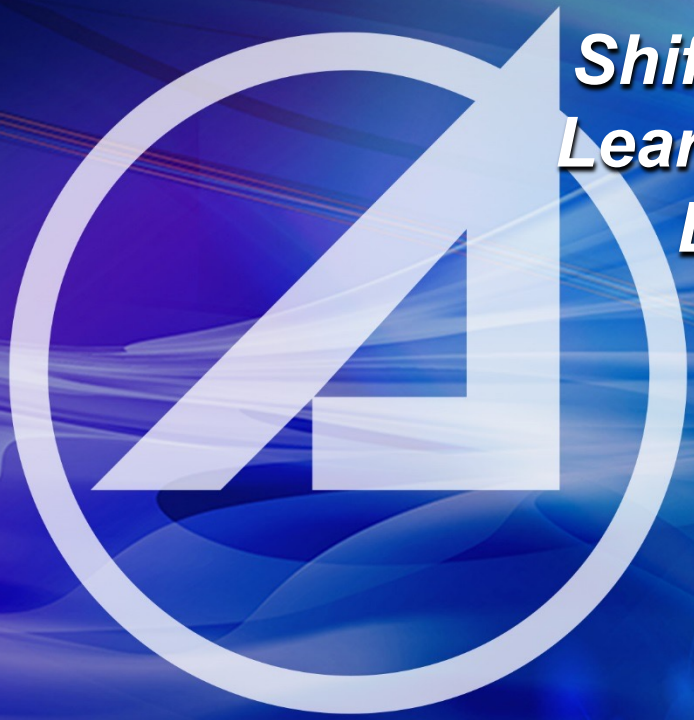

Shifting the Paradigm from Lessons Learned to Lessons Applied through Digitally Enabled Transformation

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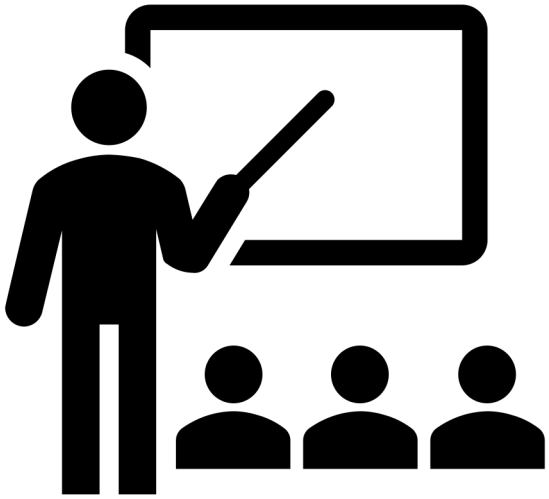
15-20 July 2023
INCOSE IS 2023

Approved for public release. OTR 2023-00920.

What is a Lesson Learned???!!!

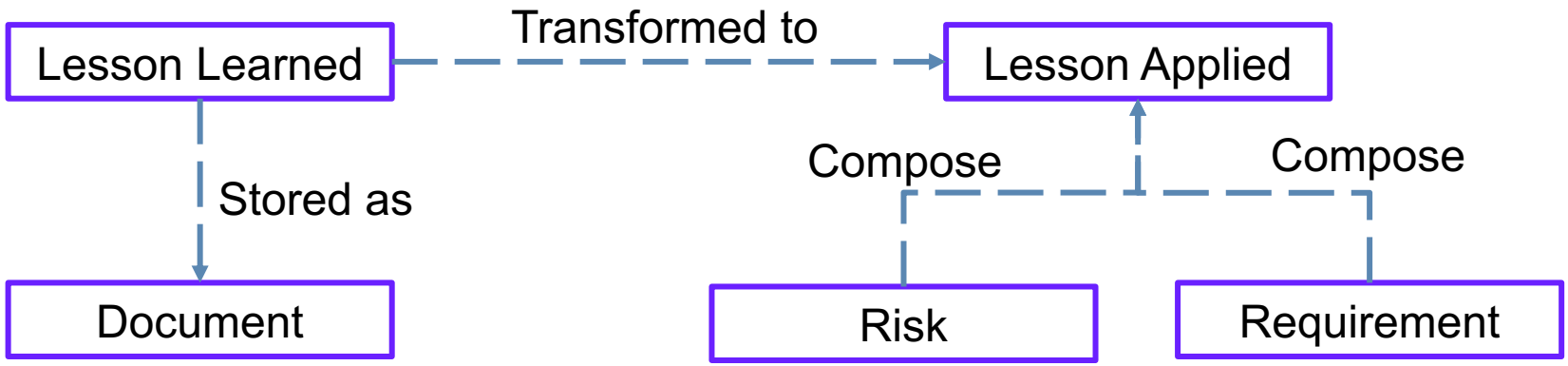
- **Traditional Thought**
  - *We made some mistake*
  - *Let's document it*
  - *And…what else?*
  - *When do we review what we documented?*
  - *What changes have we made because of the lesson?*

