Don’t Forget the “Software”
Don’t Forget About the “Software”
Topics to be Covered

- Why should I care about the “software”?
- What does it mean when we talk about the “Software”?
- Let’s Review: IT Definitions and Terms
- Evolution of Dematic Software: A Holistic Solution Approach
- Dematic Applications: Roadmap and Support Lifecycle
- Dematic Software Lifecycle: Understanding the Typical Upgrades
- What should I be doing to maintain the “software”?
- What services can Dematic provide for the “software”?
- What questions do you still have?
Why Should I Care?

Cost of Downtime

How much does an hour of downtime cost?

A. Less than $25,000
B. $25,001 to $49,999
C. $50,000 to $99,999
D. $>100,000

Unplanned downtime is like …
Why Should I Care?
Impact of “Software” on Downtime

Our industry, as compared to other industries, has higher:

- Number of outages per year
- Cost of downtime
- Time to recover

Source: 2015 Dematic Business Continuity Insights Survey
Why Should I Care?
The “Software” belongs to …

You!

Customer

Equipment List
- Server Hardware
- Dematic Application
- 3rd Party Software
- Backup Device

X John Smith
What does it mean?
Defining the term “Software” … Then

Application
- Computer program designed to perform specific tasks and functions
- Examples: Dematic iQ, SortDirector, MS Word

Operating System
- Software that controls the hardware so users and applications can use it
- Examples: Windows, Linux, Mac OS

Server
- Physical hardware that supports the software that runs on it
- Examples: Dell, Compaq, HP, IBM
What does it mean?
Defining the term “Software” … And Now

**Application**
- Computer program designed to perform specific tasks and functions
- Examples: Dematic iQ, SortDirector, MS Word

**Database**
- Information organized in a structured format to be easily accessed by a software program
- Examples: Oracle, SQL Server

**Operating System**
- Software that controls the hardware so users and applications can use it
- Examples: Windows, Linux, Mac OS

**Virtual Server**
- A partitioned container that operates within a hypervisor and shares the resources of a physical host server
- Examples: VMWare, Hyper-V, everRun

**Server**
- Physical hardware that supports the software that runs on it
- Examples: Dell, HP, IBM

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We Optimize Your Supply Chain

DEMATIC - CONFIDENTIAL
Definitions and Terms
Virtualization

1) Host – Physical server assigned to support the virtual environment
2) Hypervisor – Streamlined operating system like application that controls or manages the hardware resources
3) Virtual Machine – Server(s) that runs inside of or on top of the virtualization layer
Definitions and Terms
Physical to Virtual Conversion

Physical to Virtual Conversion
Business Continuity – Describes the processes and procedures for dealing not just with catastrophic events, but more predictable events like power outages, computer viruses, or human error.

Examples include:
- VMWare or Windows Cluster
- UPS for your Server Room
- Maintaining an offsite copy of critical server images
- Diesel generator to supply emergency power to the DC
Definitions and Terms

High Availability

1) Cluster – Servers that are managed together by the virtualization layer

2) High Availability – Provides failover protection, manual or automatic, against hardware and OS failures
Definitions and Terms
Fault Tolerance

1) Fault Tolerance – *Ability of a cluster to handle faults without interrupting the availability of the virtual server*

2) RPO (Recovery Point Objective) – *Amount of data that has to be recovered following a failure*

3) RTO (Recovery Time Objective) – *Time to fully recover from an unplanned outage*
Evolution at Dematic
A Holistic Solution Approach

From advanced controls and data communications supporting highly configurable systems to predictive maintenance … underpinning all of this is software.

Dematic Software Roadmap
From Many to One …

“A Smorgasbord of Stuff”

DCDirector
ProX4
DAI

HK-EMS
HK-WMS
OFS (AP)
PickDirector (NA-3)
PickDirector Express (NA)
PTLManager (DE)
StagingDirector (NA)
PBVManager (DE)
PickDirector (AP)
SortDirector (NA)
PBVManager (FR)
ResourceDirector (NA)
AMS (NA)
SystemManager (NA)
LightPick (FR)
V-Pack (NA)
VoiceLink
PerformanceManager (NA)

