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System Wide Information Management as a “Disruptive Innovation”

I-CNS Presentation

John W. Moore

Boeing Phantom Works

john.w.moore@boeing.com

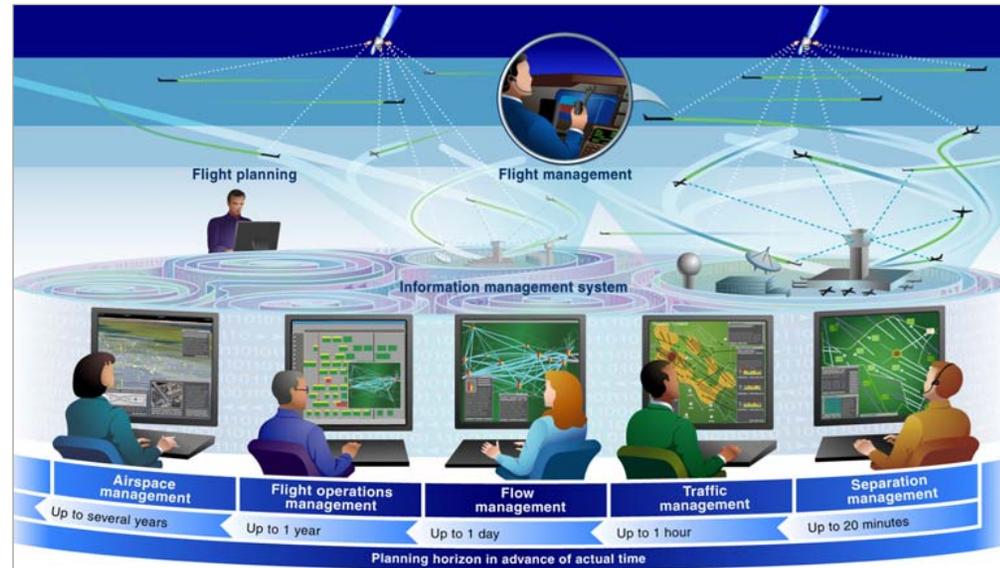
Goal: Operational Improvements through Information Coherency

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GCNSS Phase III

Operational improvements driven by timely, accurate, actionable information sharing

- Everybody working with coherent information so decisions are coherent as well
- Right data provided securely to the authorized user at the right time
- Coherency examples:
 - Source
 - Authoritative
 - Standardized
 - Quality
 - Timeliness
 - Accuracy
 - Integrity
 - Security
 - Proprietary rights



