The government seeks individual input; attendees/participants may provide individual advice only.

Middleware and Grid Interagency Coordination (MAGIC) Meeting Minutes[1]
November 4, 2020, 12-2 pm ET

Virtual

Participants

David Alexander (Shaw)	Jessica Li (Illinois)
Christopher Algiere (FirstNet)	Miron Livny (UW-Madison)
Lisa Arafune (CASC)	Chris Lowe (USDA/ARS)
Jerryl Bennett (HUD)	David Martin (ANL)
Wes Bethel (LBL)	Kevin (AI Engineering)
Richard Carlson (DOE/SC)	Kristine Martinez (Linkedin)
Dhruva Chakravorty (TAM)	Gabriel Martinez (DHS CISA)
Michael Corn (UCSD)	Dana Mattehws (DOL)
Kristen Davis (NTIA)	Godwin Mbamalu (Benedict)
Martin Doczkat (FCC)	Harry McFadden (Denmark Tech)
Rebecca Faison (Prairie View A&M)	Elizabeth Niswander (UI)
Dan Fay (Microsoft)	Chad Patton (Southside Virginia CC)
Pam Frugoli (DOL)	Donald Petravic (NCSA)
Sharon Broude Geva (UMich)	Angela Peters (Albany State)
Joseph Heaps (DOJ/NIJ)	Lavanya Ramakrishnan (LBL)
Faya Hegeman-Davis (Illinois)	Stefan Robila (NSF/CISE/OAC)
Sash Hier-Majumder (DOE/SC)	Birali Runesha (UChicago)
AJohnson (Shaw)	Yolanda Natal Santos (Microsoft)
Margaret Johnson (NCSA)	Alan Sill (TTU and OGF)
Sridhard Kowdley (DHS S&T)	Kevin Thompson (NSF)
Joyce Lee (NCO)	Wendy Whitcup (USC/ISI)

Proceedings
This meeting was chaired by Richard Carlson (DOE/SC) and Stefan Robila (NSF).

Workforce Development Speaker Series: Industry Perspective

Guest Speakers:

- Anthony Putorek, Senior Workforce Development Program Manager, Microsoft Datacenter Academy

---

[1] Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the Networking and Information Technology Research and Development Program.

- Dr. Chad Patton, Dean of Career and Occupational Technology, Southside Virginia Community College
- Yolanda Natal Santos, Sr. Business Program Manager, Microsoft Leap Apprenticeship Program
- Kristine Martinez, Government Relations Manager, LinkedIn

Anthony Putorek, Microsoft Datacenter Academy

Anthony Putorek works under Data center community development, the philanthropic arm of Microsoft cloud operations and innovation team. Developed programs in our local communities where Microsoft operates its data centers

Microsoft Data Center Academy Program – part of workforce development portfolio of initiatives
Goal: create diverse and localized talent pool of skilled, technical workers in global communities where operate data centers. Prepares workers for jobs in local IT centers, including data centers.

Participants: from high school graduates pursuing certification or technical degree throughout community college to experienced adults seeking to change careers.

Background

Functioning <3 years.

Provided >.5M scholarships, 4M donated equipment.

Partner with local contractors/businesses (contributed over .25M)

Hoping to build data center within the community college. Build stronger communities by investing in people.

5 core pillars
1) Curriculum alignment: map data center skills to industry IT curriculum
2) Scholarships: support historically underrepresented groups in STEM.
3) Datacenter Lab: Donate equipment from data centers for classroom
4) Internship program
5) Mentorship: build network of IT professionals (interview skills, resume building, etc.)

Data Center Pilot Program: Southside Virginia Community College is a recipient

Dr. Chad Patton, Southside Virginia Community College
Microsoft has impacted the college and the southern Virginia Region. Provides a pathway out of poverty.
- Data center made possible through Microsoft. Donated equipment and employee time to set up racks for students' hands on experience. Prior to this, had 3 server cabinets across 10 counties
- Curriculum: creating cloud course with Microsoft
- Scholarships: one of most impactful.

Program participant: Brenda Cross - previously floor manager at Walmart for 20 years, no technical skills.

- Participated in Microsoft classes and internship
- Life-changing experience. Now a volunteer at Microsoft GIVE program.

Yolanda Natal Santos, Microsoft Leap Apprentice Program

Background: Created from Azure Team to augment workforce pipeline. 5 years

Apprenticeship Learning component: on the job learning to address diversity, future talent needs and create career opportunities

16 week program

Candidates: Recruit and interview candidates with passion/grit

- Candidates from a coding academy seeking career change. Tend to be well-educated and have business acumen. 6 months experience
- Returning to workplace (e.g., returning moms with prior experience and college degree)
- Community college students with associates degree in computer science

Learning

Flexible curriculum: 98% conversion rate – Microsoft retains 68% of this talent.

Classroom training:

- Instructor and Linked in learning to deliver educational modules. Engineering teams ensure needs met. While homegrown, adapt as needed.

12-13 week apprenticeship:

- Assigned to team with lead and mentor. Candidate able to see if it is a right fit for them. End with interview for full time position.

