

Embracing Bimodal IT:

TRANSFORMING THE TITANIC TO THE LITTORAL COMBAT SHIP

NDIA Agile in Government Summit

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Topics

Lockheed Martin Data Center Infrastructure (DCI)

DCI's Case for Change

What We Tried

Why DevSecOps and Agile?

How We Did It

Results: 18-Months

What We Learned



EMBRACING NEW PRACTICES
TO REMAIN RELEVANT.

LOCKHEED MARTIN (LM)



100,000
Employees



60,000
Scientists,
Engineers and IT



500+
Facilities
Worldwide



Operating in over
70 Countries

With 7,200+
Employees

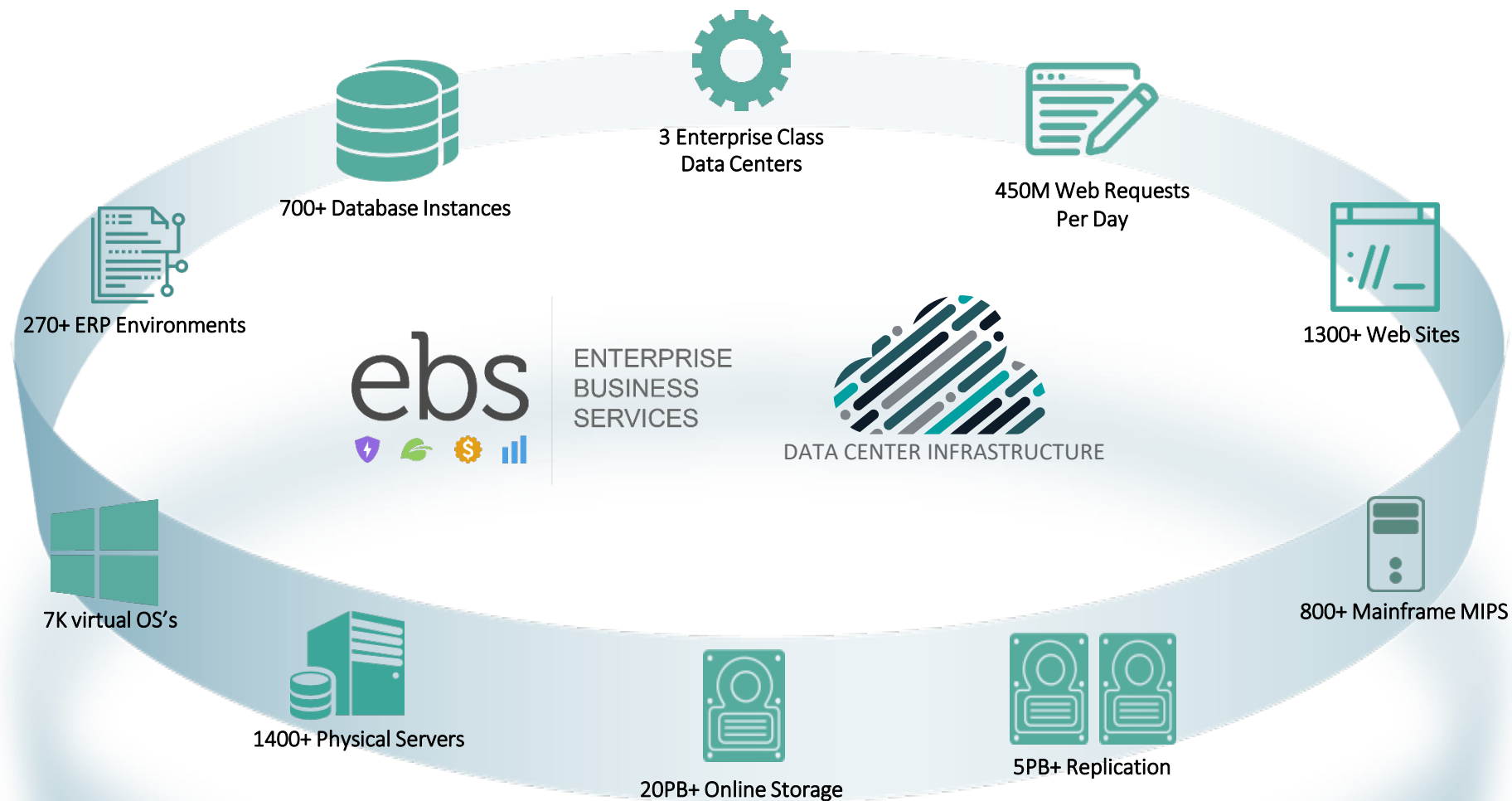


LM ENTERPRISE BUSINESS SERVICES (EBS)



CYBER SECURITY
ENERGY ENVIRONMENT SAFETY HEALTH
GLOBAL FINANCIAL SERVICES
INFORMATION TECHNOLOGY

Scope and Scale - EBS Data Center Infrastructure



DCI's Case for Change



SLOW.
INFLEXIBLE.

FAST.
AGILE.
MISSION-FOCUSED.



What We Tried



Failure...

Why?

...Standalone Development Teams

- “Over the Wall” mentality
- Services not ready for prime-time
- Greater focus on new, not existing services

...O&M Development Teams

- Few new technologies – greater focus on incremental updates
- Mediocre progress – operations always “won”

Why DevSecOps and Agile?



DevSecOps

+

Agile



Samurais & Ninjas

Synergistic

Mode 1: Enterprise Strength IT More stable, Predictable Linear, Formal, Agile Rule Based Governance Traditional Vendors, Longer Term Service Centric Longer (weeks or months)		Mode 2: Opportunistic IT Bursts of Changes, Prototypes Empirical, Agile, Informal Role Based Governance New Vendors, Shorter Term Business Centric Shorter (days or weeks)
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Evolutionary

Agile

Autonomous

MVP

Don't build a product like this. You only discover if you have succeeded at the end.



Instead start with something basic and gather feedback as you get more complex.