- **Paradigm shift**
  - *Have we really learned, if we use the "document and forget" approach?*
  - *For a lesson to be learned, then we must apply a change*



What is a Lesson Learned???!!!

- **Paradigm shift**
  - *Have we really learned, if we use the "document and forget" approach?*
  - *For a lesson to be learned, then we must **apply** a change*
- **So, what is a Lesson Applied?**
  - *Risk element*
  - *Requirements element*

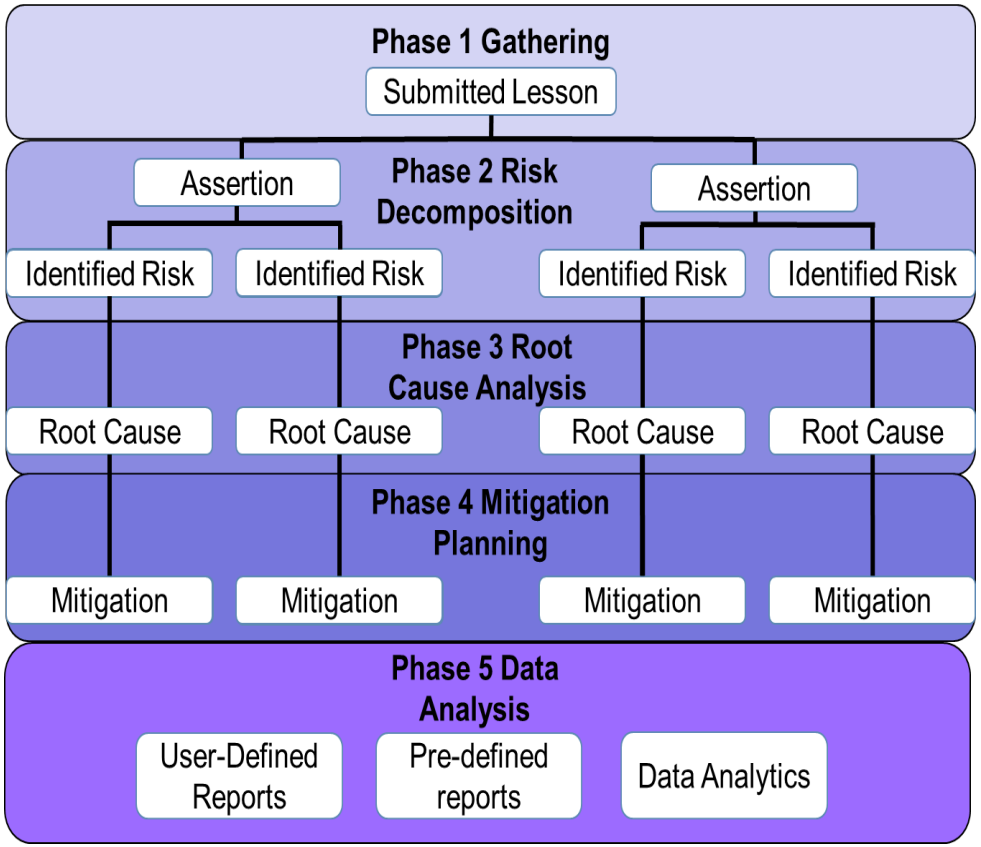


Rather than lessons learned, shift the mind set to LESSONS APPLIED

Methodology

Five Phase Approach:

