Defense Information Systems Agency
Department of Defense

Surviving the Trough of Disillusionment

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“SOA is dead”

Anne Thomas- Maines, The Burton Group Inc.

Top SOA Misconceptions

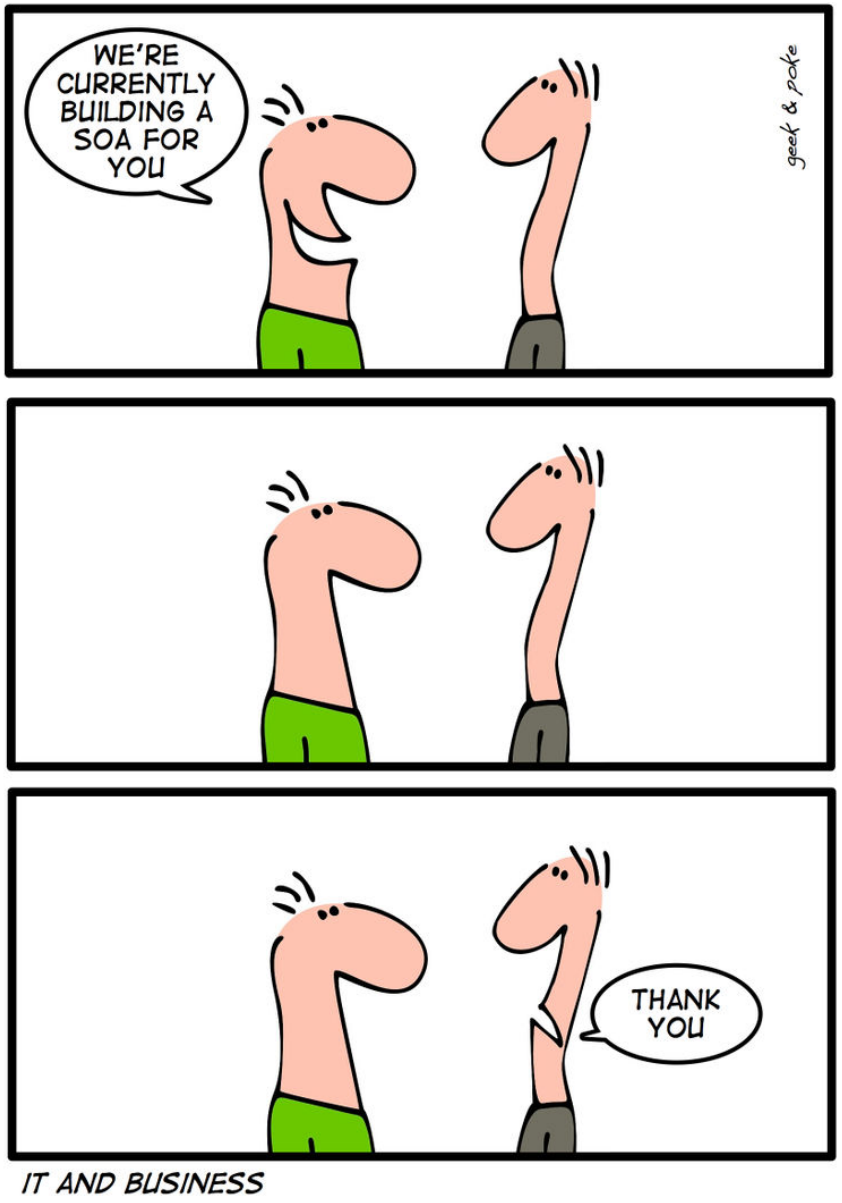
SOA = ESB

SOA = Web Services

SOA is about technology

SOA is easy

SOA is dead



Hard lessons we've learned:

- SOA can’t be bought
- There are no simple solutions
  - Private industry facing the same challenges
- Current acquisition process does not incentivize SOA adoption
- Technology standards not yet mature
- Good solutions flow naturally from well understood business relationships