Director Platform

DC Director

Director IT

FY14 – FY16

Dematic Suite

FY16 ++

Where we come from …
# Dematic Software
## Review of Retired Products

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Bulletin Number</th>
<th>Description / Link to Bulletin in PMC</th>
<th>Distribution Date</th>
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<tbody>
<tr>
<td>MDB/RapidMAINT</td>
<td>474</td>
<td>MDB and RapidMAINT End of Life</td>
<td>6/30/2014</td>
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<tr>
<td>TAAAS</td>
<td>492</td>
<td>TAAAS Software End-of-Life</td>
<td>7/30/2014</td>
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<td>BAAAM</td>
<td>493</td>
<td>BAAAM Software End-of-Life</td>
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<td>RapidMerge</td>
<td>494</td>
<td>RapidMerge Software End-of-Life</td>
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<td>RapidCheck</td>
<td>495</td>
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<td>LAMS</td>
<td>496</td>
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<td>DAS</td>
<td>497</td>
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<td>WICS</td>
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<td>OMS</td>
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<td>RapidWave</td>
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<td>RapidView</td>
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<td>GSM</td>
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<td>GSM Software End-of-Life</td>
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<tr>
<td>RapidPick, RapidPick2</td>
<td>503</td>
<td>RapidPick, RapidPick2 Software End-of-Life</td>
<td>7/30/2014</td>
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<tr>
<td>TRACE</td>
<td>504</td>
<td>TRACE Software End-of-Life</td>
<td>7/30/2014</td>
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<tr>
<td>PickDirector versions up to 3.2</td>
<td>555</td>
<td>PickDirector 1.0 to 3.2 Transitioning to Retired Status</td>
<td>10/19/2015</td>
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<tr>
<td>SortDirector versions up to 5.3</td>
<td>556</td>
<td>SortDirector 0.9 to 5.3 Transitioning to Retired Status</td>
<td>12/1/2015</td>
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<td>Dispatch</td>
<td>569</td>
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<td>7/14/2015</td>
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<td>Performance Manager</td>
<td>599</td>
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<td>12/1/2015</td>
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<tr>
<td>RapidRoute</td>
<td>473 – A</td>
<td>RapidRoute Transitioning to Support Only Status</td>
<td>1/08/2016</td>
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<tr>
<td>BevPro</td>
<td>473 – B</td>
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### Dematic Software
#### Software Product Lifecycle

<table>
<thead>
<tr>
<th>Product State</th>
<th>Sell It?</th>
<th>Modifications Allowed?</th>
<th>Support Available?</th>
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</thead>
<tbody>
<tr>
<td>Commercially Available</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Retired</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Support Only</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>End-of-Life</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

- **Commercially Available**: 18 Months
- **Retired Support Only**: 42 Months
- **End of Life**: 60 Months

We Optimize Your Supply Chain
Dematic Software Solution
Lifecycle of your Dematic Software … Then

Go Live

10 Years

Application

Operating System (and DB)

Hardware

Platform Upgrade (including OS, DB, and Hardware)

Full Upgrade (Application, OS, DB, and Hardware)
Dematic Software Solution
Lifecycle of your Dematic Software … and Now

Go Live

10 Years

Application

Operating System (and DB)

Operating System (and DB)

Virtual Server

Hardware

Hardware

Platform Upgrade (OS and DB)

Hardware Upgrade (Hardware Only)

Full Upgrade (Application, OS, and DB)

We Optimize Your Supply Chain
Why Should I Care?
Impact of “Software” on Downtime

IT-related Failures as a Cause of Unplanned Downtime

31% Vs 75%

Across All Industries
In Our Industry

Our industry, as compared to other industries, has higher:

• Number of outages per year
• Cost of downtime
• Time to recover

Source: 2015 Dematic Business Continuity Insights Survey
Why Should I Care?
Understanding the Cause of Downtime Events

75% of unplanned downtime events were IT related.

Near 50/50 split between hardware and software issues.
Managed services is the practice of outsourcing day-to-day IT functions or services with the strategic goal of improving operations (maximize uptime) and reducing expenses (minimize costs).
## What Should I Be Doing?

### Applicable Services for the “Software”

<table>
<thead>
<tr>
<th>Description</th>
<th>Remote Technical Support</th>
<th>System Monitoring</th>
<th>3rd Party Software Patching</th>
<th>Dematic Software Maintenance</th>
<th>Other Support Contract</th>
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<tbody>
<tr>
<td>Application</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Database</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes (SQL Server Only)</td>
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<td>Yes</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Virtual Server</td>
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<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>Hardware</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
What Can Dematic Do For Me?
Understanding the Capabilities of Dematic

Managed Services

- Database Administration
  Optimize Database Performance as You Grow

- 3rd Party Software Patching
  Protect your Infrastructure against Vulnerabilities

- System Monitoring
  Prompt Notification of Failures and Problems

Software Maintenance
Keep Your Dematic Application Up to Date

Remote Support*
24 x 7 Assistance for your Solution

Technical Support

Remote Support*
24 x 7 Assistance for your Solution
Thank you