A Net-Centric DoD
NII/CIO

Defense Transformation

Building the Foundation: Net-Centric Operations and IPv6

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Power to the Edge

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Where We Are Going

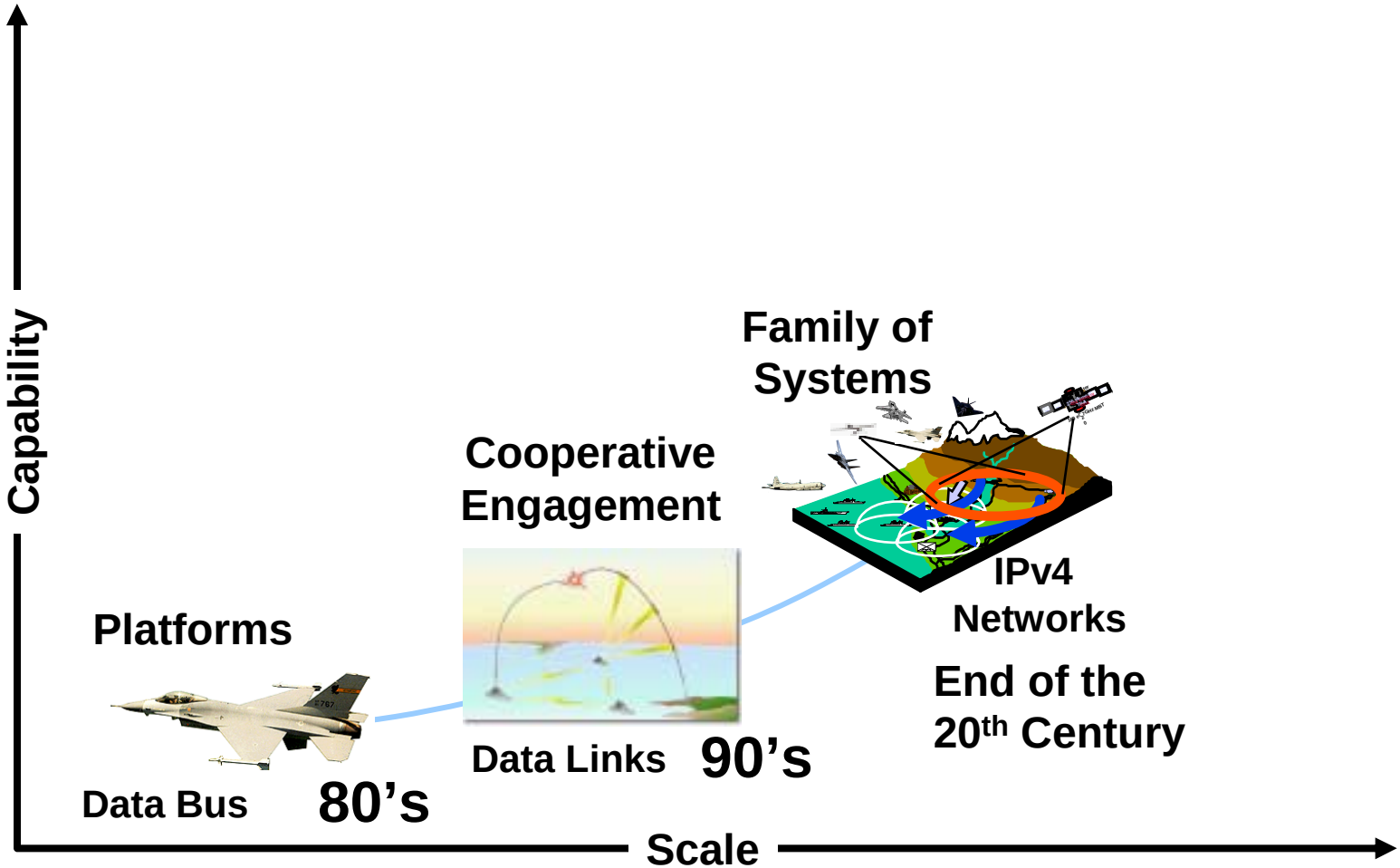


"The two truly transforming things might be in information technology and information operation and networking… connecting things in ways that they function totally differently than they had previously.

