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Systems Center
PACIFIC

Our Transition to Microservices & DevOps

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Challenges

Complex monolithic application full of capability but unable to field quickly

User frustrated by complexity & inability to get updates out to the field

Difficult to keep up with IA & maintenance costs

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Our Goals

Improved Agility

Deliver capability to the field faster

Improved Customer Experience

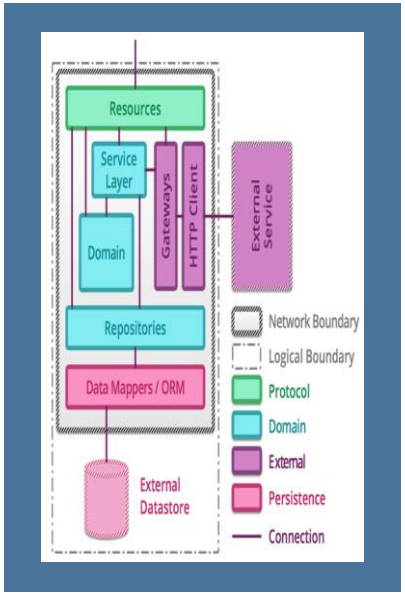
*Create capabilities our users **want** to use*

Decreased Cost

Reduce the cost to develop & maintain capabilities

Evolvable architecture to meet our goals capability packages built on microservices

A Microservice is a basic element that results from architectural decomposition of an application's components into loosely coupled patterns comprised of self contained services that communicate with each other using a standard communications protocol and a set of well defined APIs independent of any vendor, product or technology.



BENEFITS

- Agility
- Efficiency
- Resiliency
- Decreased Costs

PROVEN IN INDUSTRY

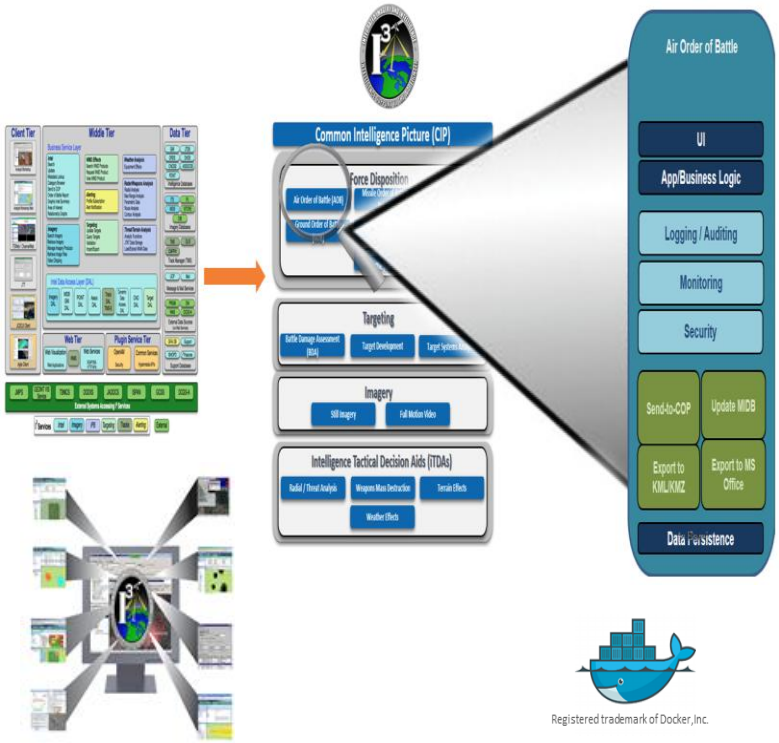
- Netflix
- Amazon
- Google
- Uber

CHARACTERISTICS

- Small focused loosely coupled applications that can deploy independently
- Organized around business capabilities
- Deployable in multiple environments
- Built for replaceability
- Decentralized governance & data management
- Infrastructure automation
- Design for failure

From monolith to ecosystem of capabilities

Proceed with caution



Registered trademark of Docker, Inc.

MAINTAIN
Continue to maintain existing capabilities in the field.