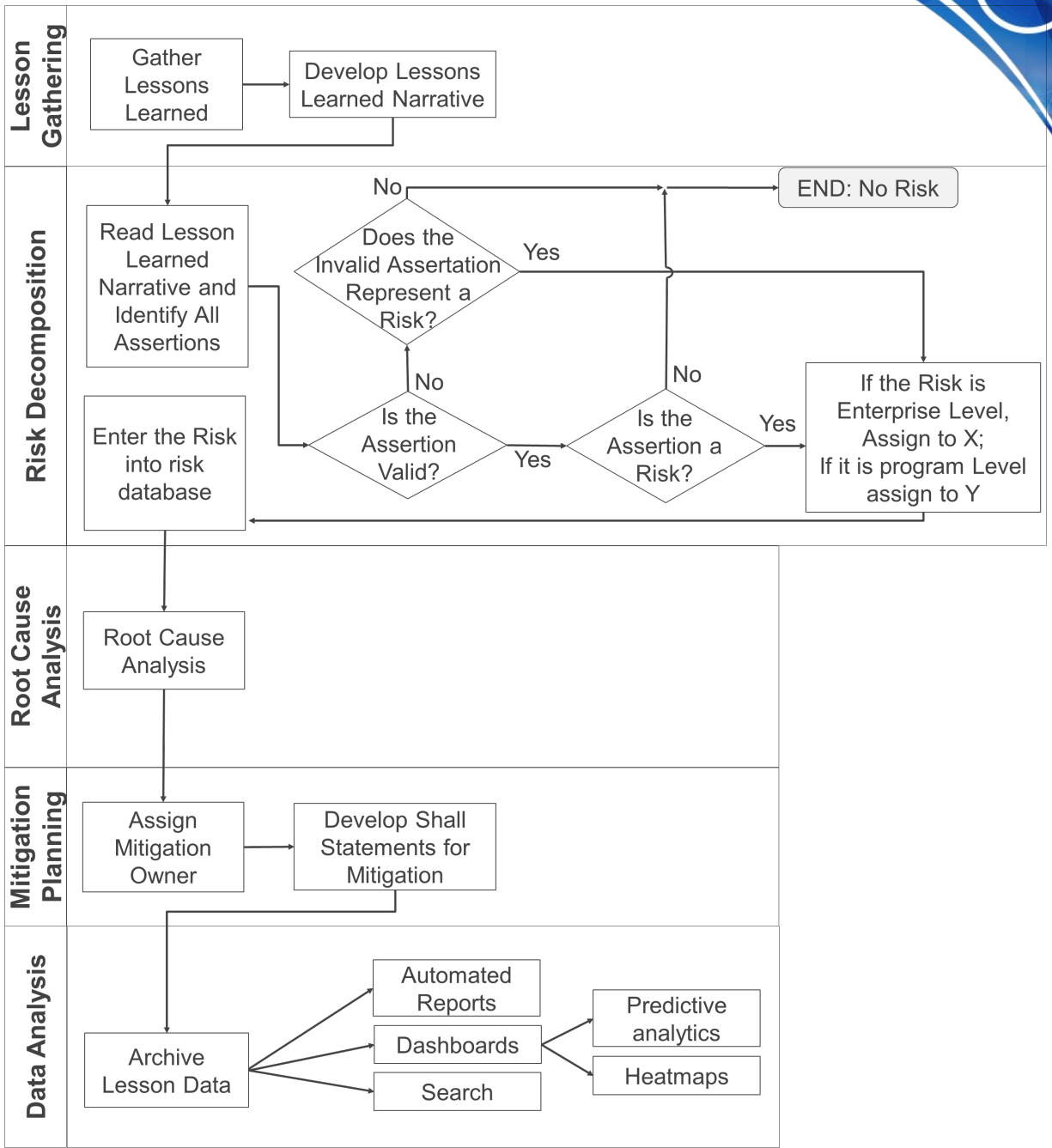
1. Gathering – Data from wide range of sources (existing lessons, new lessons, reports)
2. Risk Decomposition – Description of lessons in a way which identifies risks and impact
3. Root Cause Analysis (including forensics)
4. Mitigation Planning – Prescribe mitigation actions; assign ownership and deadlines
5. Data Analysis – Active lesson management, enterprise analysis and application, “big data” analytics