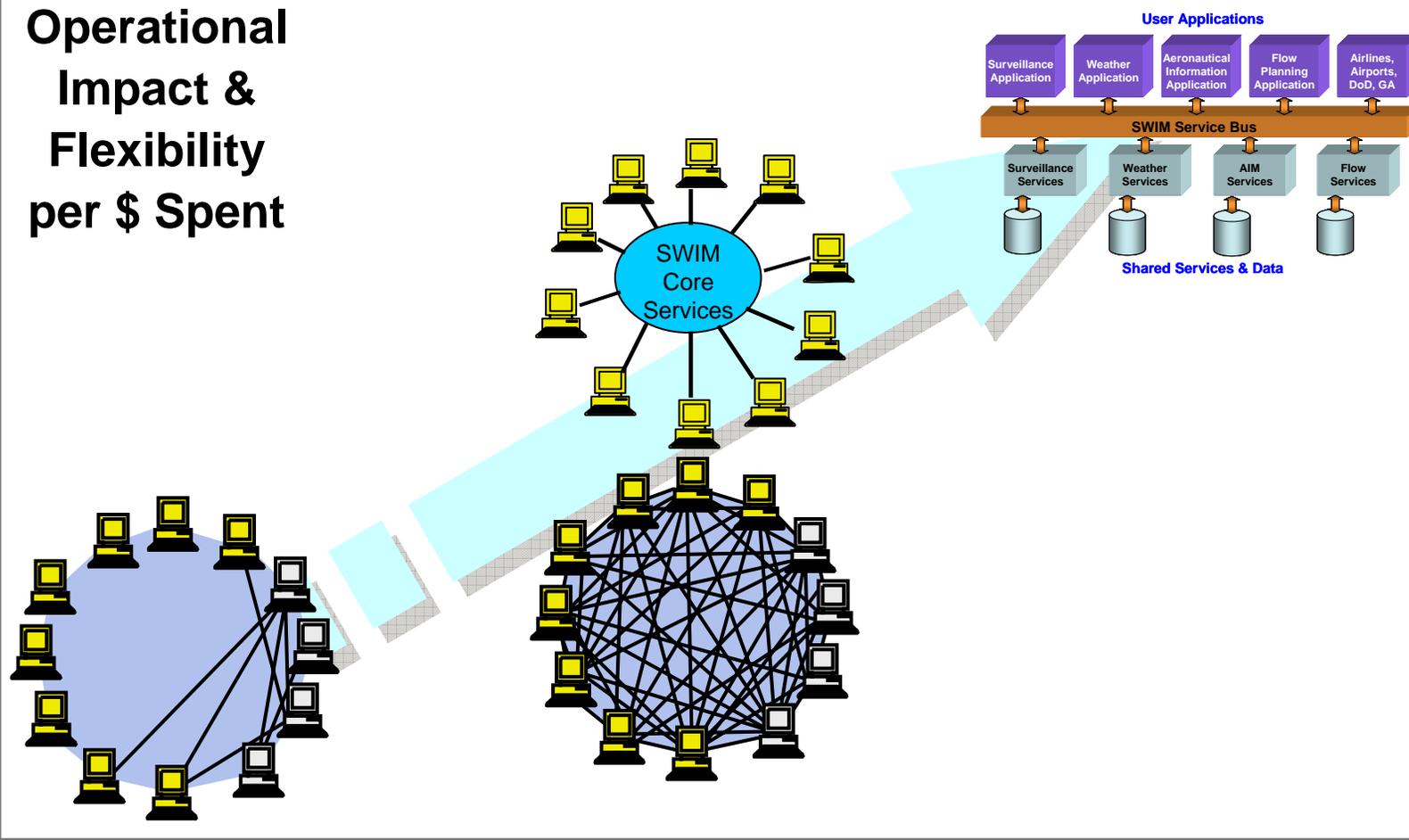
Everybody does not get all the data all the time