MOVE FORWARD
New features are only introduced on new architecture

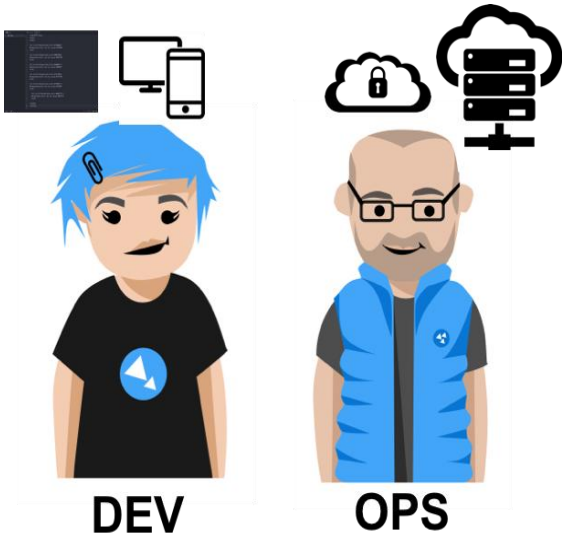
PRIORITY FOCUSED
Focus on highest priority needs of the field.

BUILDING BLOCKS
Create developer guidance & cross cutting packages

DEFER DECISIONS
Make decisions when you need to not before

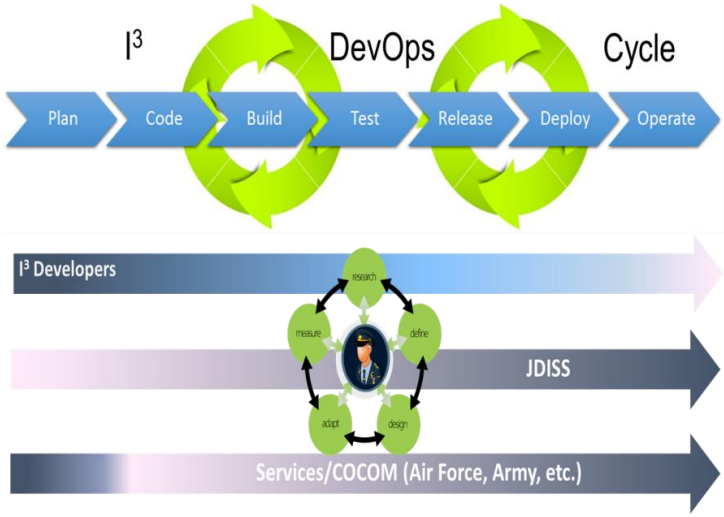
Successful transition requires more than software/architecture changes

