform
edgEvolution™	X	X	X	Kitting, WIP, Mainte- nance, Inspection	X	x Z	x Z	X	Carousels; Pick to Light; Static Pick Static Pass to Dynamic Pick to Dynamic Pass; etc	FedEx, UPS, USPS, DHL	X	X	X	Receiving, Allocation, Picking, Counting, Replenishment; Deplenishment; Picking; Kitting: QC/Pack; Shipping; Inspection; etc	Receiving, Allocation, Picking, Counting, Replenishment; Deplenishment; Picking; Kitting: QC/Pack; Shipping; Inspection; etc	X	Lot and Serial Number Control; FIFO; LIFO; Expired Parts Mgmt	x x	X	X		Х	X	X		
Exacta	Х	Х	х х	Kitting, Special Pack- aging	X	x :	x :		Pick & Pass, Parallel Pick, Wave, batch and Full case in a variety of technologies (RF, voice, PTL, etc.)	Connectship TMS	Con- nectship TMS	Х	Х	Х	Receiving, stocking, picking, ship- ping, pallet built, consolidation, cycle counting	Х	Х	x x	X		Х	Х	Х			Warehouse Control System w/ interface to Lights, Voice, Conveyor, Sorters, and Goods to Man technologies
Foxfire WMS	Х	X	X	Kitting, WIP Advanced QC & Lot Con-	^	X 2	X 2	X	Paper, Batch, Pick To Light, Piece, Case Directed Picking, Random Picking, Pick to	(FedEx, UPS, USPS, LTL) Through ADSI	X	Х	Х	Receiving, Putaway, Picking, Shipping	Receiving, Putaway, Picking, Shipping	Х	X	X	X		Х	Х	X			
irms WM	Х	X	X X	trol, Kitting, Yard Mgt, Labor Mgt, Advanced Analytics & Dashboards		X 2	X 2	X	Light, Pick to Carosousel, Pick to tote, Pick to cart, RFID, Pick to carton,	FedEx, UPS, USPS, DHL	X	X	Х	Receiving, Returns, Putaway, Pick, Pack, Ship, Kitting	Receiving, Returns, Putaway, Pick, Pack, Ship, Kitting	Х	X	X	X	X	Х	Х	X	Х	X	Advanced Analytics, Alerts, Recall, Asset Management,
Jetstream Warehouse Management	Х	X	ХХ		Х	X 2	x :	Х	Price Picking, Case Picking, Pallet Picking	UPS, FedEx		Х	Х	Receiving, Returns	Receiving	Х	Х	Х	X	X	Х	V	Х	Х	Х	Work Order Management, Asset Management
KiSoft WMS	X Man-	X	X X	X	X	X 2	x :	X	RF, Voice, Electronic Pick List, Fully Automated (Central Belt Systems, Robot Systems), Goods-to-Person			Х	Х	Locations, Articles, Loading Units (Storage and Dispatch), Printed Documents	Receiving, Putaway, Replenishment, Picking, Transport, Order Consolida- tion, Truck Loading, Cycle Count,	Х	X	X	X			(KiSoft WFM)	Х		Man-	KiSoft Track&Trace, KiSoft MIS
Manhattan Associates WMS and Related Supply Chain Product Suites	hattan's Scope ™ Supply Chain Op- timization; Manhat- tan's Scale ™; Trading Partner Manage- ment	X	x x	All these functions and more	X	x 2	x .		Wide variety of convention pick methods and more advanced pick methods including pick to cart, zone, voice, pick and put to light thru integrators, etc.	Major small package carriers	Х	X	X	All aspects of warehouse processes including receiving, marking, put away, replenishment, picking, pack confirm, shipping, returns, inventory cycle counting, etc.	Full function RF for bar code applications listed	X	X	X X	X	X	X	Х	X	X	hattan's Planning and Fore- casting and Vendor Man- aged Inven- tory;	Manhattan's Distributed Order Manage- ment ™; Manhattan's Scale ™ Supply Chain Architected for Logistics Execution; Manhattan's More ™ Optimized platforms
Made4net Ware- houseExpert	$\sqrt{}$	V	√	Kitting, WIP, Labeling, VAS and other activities are configurable	√	√ .	√	√	by order, item, route, zone, cluster	FEDEX, UPS, USPS	√	√	√	√	receiving, putaway, picking, packing, loading, replenishment, counting, yard management	√	V	√ √	√	√	√	√	√	V	$\sqrt{}$	Dashboards, Billing, CustomerPortal for 3PL, Appointment and Dock scheduling, Dynamic Route planning and Proof Of Delivery