Evolution to Service Oriented Architecture

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GCNSS Phase III

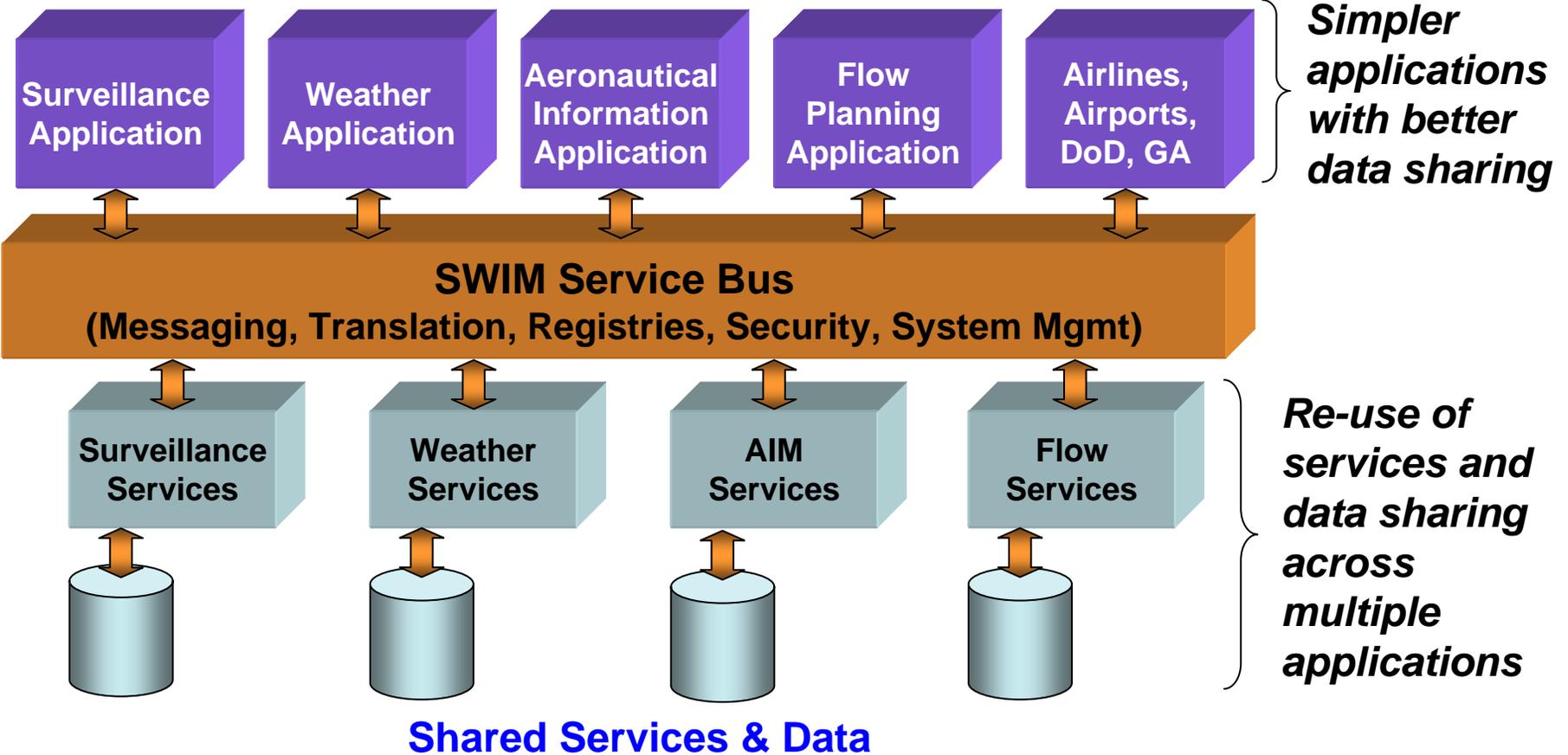
Operational
Impact &
Flexibility
per \$ Spent



