

به نام خدا

نقش دولت در توسعه اکوسیستم رایانش ابری در ایران

مرتضی سرگلزایی جوان جامعہ آزاد رایانش ابری ایران

مقدمه

دکتر کریم مجتهدی (از اساتید فلسفه دانشگاه تهران): "عمده موانع توسعه علمی ما، موانع فرهنگی است و اگر این موانع فرهنگی برطرف شود، راه برای توسعه علمی خودبخود باز می شود."



بحث آزاد

بحث آزاد و بدون موضوع (اتلاف وقت)
 بحث آزاد همراه با تعیین موضوع در جلسه (بداهه)
 بحث آزاد همراه با تعیین موضوع قبلی (BrainStorming)
 بحث آزاد همراه با تعیین موضوع قبلی و ارایه (تصمیم سازی)
 بحث آزاد + موضوع قبلی + ارایه + مستندسازی باز (تصمیم گیری)
 گد بحث آزاد و دریافت بازخورد روی مستندات و تصمیمات قبلی (بهبود)

FASTER 2013

• نمونه فعالیت های در حال انجام بر اساس مدل باز در سطح کلان (در آمریکا)

1.3.1 Faster Administration of Science and Technology Education and Research (FASTER) Community of Practice (CoP)

FASTER, supported by the NITRD NCO, communicates with the White House Office of Management and Budget (OMB) and the Federal Chief Information Officers (CIO) Council concerning IT R&D matters that are of general interest to Federal agencies. FASTER's goal is to enhance collaboration and accelerate agencies' adoption of advanced IT capabilities developed by Government-sponsored IT research. The group is focused on the following strategic themes:

Cloud computing

- Semantic web and ontology technology
- Open government
- Emerging technologies
- Sharing knowledge, ideas, and best practices

FASTER 2014

Faster Administration of Science and Technology Education and Research (FASTER)

Participating Agencies: DARPA, DoD Service Research Organizations, DOE/SC, DHS, NARA, NASA, NIH, NIST, NOAA, OSD, and VA

The Federal CIO Council, under the leadership of OMB, coordinates the use of IT systems by federal agencies. NITRD, under the leadership of OSTP, coordinates federally supported IT research. The FASTER Community of Practice (CoP) is an association of science agency CIOs and/or their advanced technology specialists, organized under NITRD to improve the communication and coordination between the two interagency entities. The primary focus of FASTER is on the IT challenges specific to supporting the federal scientific research enterprise.

Strategic Priorities

The FASTER CoP has identified several themes to promote the use of advanced IT systems in support of science agency research and development missions. Through coordination and collaboration, FASTER seeks to share information on protocols, standards, best practices, technology assessments, and testbeds, and to accelerate deployment of promising research technology. Consensus among the participants determines the focused theme activities. FASTER serves as a bridge between basic research and operational entities, especially in crosscutting domains. The group's activities are focused on the following strategic themes:

- Cloud computing
- Ontology technology
- Wikis and open collaboration
- EarthCube
- Emerging technologies
- Sharing knowledge, ideas, and best practices



FASTER 2015

Faster Administration of Science and Technology Education and Research (FASTER)

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Cloud computing

- Open government: open data and public access
- Accelerated communication

اکوسیستم رایانش ابری

سطح عملیاتی : ۱ تا ۲ سال
 سطح کسب و کار: ۲ تا ۵ سال
 سطح صنعت: ۵ تا ۱۰ سال
 سطح حاکمیتی: ۱۰ تا ۲۰ سال
 سطح جهان بینی (فلسفی) : بیش از ۲۰ سال



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مدل های توسعه فناوری اطلاعات

NITRD (1992~2015)

High-Performance Computing Act of 1991 "Continued United States leadership in high-performance computing."