And if that's possible…then possibly the single most transforming thing in our force will not be a weapon system, but a set of interconnections and a substantially enhanced capability because of that awareness."



Defense Capabilities Over The Years



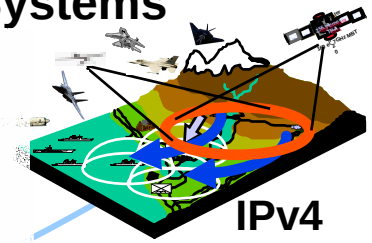
Power to the Edge

Is There A New "Killer Application"?

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Capability

Family of Systems



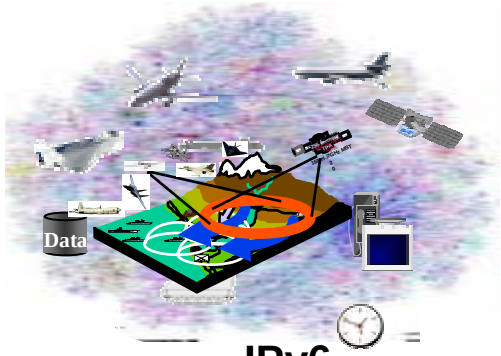
IPv4 Networks

End of the 20th Century

Scale

Power to the Edge

Net-Centric Operations
The New Killer Application



The Global Information Grid

IPv6 Networks

Beginning of 21st Century

Capability

Scale

Platforms

Data Bus 80's

Data Links 90's

End of the 20th Century