SOA Principles Still Valuable

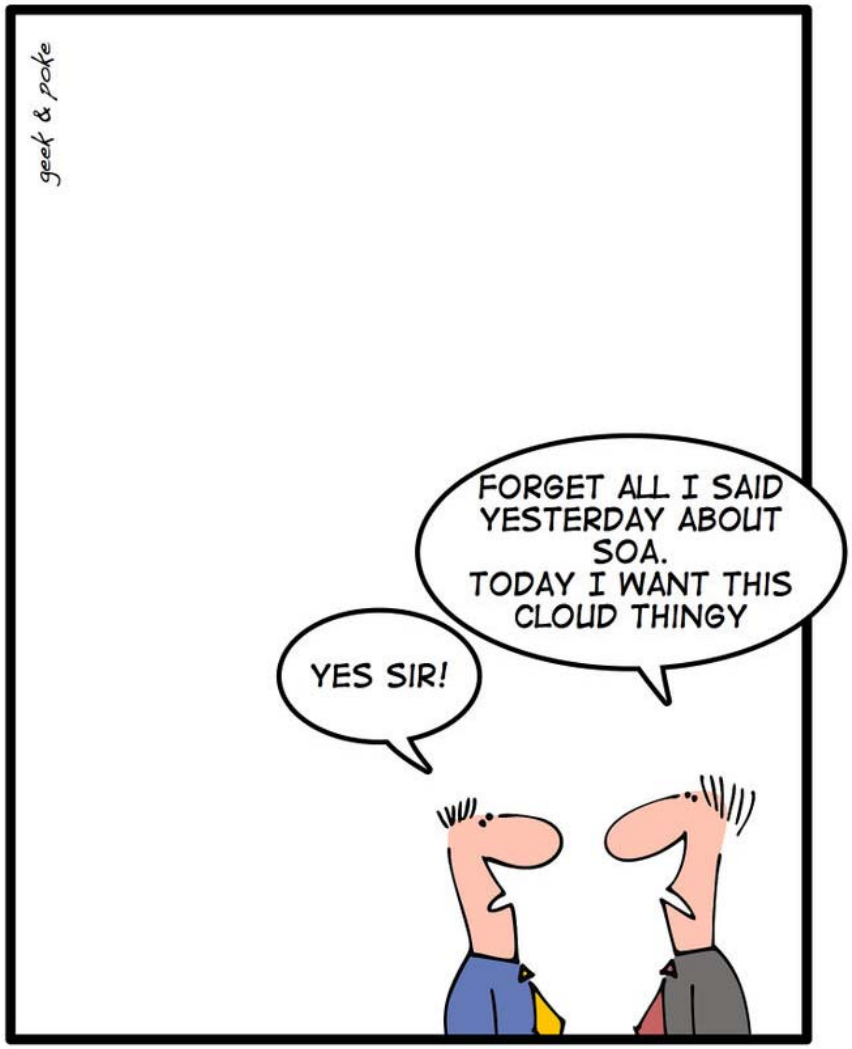
- **Service-orientation**
  - **Provide your functions to benefit others**
  - **Consume from others rather than build for yourself**
- **Loose coupling**
  - **Interfaces decoupled from underlying implementation**
  - **Common standards, protocols and vocabularies**
- **Separation of concerns**
  - **Provider focus on providing value, performance and dependability**
  - **Consumers consume those services that best meet their needs**
  - **Service-level agreements to remove ambiguity**

NCES SOA Foundation

Fielding Decision (August 2009)

Fielding Decision (March 2010)

Pink is The New Black



SIMPLY EXPLAINED – PART 37: AGILITY

DISA

RACE and Forge: Cloud Computing Components

- Platform-As-A-Service (PaaS)
  - Delivers a computing platform and/or solution stack as a service
  - Facilitates deployment of applications without the cost and complexity of buying and managing the underlying hardware and software layers
- Infrastructure-As-A-Service (IaaS)
  - The delivery of computer IasS, typically platform virtualization
  - For example:
    - Virtual desktops
    - Grid computing

- Applications-As-A-Service (AaaS) /Software-As-A-Service (SaaS)
  - Leverages the Cloud in software architecture
  - Eliminates the need to install and run the application on the customer's own computer
  - Type:
    - Commercial: Potential Issue: How to identify and "on ramp" offerings?
    - Government:

Forge.mil

•Develops the SaaS Ecosphere
•Accelerates applications development

- Data-As-A-Service (DaaS)
  - Leverages the Cloud for delivering database services