Master Distribution System MDS	X	Х	ХХ	kitting, WIP, light assembly,	Х	x :	x ;		Variety of methods: Case, order, lot, serial, pick to cart, wave, voice, carousels, etc.	Fed EX, UPS, USPS	Х	Х	Х	Receiving, Picking, Returns	N/A	Х	X	x X	Х	Х	Х	X	Х		X	Remote Net/E-commerce, Package Tracking, Pedigree, Wireless Warehouse, Document Management
NCR WMS	X	Х	х х	Kitting, light assembly, traceability, reverse logistics	Х	X .	x .	х	Voice, RF, Label		X	Х	X	All warehouse operations: receiving, put-away, picking, cycle counting, order verification, replenishment, ship- ping, packing, returns processing	All warehouse operations: receiving, put-away, picking, cycle counting, order verification, replenishment, shipping, packing, returns processing	X	X	x	Х	Х	X	X	Х	Х	X	Labor Productivity
RedPrairie WMS	Х	X	х х	User-Configurable Services	Х	X .	x 2		By any unit of measure, by order, bulk, cluster, zone, pick & pass, list pick, paper, RF, Voice	FedEx, UPS, USPS, TNT, DHL, ATS, LSI, Purolator	Х	Х	Х	All Functions	All Functions	Х	Х	х	Х	Х	Х	Х	Х	Х		
R-WMS.net	X	X	х х	Yes	Х	X 2	X Z	х	Pick to Box, Pick and Pass, Zone Picking, Pick to Cart, Pre-Cubing, Case Picking, Pallet Picking, Bulk Picking	FedEx, UPS, USPS	Х	Х	Х	Receiving, Putaway, Replenish, Pick, Pack, Ship, Returns, Cycle Count	Receiving, Putaway, Replenish, Pick, Pack, Ship, Returns, Cycle Count	Х	Х	X X	X	Х	Х	Х	Х	Х		Third Party Billing
R-WMS	X	X	ХХ	Yes	Х	X .	X .	Х	Pick to Box, Pick and Pass, Zone Picking, Pick to Cart, Case Picking, Pallet Picking, Bulk Picking, Waves	FedEx, UPS, USPS	X	Х	Х	Receiving, Putaway, Replenish, Pick, Pack, Ship, Returns, Cycle Count	Receiving, Putaway, Replenish, Pick, Pack, Ship, Returns, Cycle Count, Re-Warehousing	Х	Х	X X	X	Х	Х	Х	Х	X		Toolkit Configuration Utility
StockSmart	Χ	X	X X		X	x 2	× 2	×	Order Zone Pick and Pass Pick and Pass Group Cluster Batch Wave Zone Emtergency Order LTD Transfer to Branch TL Scheduled Multidrop Vendor Return	ANY - User Defined	Х	X	X	ALL	ALL	Х	Х	X	X	X	X	Х		Х		
viad@tWMS	V	√	V V	V	V	√ ·	√ .	√	RF, Paper, wave, batch, single order, cluster, Pick/Put-to-Light, Goods to Person, voice picking, wave picking, batch picking, zone picking, pick to multi-bin cart, pick to container, pick & pass, pallet/case/each picking, pick by customer, hybrids of above	UPS, FDX, USPS	V	 √	√	All operations in warehouse and inventory functions	All warehouse and inventory functions. All functions also offered via paper.	√	V	√ √	V		√	V	√			viad@tVISU — (Operations Visibility), viad@tMFC (Ware- house Control)
WithoutWire Warehouse	X	X	х х		Х	X 2	X		Batch, Wave, Single, Zone, Load Distribution, Pick and Pass, FIFO, LIFO, FEFO, tote picks	UPS, FedEx	Х	Х	Х	ALL	ALL	Х	X	x x	X				3rd Party	3rd Party	X	Manufacturing Execution, Kitting, Job Based, Jobless MFG, EDI Support, Product Transformations
Butler Commerce Solutions - Infinity	X	X	х х	Kitting, implementa- tion, training, support, customization,	X	X .	X .	Х	we have 8 different picking methodologies	UPS, FedEx	Х	Х	Х	Receiving, Putaway, Pick, Pack and ship, Inventory Counts	Receiving, Putaway, Pick, Pack and ship, Inventory Counts	Х	Х	X X	X	X	Х	X	Х	Х	Х	N/A
Savanna.NET®	Х	Х	X X	Kitting, WIP	X	X 2	X 2	Х	RF, voice directed, pick to light, pick by label, automated layer and case	na	Х	Х	X	Infeed, product tracking, outfeed, shipping	Infeed, product tracking, outfeed, shipping	X	Χ	X	Х	Χ	Х	NA	NA	Х	Χ	NA