Power to the Edge

Net-Centric Operations
The New Killer Application

1. Make information available on a network that people depend on and trust

2. Populate the network with new, dynamic sources of information

3. Deny the enemy advantages and exploit weaknesses

The Global Information Grid



IPv6 Networks

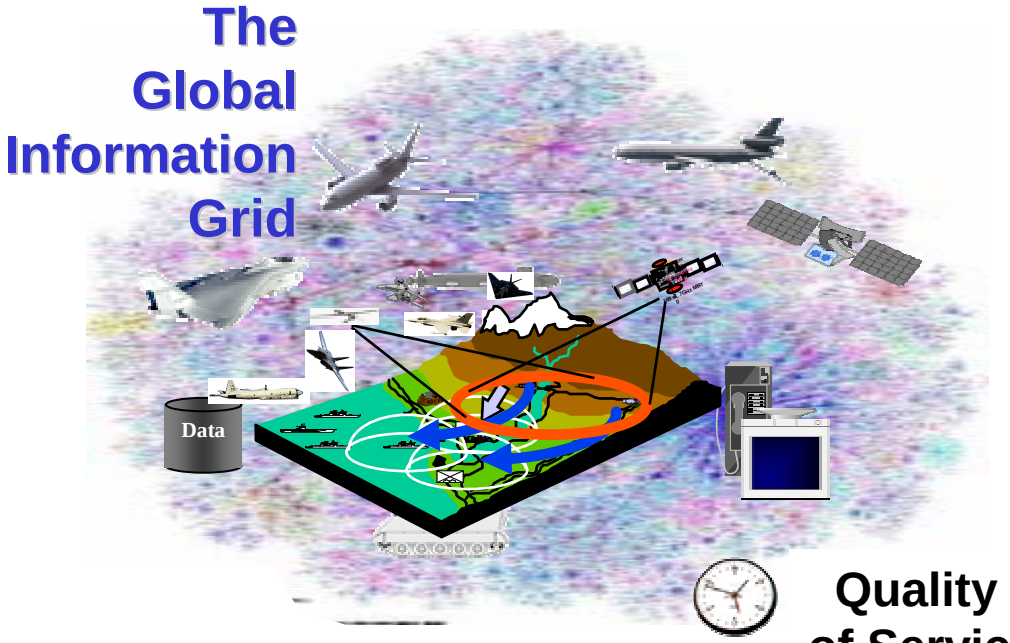
Beginning of 21st Century

Capability

Scale

Power to the Edge

Defense Transformation and Net-Centric Operations



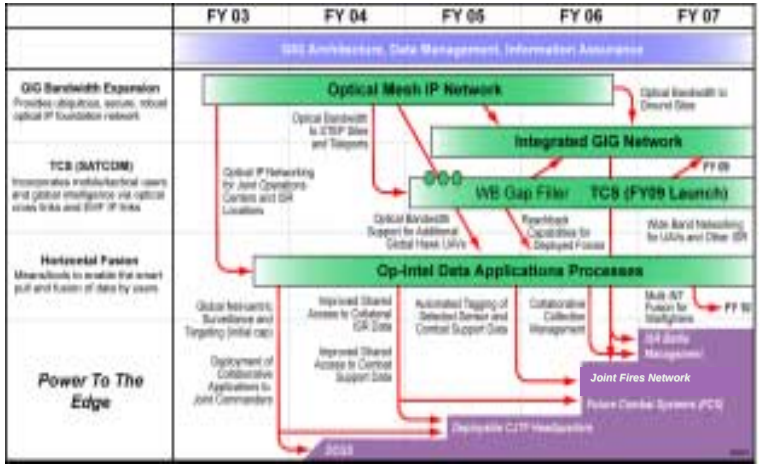
Department of Defense Transformation Planning Guidance

April, 2003

"… adopt 'post before process' intelligence and information concepts, achieve data level Interoperability; and deployment of "net-ready" nodes of platforms, weapons and forces."