Flow Diagram

Five Phase Approach:

1. Gathering
2. Risk Decomposition
3. Root Cause Analysis
4. Mitigation Planning
5. Data Analysis



Gathering

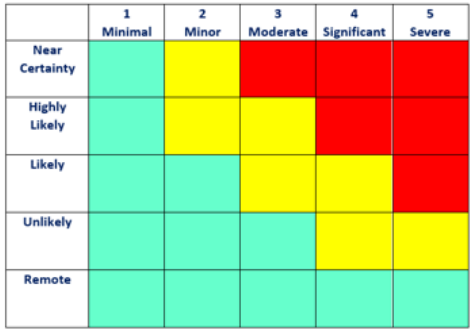
- **What makes a good "lesson learned?"**
  - *Clear statement of what happened.*
  - *Context with contributing factors. These could include describing the process, organization, timing, or other influences directly associated with the situation.*
  - *Description of impacts; especially in terms of resources, time or other factors.*
  - *Statement relies on facts while being devoid of opinion and emotion.*
  - *Provides account of, or example of evidence supporting assertion.*

Risk Decomposition

Encompasses thorough evaluation of the lesson material to understand consequences. Lessons Applied process introduces additional rigor for describing key underlying factors

Explaining impacts in programmatic terms provides better decision-making data

- Foundational to data-driven decisions
- Better understood by leadership in acquisition-focused program offices and mission partners
- Builds ability to compare one lesson to another for determining priority of effort both internally at program/site level but also at enterprise level
- Creates information that is more translatable to a broader cross-section of NSE
- Specialized offices and processes have more pertinent lessons to review for application
- Analytics on impacts likely to produce more cost and schedule savings

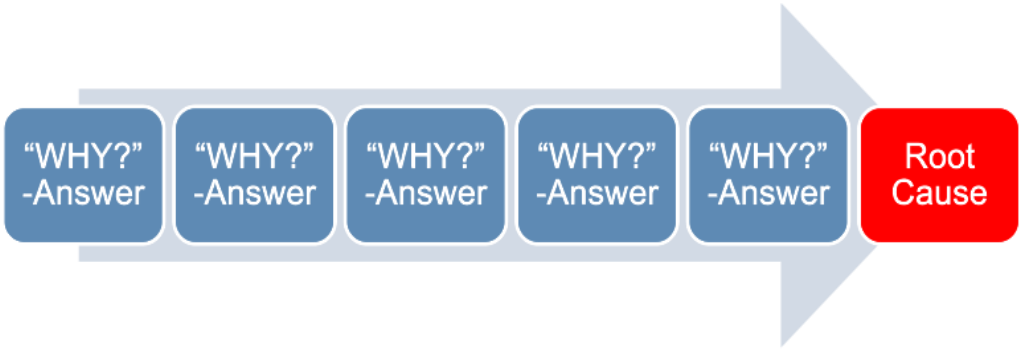


Likelihood	Definition
5	Near certainty (90%)
4	Highly likely (75%)
3	Likely (50%)
2	Unlikely (25%)
1	Remote (10%)