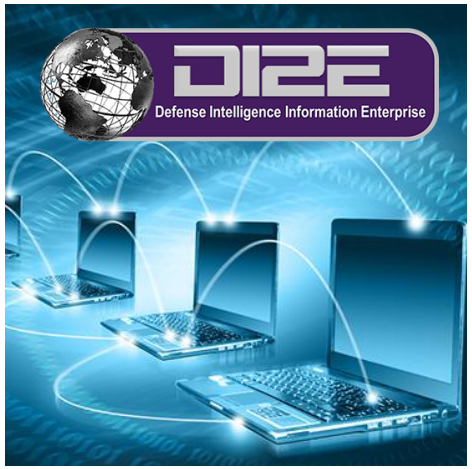
3 focus areas



People

Processes





Products

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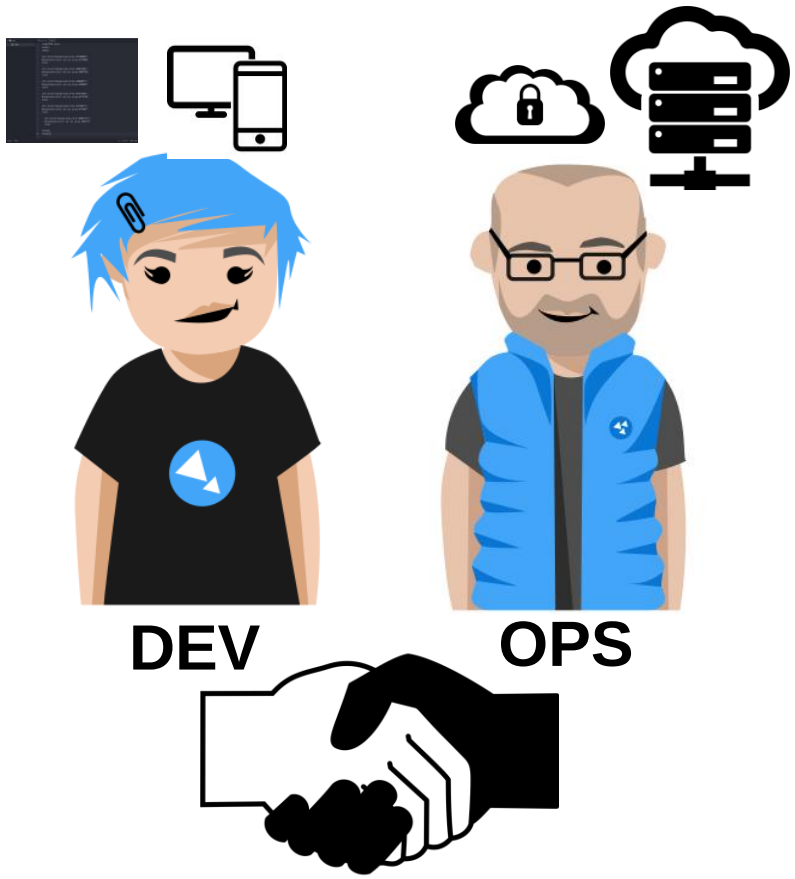
People



DEVELOPMENT

We are very good at agile development practices. However, agile doesn't address operational concerns nor quicker fielding.

OPERATIONS

Operations staff deal with security, testing, and deployment that typically has to deal with waterfall methods & strict processes

DEVOPS

DevOps is a mindset that encourages communication, collaboration, integration & automation among software developers & IT operations in order to improve the speed and quality of software.

PARTNERSHIPS

Partner with other organizations to pull together best of breed applications to address gaps.

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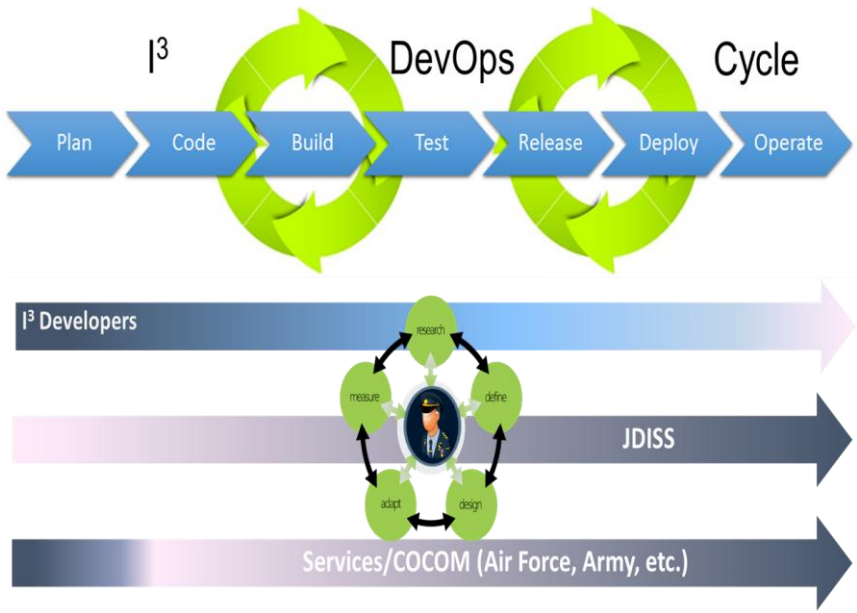
Processes



CRITICAL PRACTICES

Incrementally adopt practices as needed to optimize the software delivery lifecycle

- Minimum viable product
- Loosely coupled & open architecture
- Transparency
- Automate testing

SYSTEMS INTEGRATION MATURITY

Incremental steps to a grow a tailored DevOps maturity model.

USER ENGAGEMENT

Work with users early and often to build the capabilities they want to use

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Products

DI2E TOOLS

Tools that enable cross-functional and disparate teams to support a DevOps culture.

ONBOARDING & GUIDANCE

Guidance on creating capability packages, direction on crosscutting concerns, and onboarding to DevOps environments.

DEPLOYMENT ENVIRONMENTS

Enterprise deployments target the ICITE C2S environment & enterprise nodes. Options at the storefront should exist for local installation as well.

DISCOVERY

Capabilities will go through the DI2E Clearinghouse & register with ICITE & Intelink.

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Questions?