Strategic Direction

Global Information Grid Investment

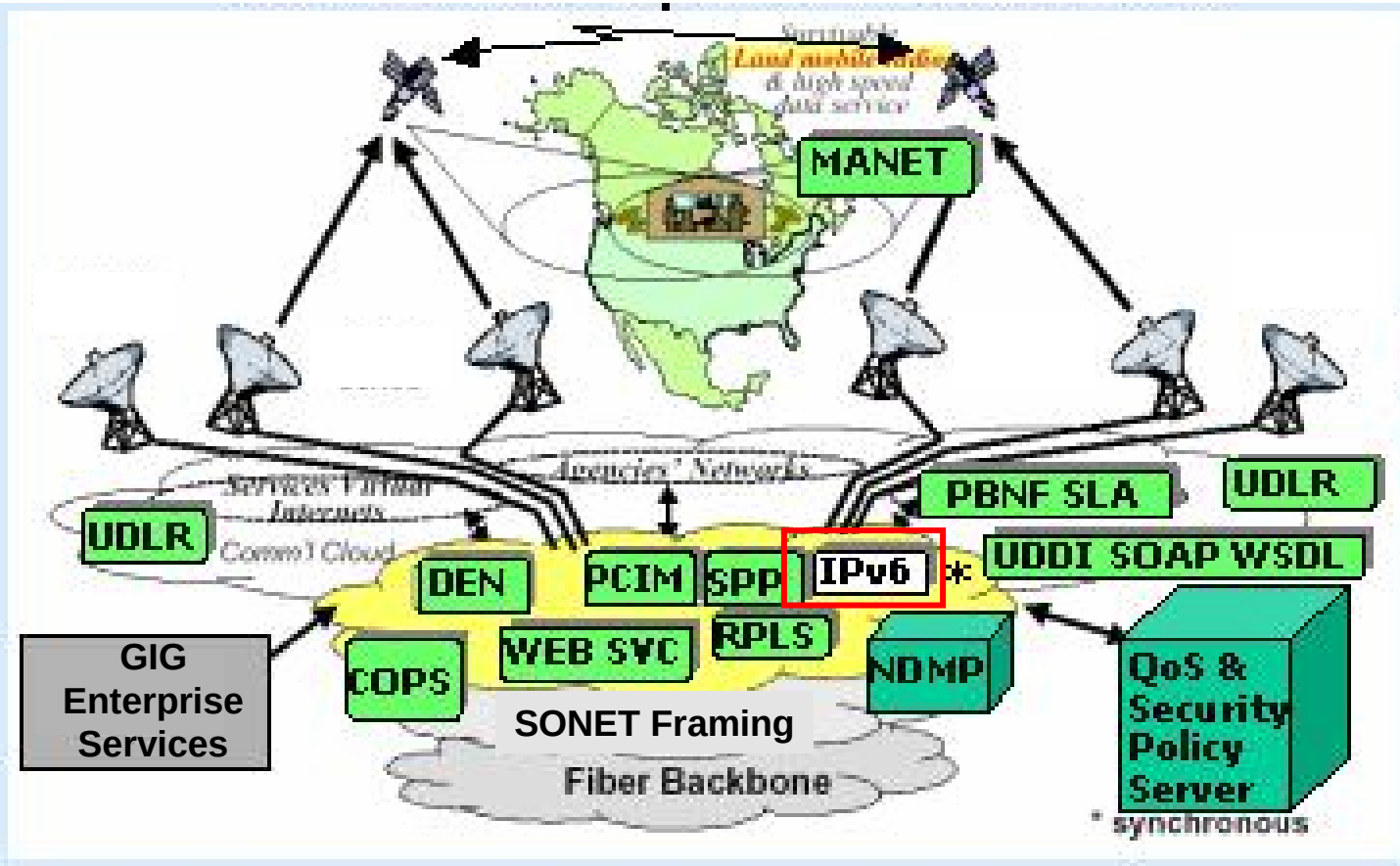


"…leverage information technology and innovative network-centric concepts of operations to develop increasingly capable joint forces. Our ability to leverage the power of information and networks will be key to our success… ."

Deputy Secretary of Defense P. Wolfowitz

- **Reenergize our historical role as an early adopter of IP technology**
- **Accelerate the availability of security technology and devices**
- **Deploy advanced IP services at Gigabit rates over a DWDM fabric space and terrestrial fabric**
- **Deploy a new class of applications which make use of advanced IP services and standards**

Deployment of IPv6 Will Provide Advanced IP Services



Commercial Products Increasingly Incorporate IPv6

DOD IPv6 Implementation Direction

Reenergize our role as an early adopter of commercial IT products

Accelerate the availability of IPv6 capable security products

Address Enterprise issues early via large scale pilots

Execute an aggressive but thoughtful end to end transition



DOD IPv6 Near Term Actions

As of October 2003, all Global Information Grid (GIG) assets being developed, procured or acquired shall be IPv6 capable

The GIG will transition to IPv6 operations by FY08; considerable segments will transition between FY05-07

DISA will acquire, manage IPv6 addresses for DoD; establish an address space and naming convention schema

Specific near-term implementation pilots, demonstrations and testbeds identified within 30 days.

No IPv6 implementations on networks carrying operations traffic within DoD *at this time*.