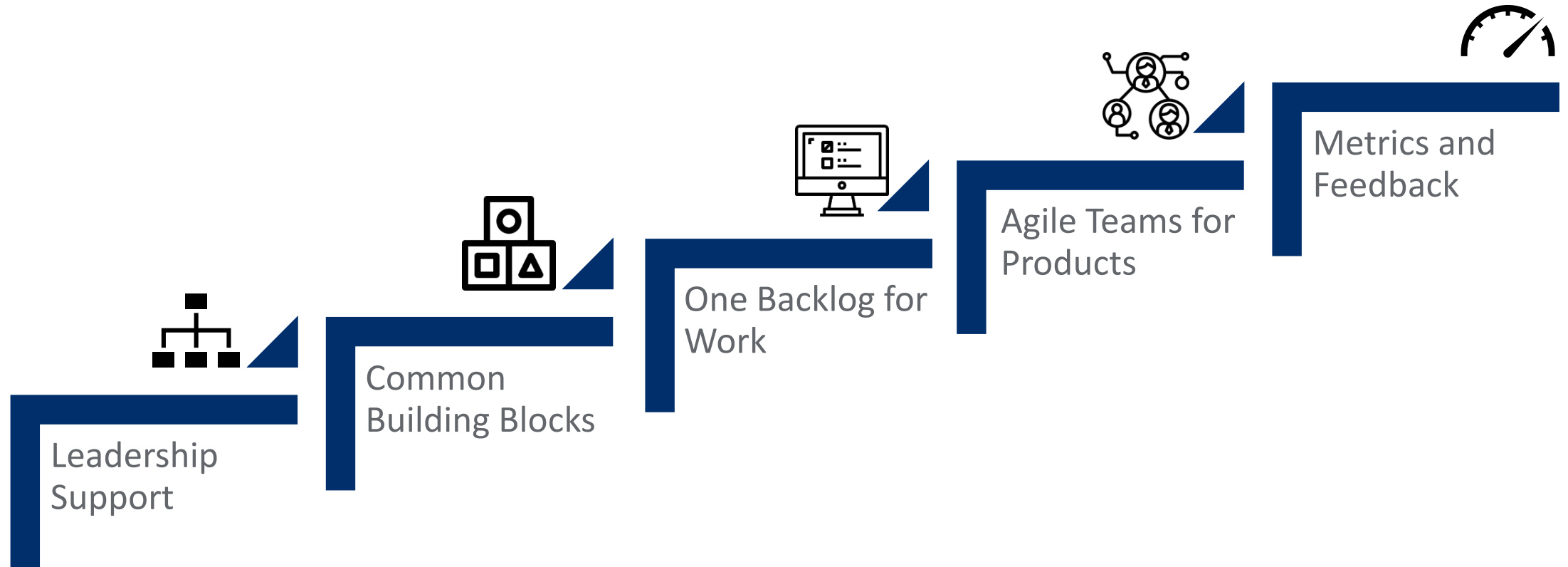


Through 2021, 80% of organizations that do not embrace multiple sources of good practice will lose market share.

This is unchanged since Gartner first reported on this in 2012.*

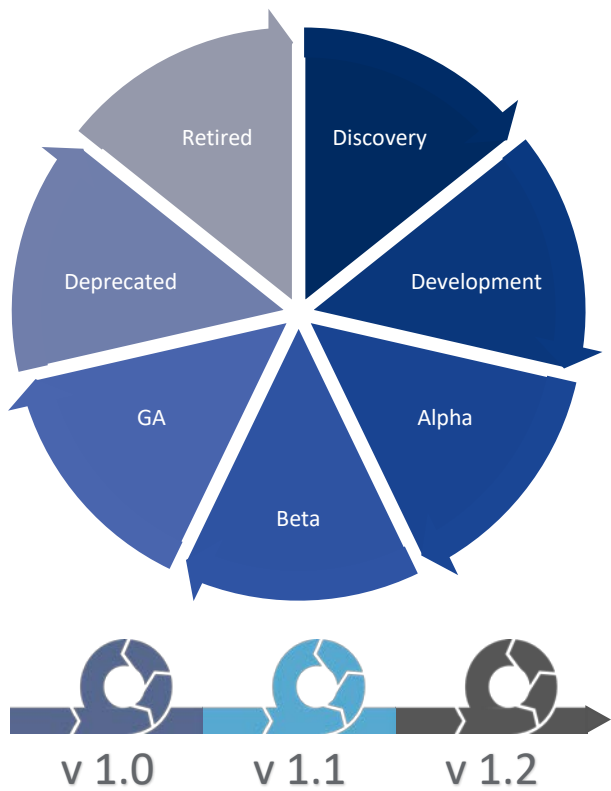
*Gartner 2016 Data Center Summit, “@ the core of change”