Time

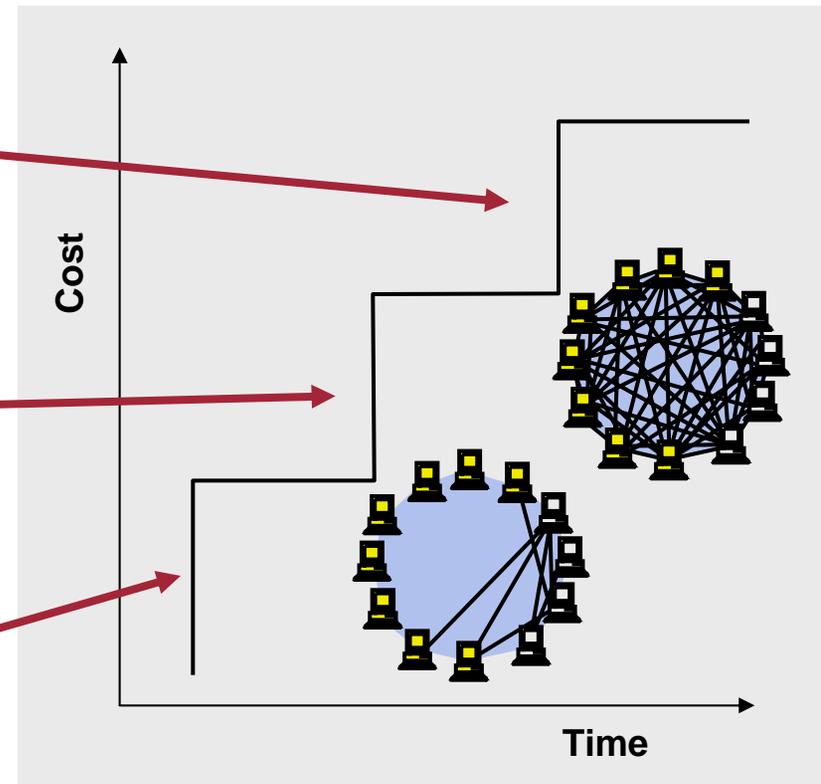
SWIM Services Oriented Architecture

User Applications



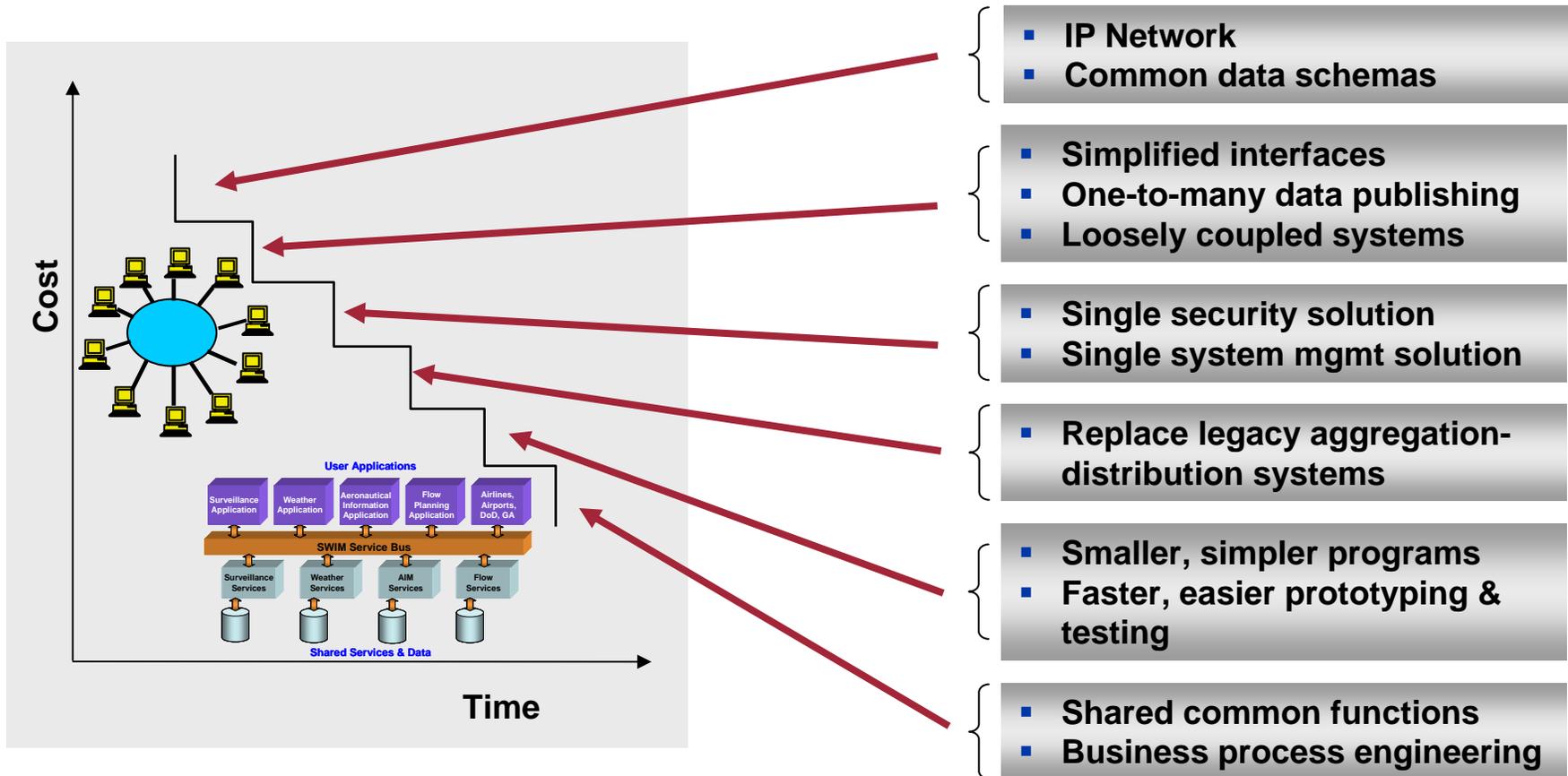
Cost Impacts

- Increased development cost drives for extended lifecycle of existing systems