Development of IPv6 Transition Plan is required within 90 days

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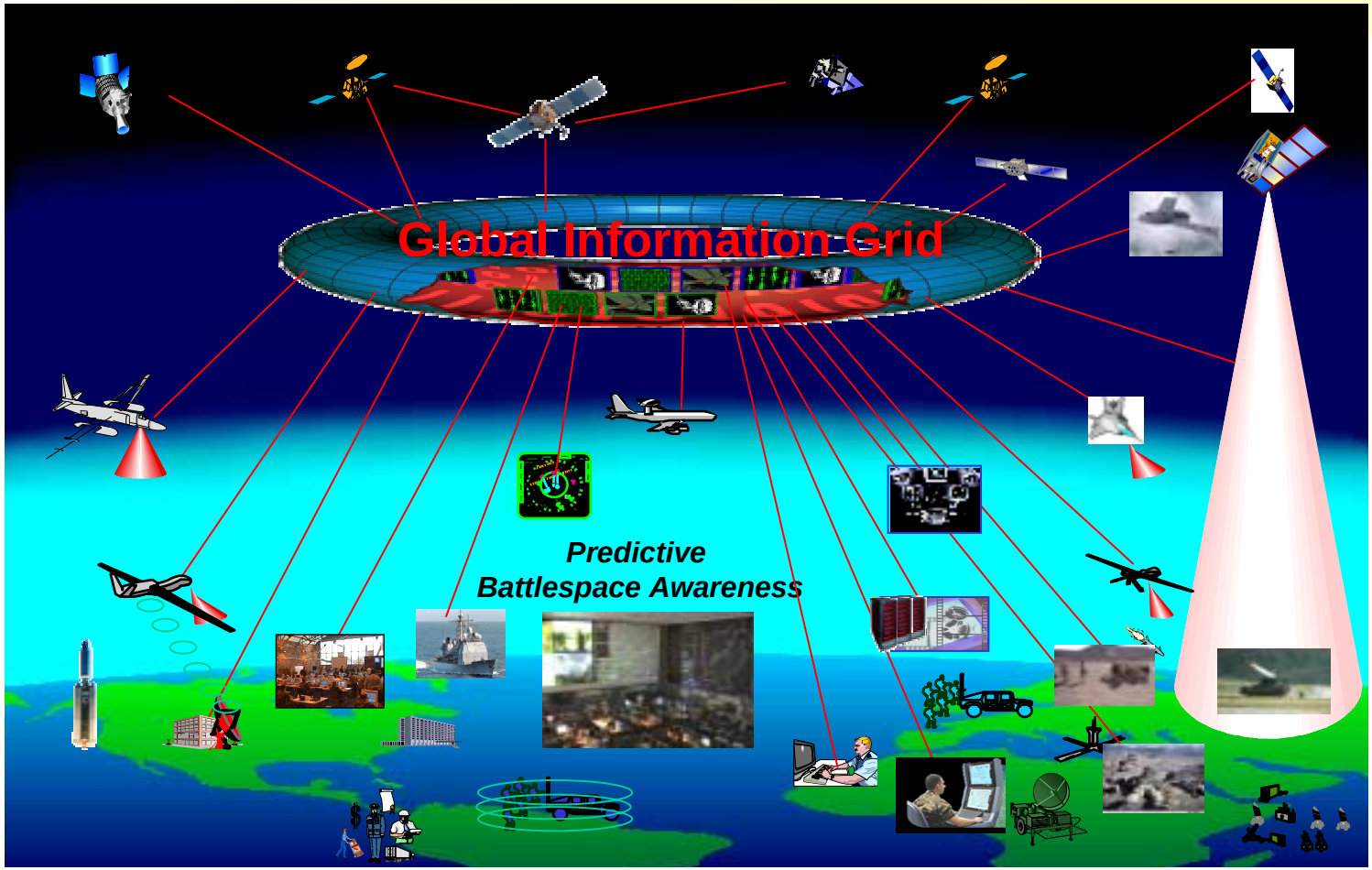
How Can You Assist In Our Transformation?

Providing IPv6 products which:

- **Provide at least the same level of performance and reliability as IPv4 products**
- **Allow us to take full advantage in a standardized way of the improved IPv6 features**
- **Avoid dead-ends: provide for upgrades over time as standards mature**
- **Avoid driving us to sole vendors**
- **Avoid creating interoperability problems**
- **Support end-to-end capability (e.g., IPv6 routers without necessary routing protocols or net management being established)**
- **Provide us with an ability to have confidence in the IPv6 capability we are procuring (e.g., an IPv6 "logo")**

Don't differentiate your product by creating interoperability or security problems...differentiate by its performance!!!

Is There An End State?



It's a journey, not a destination

For Those We Serve … 24x7