How We Did It

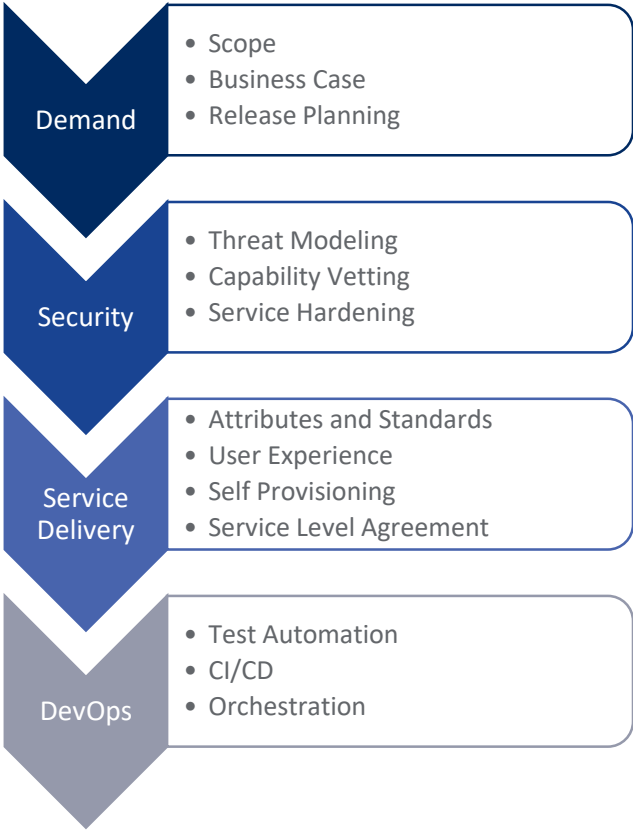


Key Foundations

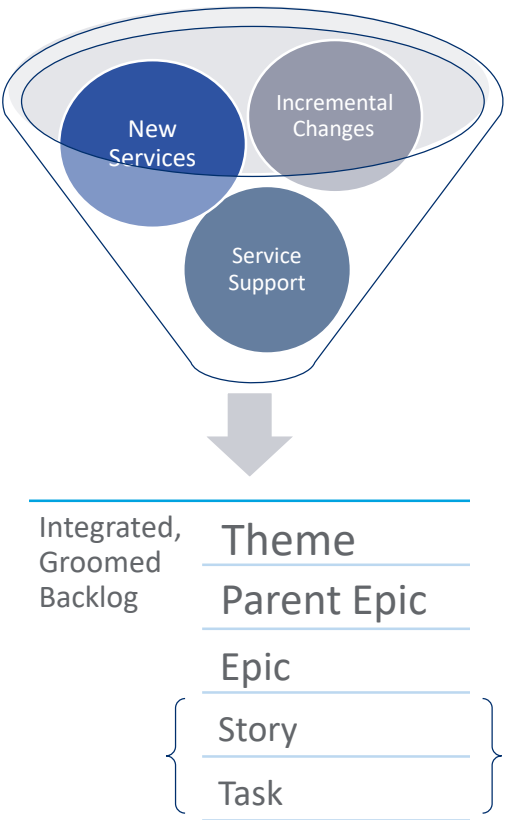
Service Lifecycle



Service Checklist



Service Backlog



Results: 18-Months



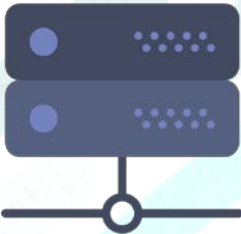
76%

Reduction in per GB replicated storage cost



35%

Increase in hosted compute workloads



77%

DCIers love or enjoy coming to work each day



Service

Methodology

DCI 2015

Waterfall

DCI 2018

Agile

Service Creation

8 months

8 weeks

Service Catalog

3 catalogs

1 catalog

Culture

Morale

0% of questions *above* corp. average

93% of questions *above* corp. average

Stickers

0



Lessons Learned



- ✓ Need to communicate the “why” and align work to strategy
- ✓ Steeper transformation curve for infrastructure teams
- ✓ Define product vision and tools, then align teams and release train
- ✓ Training helps, but need to jump in and swim
- ✓ Manage WIP – use an influential “No”
- ✓ Share agile cadences with dependent partners
- ✓ It’s hard, but it’s worth it!

Agile & DevSecOps Myths

"AGILE IS AN ATTITUDE, NOT
A TECHNIQUE..."

-ALISTAIR COCKBURN



LOCKHEED MARTIN



Agile & DevSecOps Myths

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Myth: "Agile" is a process we need to adopt

Fact: You don't DO agile, you ARE agile

Myth: Agile is for software development

Fact: Agile is about managing work in time boxes

Myth: Agile is about quick and dirty, fix it later

Fact: Agile requires discipline and builds in quality

Myth: Work is "pushed out" and never completed

Fact: Transparency and cadence enable value delivery

Myth: You can't do agile "virtually"

Fact: Virtual teaming requires a virtual framework

Myth: With DevSecOps my Operations job is going away

Fact: You're becoming a Jack of all Trades; Master of One