Users Want To Use The "Cloud" Services

SoftwareForge – Limited Operational Availability

Find Software

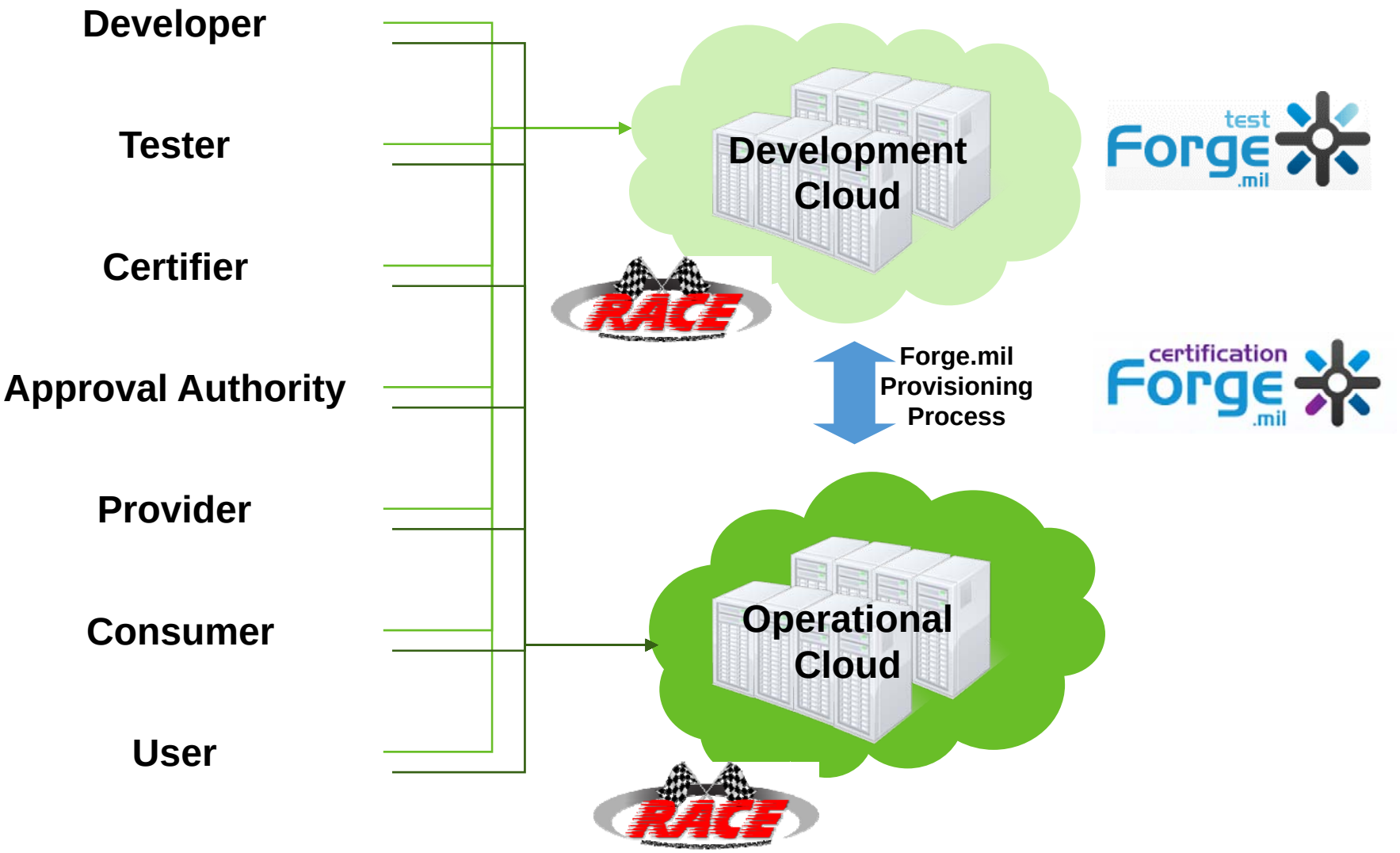
- DoD Open Source
- DoD Community Source

Develop Software

Project Workspaces

S/W Version Control

Forge.mil and Cloud Computing



Conclusion

- SOA has entered the “trough of disillusionment”
- SOA principles still valuable
- “Cloud computing” has become the term de jour
- DISA is implementing the environment to enable the effective adoption and delivery of cloud services

Backups

RACE and Forge.mil

RACE Phase I

- **Acquire development server**
- **Develop application**
- **Developer Testing**