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1992	2009	2010	2011	2012	2013	2014	2015

NITRD - 2015

Budget Trends by Agency



NIST

DARPA

NSF

30%

3%

NASA

3%

OTHER*

4%

FY 2015 Budget Requests by PCA FY 2015 Budget Requests by Agency



Product <	Agency/ Program Component Area		Cybersecurity & Information Assurance (CSIA)	High Confidence Software & Systems (HCSS)	High End Computing Infrastructure & Applications (HEC 18.A)	High End Computing Research & Development (HEC R&D)	Human Computer Interaction & Information Management (HCI&IM)	Large Scale Networking (LSN)	Social, Economic, & Workforce Implications of IT (SEW)	Software Design & Productivity (SDP)	Total ⁶	
Nome Nome </td <td></td> <td></td> <td>87.9</td> <td>87.4</td> <td>215.6</td> <td>112.2</td> <td>784.8</td> <td>119.0</td> <td>112.6</td> <td>83.7</td> <td></td> <td></td>			87.9	87.4	215.6	112.2	784.8	119.0	112.6	83.7		
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De0 ^{5.1} 1921 62.7 89.8 261.4 101.5 80.5 0.1 14.6 80.2 00 ⁶ 102.6 25.5 307.5 80.1 44.4 60 472.1 00 ⁶ 36.7 7.5 343.2 107.4 72.1 42.2 468.6 00 ⁶ 30.0 15.6 345.2 107.0 124.0 3.0 22.0 468.0 00 ⁶ 20.0 195.0 17.0 122.00 3.0 24.0 57.0 55.6 NH 20.0 195.0 17.0 122.00 3.0 24.0 57.0 55.6 0A89A 228.6 0.0 27.7 7.0 0.0 43.7 3.0 4.0 43.7 3.0 4.0 4.4 12.9 4.0 3.0 4.0 3.0 4.0 4.0 12.7 7.0 4.0 4.0 12.7 4.0 4.0 12.7 4.0 4.0 12.7 4.0 4.0 12.5 <td< td=""><td>NSF</td><td></td><td>102.5</td><td>91.0</td><td>215.5</td><td>128.8</td><td>284.5</td><td>126.2</td><td>122.4</td><td>86.7</td><td>1,157.6</td><td></td></td<>	NSF		102.5	91.0	215.5	128.8	284.5	126.2	122.4	86.7	1,157.6	
book 1 1 2123 1313 62.7 1 6.6 7042 - 22.6 2.5 3075 80.1 - 42.4 6.0 42.1 - 32.6 7.5 342.2 20.7 - 5.66 60.0 - 30.0 15.0 356.6 151.2 - 7.7.1 6.2 6.00			174.6	13.2	80.7	248.3	72.3	109.0	0.1	17.9	716.2	
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NASA Image: marginal system of the system of t	NIST ¹⁰		59.7			5.6		6.8	4.4	4.4		8
NASA Image: mark for the state				17.2	62.7	0.4	17.0	1.0		9.6	107.9	ŝ
Image: book state				13.1	73.2	0.6	17.0	1.0		10.8	115.7	-
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NOAA Image: mode in the image					18.1	0.2	0.5	2.7		0.7	22.2	
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NARA 0.2 0.2												
	NARA											
	Total FY 2013 Actuals ⁶		653.0	149.1	917.9	529.8	695.6	300.9	149.1	172.2	3,567.6	
	Total FY 2014 Estimates ⁶											
	Total FY 2015 Requests ⁶											

حوزه های فعالیت در اکوسیستم رایانش ابری

ارایه سرویس یا محصول (صنعت)

- توسعه دانش و فناوری (صنعت + دانشگاه)

• بستر سازی + مصرف + توانمندسازی (دولت)



مدل برنامه ریزی؟

- لزوم برنامه ریزی در سطح اکوسیستم :
 - و نه یک محصول یا سرویس)



نقش دولت در توسعه اکوسیستم رایانش ابری در ایران

- دولت برای توسعه اکوسیستم رایانش ابری چه کارهایی میتواند انجام دهد؟
 چه کارهایی نباید انجام دهد؟
- راه های کمک به دولت در اجرای طرح های مربوطه کدام است و متقابلا دولت چه کمکی میتواند به افراد فعال کند؟

نقش دولت

- حضور فعال دولت در فعالیت های جامعه رایانش ابری (با مدل باز)
 - تعریف مسائل مورد نیاز (دولت، دانشگاه، صنعت)
 - حمایت از حل مسائل مطرح شده در جامعه توسط دولت
 - (مثال: تامین زیرساخت / ایجاد اعتماد)

