

Data Center Consolidation

How It Supports The PMCoE Community



Background

- Executive Order (EO) 13514 - Federal Leadership in Environmental, Energy, and Economic Performance signed in October 2009
 - Set sustainability goals, for Federal Agencies, that directly or indirectly reduce green house gas emissions including improving energy efficiency in federally owned data centers
- The HHS Sustainability Plan
 - HHS implementation of EO 13514 establishes goals for the department including electronic stewardship and data centers



Background cont.

- The Federal Data Center Consolidation Initiative (FDCCI) announced in February 2010 by former Federal CIO Vivek Kundra
 - Reduces by 800 the more than 2000 Federal data centers through Fiscal Year (FY) 2015
- HHS FY 2011 Data Center Consolidation Initiative (DCCI)
 - HHS will consolidate 38 of 181 data centers through FY 2015
 - NIH will consolidate 32 data centers/server rooms through FY 2015



Background cont.

- NIH Approach to Consolidation
 - Meet the needs of NIH system/application owners and Project Managers
 - Minimize impact to the NIH
 - Look forward where possible



Background cont.

■ NIH ICs Consolidating Data Centers

- NCI
- NHGRI
- NIAID
- NIAMS
- NIDCD
- NIDDK
- NIMH
- CIT
- OD
- OD\ORS

Consolidation by FY		
Fiscal Year	Scheduled	Completed
2010	10	10
2011	5	5
2012	4	0
2013	9	0
2014	2	0
2015	2	0
Total	32	15

- The official list of all federally owned data centers can be found at Data.gov



Supporting the PMCoE Community

- Tools to help you identify data centers that meet your availability requirements

NIH DATA CENTER CLASSIFICATION SYSTEM			
DATA CENTER ATTRIBUTES	Type-1	Type-2	Type-3
	Min Req. Code	Min Req. Code	Min Req. Code
Electrical Infrastructure (Maximum of 46.5 Normalized Points)			
Mechanical Infrastructure (Maximum of 46.5 Normalized Points)			
Power Density (Maximum of 7.5 Normalized Points)			
Physical Security & Asset Protection (Maximum of 30 Normalized Points)			
Network & IT Security (Maximum of 12 Normalized Points)			
Sustainability (Maximum of 7.5 Normalized Points)			

Supporting the PMCoE Community

- Tools to help you do an apples to apples comparison of data centers

NIH DATA CENTER SUPPLEMENTARY DATA	
Deployment Flexibility	
Available ICT Expansion Space (square feet)	_____ SF
Available Infrastructure Expansion Capacity (kW)	_____ kW
Raised Access Floor Height (ft-inch)	_____ ft, _____ in
Clearance Above Floor (w/o obstruction) (ft-inch)	_____ ft, _____ in
ICT Rack Power and Cooling Capability (kW/rack)	_____ kW/rack
Structural Loading Capacity (PSF uniform distributed live load)	_____ PSF
Equipment deployed in H/C aisles	<input type="checkbox"/> No <input type="checkbox"/> Some <input type="checkbox"/> Yes
H/C containment being deployed	<input type="checkbox"/> No <input type="checkbox"/> Some <input type="checkbox"/> Yes
Data center current ATO (NIH determination per "Recommended Security Controls for Federal Information Systems & Organizations")	<input type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High
Number of colocated ICs in the Data Center	_____ ICs



QUESTIONS?



Reference Material

- Executive Order 13514 - Federal Leadership in Environmental, Energy, and Economic Performance
 - <http://edocket.access.gpo.gov/2009/pdf/E9-24518.pdf>
- The Federal Data Center Consolidation Initiative (FDCCI)
 - <http://www.cio.gov/documents/FDCCI-Update-Memo-07202011.pdf>
- The HHS Sustainability Plan
 - <http://www.hhs.gov/about/sustainability/index.html>
 - NIH Environmental Management System (NEMS) - <http://nems.nih.gov/Pages/default.aspx>
- Data.gov
 - <http://explore.data.gov/Federal-Government-Finances-and-Employment/Federal-Data-Center-Consolidation-Initiative-FDCCI/d5wm-4c37>