RACE Phase II

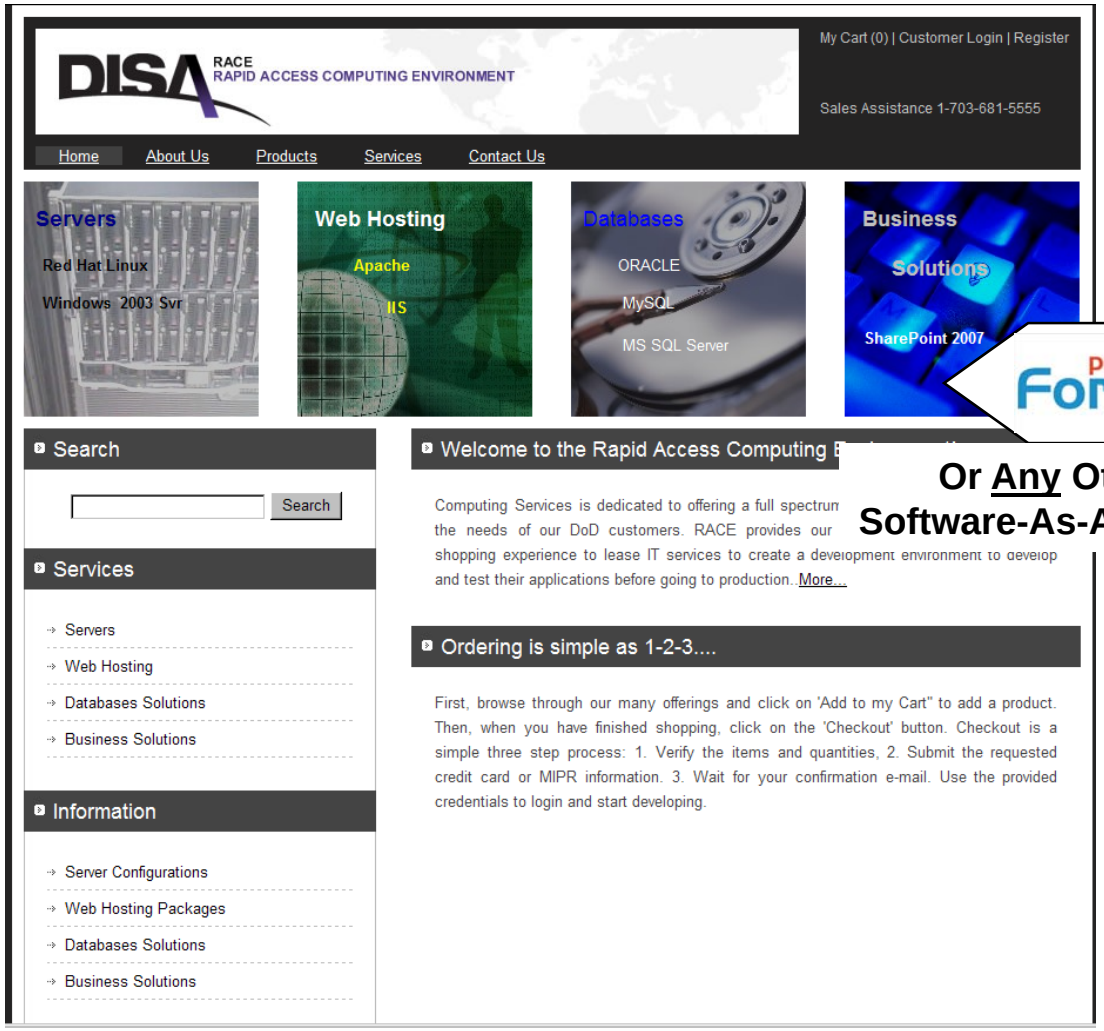
- **Certify and accredit application**
- **User Testing**
- **Store and share image**
- **Pre-production test and QA**

- **Find pre-existing source code**
- **Manage project lifecycle for public projects**
- **Share new code with others**
- **Collaborate with other DoD projects**

- **Manage team efforts**
- **Manage project lifecycle for private projects**
- **Collaborate with team members**