- Need for information sharing requires interfaces between systems
- Maintenance costs increasing due to age of existing systems



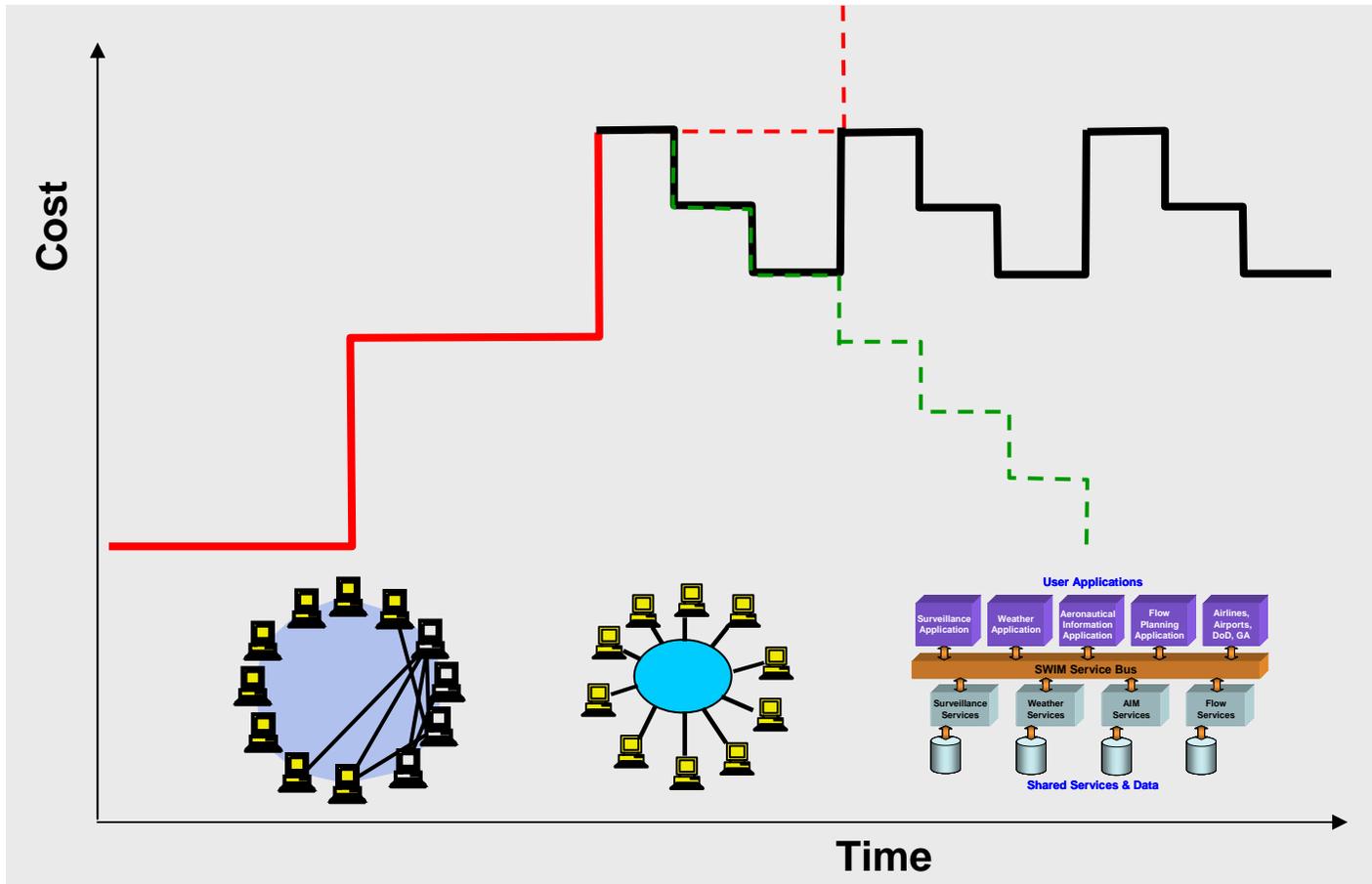
Big, complex systems drive large cost increments