Scalability:

- Enterprise customers sponsors in Nigeria and Kenya.
- Scaled domestically and in
- Vancouver BC, Lagos Nigeria, Nairobi Kenya
- Discussions ongoing in Spain
- Will have first candidate in Latin America

Substantively

- Expanded roles in technical and nontechnical side: Launched first business program manager and will continue
- Developing data analyst and cyber security pathway

Apprentice Stories

Linda Curry, Microsoft Program Manager

- Background: Laid off, single mother, previously homeless
- Studied CS at community college , participated in LEAP program
- Started coding at age 30

Contact information: Yolanda Natal-Santos@yonata@microsoft.com

Kristine Martinez Linked In Learning

LinkedIn vision: create economic opportunity for every member of global workforce
- 170k new members daily
- >575M members using Linked in learning platform

LinkedIn Covid-19 Resources
- Various learning Paths: job seekers, recovering from layoffs, remote jobs
- Business Resources, job resources, volunteer opportunities
- Volunteer opportunities

Provide data sets

LinkedIn Workforce Report: breakdown in hiring dips and increases, skill gaps, migration trends

COVID Impact: Microsoft Global Skills Initiative
- Provide data to uncover in-demand jobs and skills
- Access to learning resources to develop skills
- Connect skills to opportunities through certification programs and job seeker tools
- 20M in grants to 7 nonprofits to support additional 5M unemployed. Nonprofits to provide additional 5M unemployed with resources beyond what Microsoft has provided
- LinkedIn Learning Paths – 10 jobs in-demand today and in future (.e.g., software developer)
- Certification Preparation and practice: courses, practice in GitHub

Contact information: Kmartinez@linkedin.com

Discussion

International Expansion:
- Partnering with engineering teams and enterprise customers as they would welcome assistance. Also would help with upskilling and reskilling (e.g., Spain)

Approach in developing community relationships - Microsoft Data Center Academy Program (https://datacenteracademy.microsoft.com)
- Program began as a pilot program due to need in rural communities for skilled IT workforce. Approached community colleges regarding programs offered and needed. Discussed with data

center leaders regarding skills needed. Community colleges eager to work with Microsoft to develop skills for entry level positions.

- Pilot programs success made it a key initiative.
- Programmatic approach to develop value for college: outreach to community leaders through sessions with local stakeholders to introduce our program and explore interest in participating. Clarify goal to service community by building a diverse workforce pipeline overall, not for Microsoft.
- Program builds soft skills as well as technical skills (work ethic, conflict resolution).
- Scholarship: covers all costs. Changed lives and communities.
- Curriculum: Advised, not develop curriculum. Work with colleges regarding relevant programs and how to use donated equipment. Bring data center technicians for training. Develop train-the-trainer programs, as needed and at no cost to college. Deliver industry-needed certification programs in rural communities.
- Southside
  - Demographic shift: Diversity in Southside IT program has tripled although program has existed for years; previously mostly white males. Female participation has doubled over 4-5 years
  - Build in certifications

Data center sites:

- While addresses not published, there are data centers in Southern VA, Quincy, WA; Dublin, Ireland; Des Moines, IA; Sweden, South Africa and the Netherlands.
- Currently focused on data center communities; not seeing to expand at this time.

Servers in data centers are generally equipped with small auxiliary processor and standards or talking to processor have undergone rapid development and modernization. Potentially build small scale kits using latest automation standards to show students how data centers are run?

- Hardware donations are decommissioned
- Can discuss offline

Department of Labor Community College grants

- Virginia community colleges: received DOL tax grants.
- Approximately 2B investments. Many colleges participate in nationwide consortium focused on developing curricula, focusing on high growth jobs. All developed curricula is available at www.skillscommons.org.

American Broadband R&D Team

- NTIA announced new digital inclusion section in Broadband USA website – very important in light of pandemic and lack of broadband access for rural and urban populations. www.broadbandusa.ntia.doc.gov/digital_inclusion

Announcements

- **Potential campus pilot program-** Potential implementation by university centers. Challenge is to how to get the right people. Similar methods that can be utilized. POC: dan.fay@microsoft.com

- **December, 3, 7 and 10th:** Department of Labor Workforce Advisory Council Public Meetings make recommendation to Secretary of Labor and share information on new approaches, and new technologies and data to inform employment and skills training in workforce and economic development decision making and policy choices. Kevin Thompson will send link.

- **November 2nd week Department of Labor National apprenticeship week,** 6th annual event. 345 registered events and proclamations. See DOL website for nationwide events. (www.apprenticeship.gov/national-apprenticeship-week

- NSF Campus Cyberinfrastructure (CC*) project: **Building Research Innovation at Community Colleges –** focus is computing enablement and adoption at 2-year and smaller schools. See www.u.tamu.edu/briccs. Each Wednesday morning at 10 a.m. ET. Pilot implementations in Texas and hope to scale this community nationally. POC: Dhruva Chakravorty, chakravorty@tamu.edu

- **July 2021, PEARC 21**: ACM-sponosored conference. 800+ registrants last year. Notices for participation as reviewers is forthcoming.

Next Meeting

December 2 (12 p.m. ET)