Independent But Complementary Activities

Proposed RACE User Interface



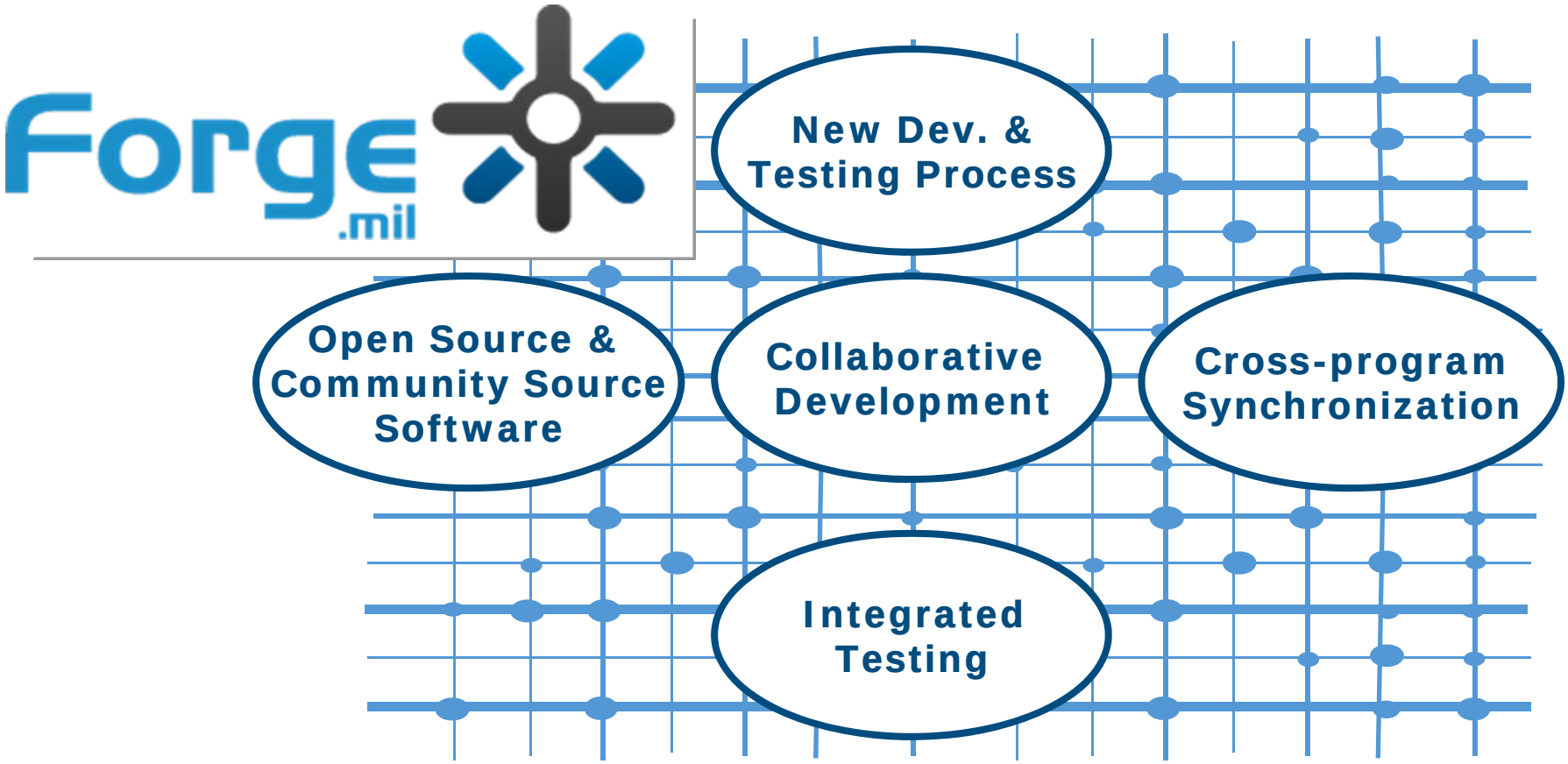
project Forge .mil

Or Any Other Software-As-A-Service

- Software.Forge becomes a NCES-like offering
- Project.Forge becomes a SaaS offering
- Both user communities can be RACE customers
- RACE is a User Self-Service Portal for CSD services

RACE Is The User Entry Point For Service Offerings

Net-Centric Development & Deployment Services



Recommendations:

- **Focus on the service provider business relationship & responsibilities**
- **Turn centralized enterprise infrastructure challenges over to data center and network providers.**
- **Emerging cloud computing service providers may offer significant benefits**

Focus on the service provider business relationships and incentives

Service Provider focus:

- **Profile best-in-class web service providers in DoD/IC**
- **Highlight SLAs and other practices of the top providers**

Incentives:

- **Establish what are the basic web services that each org should provide as part of their core mission**
- **Increase the number of DWCF/cost reimbursable orgs offering services on the net**
- **Bake key services into network e.g. DNS within DISN**
- **Create challenge grant pools to competitively select and support new services**

Leverage existing infrastructure providers for app enterprise services

Turn centralized enterprise infrastructure challenges over to data center and network providers.

- **Data center providers should provide storage, mediation, queuing services - those services that require scale and high availability.**
- **Characterize wide area app message transport as a network problem not an application systems problem.**
- **Network orgs have decades long experience in moving information packets between organizations across the planet.**


DEFENSE INFORMATION SYSTEMS AGENCY