Root Cause Analysis

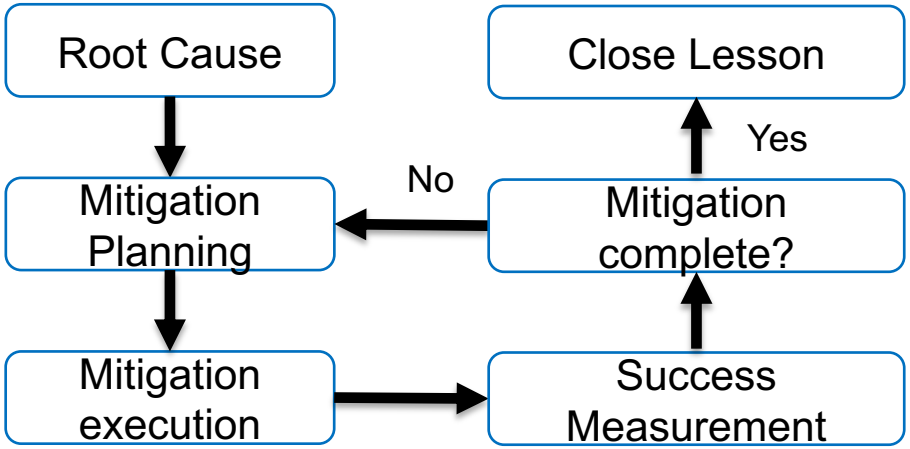
Institutes process of critical thinking

- Programs currently driven by technical concepts; lessons often devoid of institutional or enterprise discussions
- Expands recognition of lesson sources; Fosters thinking on programmatic considerations
- Better understood by acquisition-focused program office leadership and mission partners
- Builds ability to compare one lesson to another from programmatic standpoint for determining priority of effort, both internally at program/site level but also at enterprise level
- Focuses on causes rather than symptoms
- Judgements based on facts and experience versus emotion
- Emphasizes cause-and-effect relationship
- Evaluates process more than person, site or program



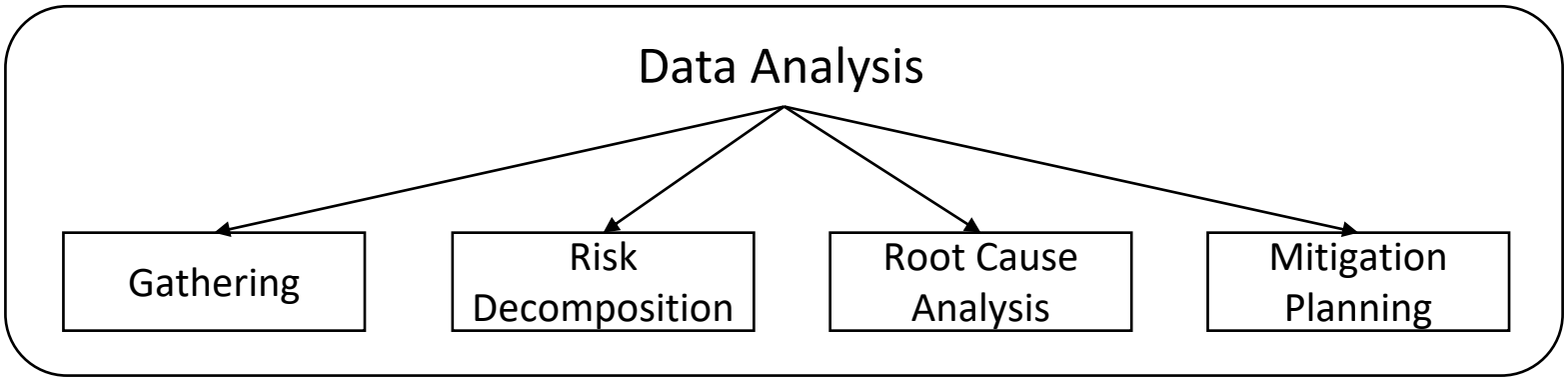
Mitigation Planning

- Application of mitigation planning builds upon methodology using critical thinking
  - Matches specific root causes to focused actions
  - Ties back to identified risks to produce an ability to gauge a relative level of success
- Enhances data analytics
  - Historical perspective of actions (success, return on investment)
  - Makes active management of open lessons possible
  - Creates ability to find most effective strategies, agencies/sites/programs, or trends in closing out lessons (measure time or topics)
  - Provides context for unsuccessful mitigation