SWIM SOA Benefits Accrual



SWIM provides many and frequent incremental benefits

SWIM as a “Disruptive Innovation”*



SWIM enables the capabilities we need at a manageable cost

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* as coined by Clayton M. Christensen

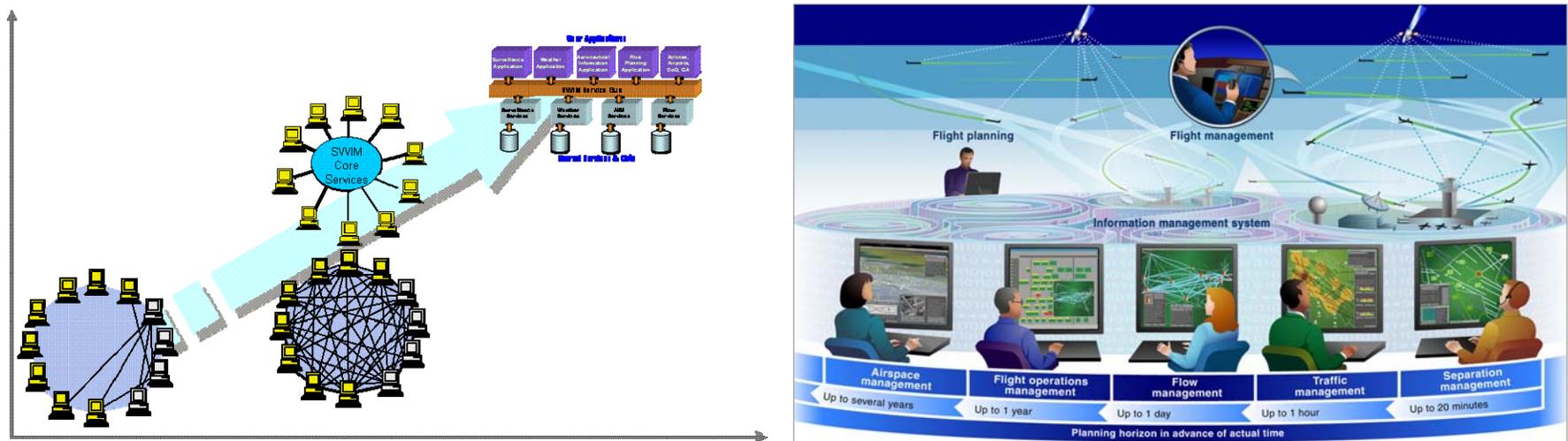
Example Disruptive Innovations

Disruptive Innovation	Displaced or Marginalized Technology
Steam and internal combustion engines	Horses, sails, etc
Digital watches	Wind-up watches
Telephones	Telegraph
Semiconductors	Vacuum tubes
Minicomputers	Mainframe computers
Personal computers	Minicomputers
Cassette tape	Records and eight-track tape
Compact disk	Cassette tape
Digital audio player	Compact disk
Digital photography	Film or chemical photography
Desktop publishing	Traditional publishing

Adapted from http://en.wikipedia.org/wiki/Disruptive_technology

Observations

- Disruptive innovations arise from opportunities
- Organizations do not always embrace disruptive innovations
- We have an opportunity with SWIM



Final Thought

“Generally, disruptive innovations were technologically straightforward, consisting of off-the-shelf components put together in a product architecture that was often simpler than prior approaches.”

The Innovator’s Dilemma by Clayton Christensen