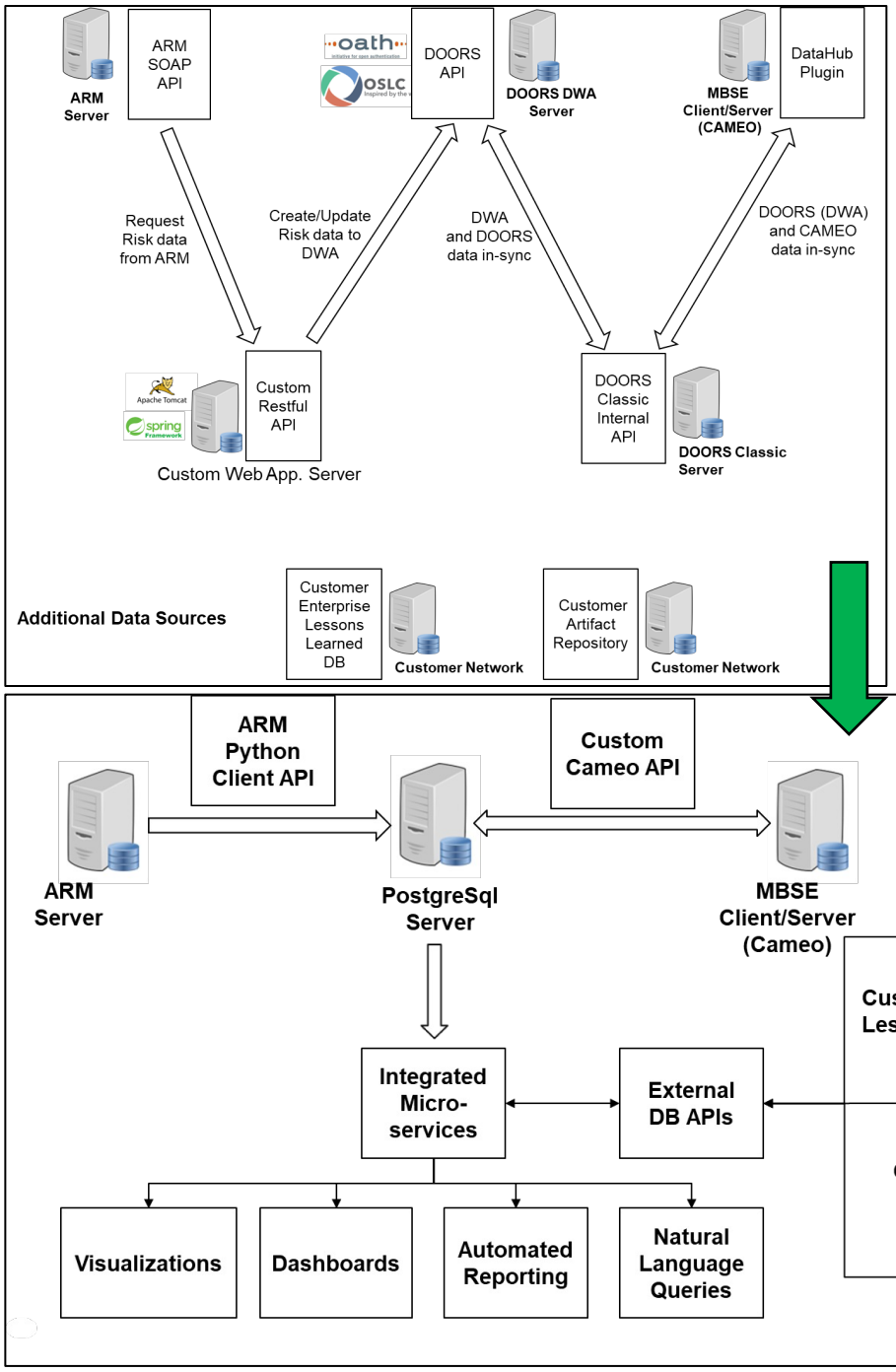


Data Analysis

- Predictive analysis
- Identify hidden trends
- Automated analysis tools and custom visualizations
  - User-specific views to observe data in different way
  - Identify valuable trends, patterns or correlations not otherwise seen within the data
- Gathers information from all other phases
- Informs processes used in other phases



Lessons Applied Architecture Transition



Improved capabilities:

- Increased flexibility
- Real-time, automated linkage to data
- Dynamic dashboard
- Topical search all data
- “Big Data” analytics to expose hidden trends, predictive analysis
- Reduced licensing costs
- Improved user experience

33rd Annual INCOSE international symposium

hybrid event

Honolulu, HI, USA
July 15 - 20, 2023

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Thank you! Questions?