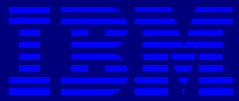


Welcome to IBM

50 Years in NC

Great Minds coming together for a Smarter Planet

R E S E A R C H • T R I A N G L E • P A R K



Agenda

Welcome, Introductions, Agenda

Rick Helfer

IBM in NC

Bob Greenberg - VP and State Executive

Smarter Government

Curtis Clark - Global Govt Programs

Green Solution Center Technology

Don Roy – IT Specialist

Break and Photos

Security/Cyber Security

Pete Allor - Govt Security Strategist

Watson Next Gen of Computing

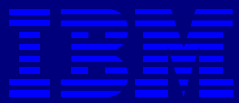
David Sink - Watson Analytic Services

Wrap up, Citizen Blog

Rick Helfer – Client Leader

- 
- An aerial photograph of the IBM Research Triangle Park (RTP) Main Site. The image shows several large, modern, white industrial-style buildings with flat roofs and extensive glass facades. The buildings are surrounded by green lawns, trees, and parking areas. In the background, more industrial buildings and a forested area are visible. A green semi-transparent box is overlaid on the right side of the image, containing a bulleted list of facts about the site.
- Began Operations in the Triangle in 1964
 - 765 acres of total property area
 - Occupies over 3M Sq ft in 31 Buildings in RTP Area
 - 100,000 Sq ft Gold LEED certified Data Center – Cloud Delivery Services
 - All IBM Business Units represented in RTP
 - Over 500 companies visit our site each year

IBM RTP Main Site

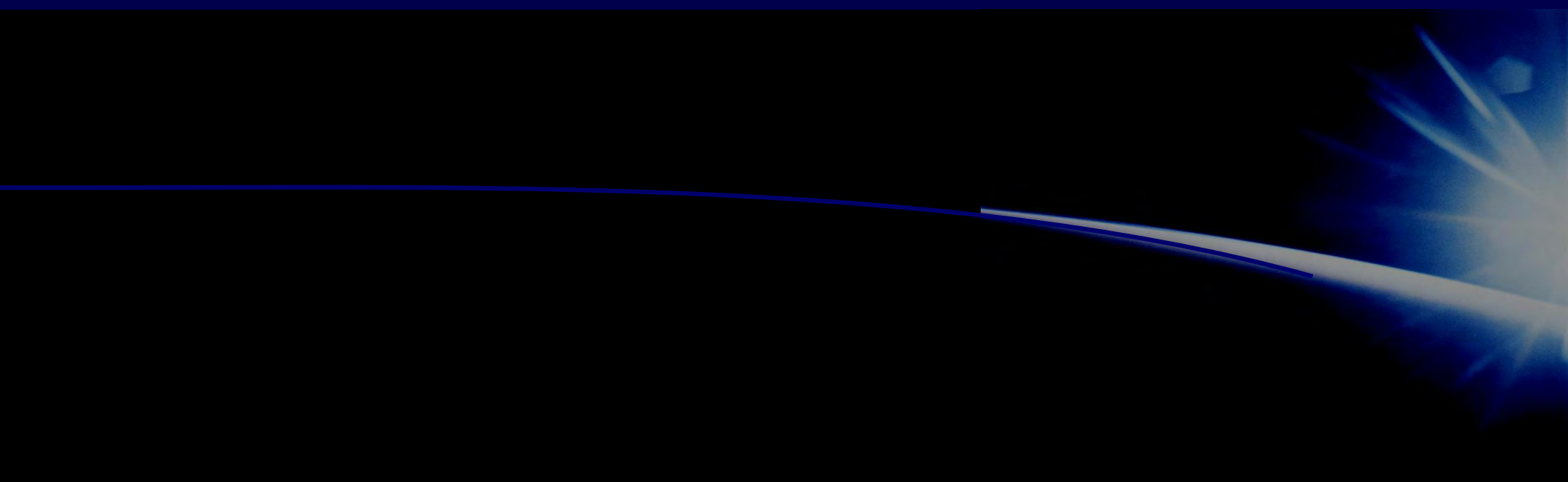


IBM in North Carolina

- IBM locations in RTP, Charlotte and Greensboro
- Largest industrial employer in NC
- RTP is largest IBM site in North America
- **Impact in North Carolina**
 - 30,000 employees and retirees in NC
 - \$3.4 B in total N.C. economic impact annually
 - \$11.5M donated to area universities and colleges
 - NC State is largest single recruiting source for IBM
 - Total charitable contributions of nearly \$4M annually and 500,000+ service hours



IBM Appendix

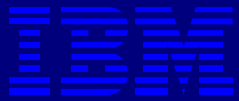




IBM in the Triangle

IBM Main Site





IBM as Corporate Citizen

- Education

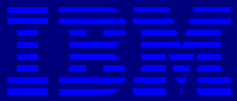
IBM donated more than \$11.5 million over the past five years to area universities and community colleges through the RTP Center for Advanced Studies and IBM university relations programs.

- Service

In 2013, a total of 19 IBM service grants, valued at \$597,000 were awarded to nonprofit organizations, K-12 school systems, and institutions of higher education in North Carolina.

- Environment

Greater Raleigh Chamber of Commerce recognized IBM as a Leading Sustainable Business within the State of North Carolina.

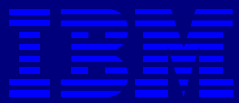


IBM as Corporate Citizen - Education



The IBM KidSmart Early Learning program integrates interactive teaching and learning activities into pre-kindergarten curricula to help children learn and explore concepts in math, science and language.

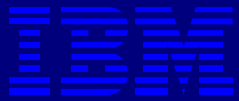
- EWeek: Hundreds of employees visit thousands of students throughout NC.
- Transition to Teaching: IBM employees pursue second careers in math/science instruction.
- TryScience: Award-winning Web site for students and teachers (www.tryscience.org).
- MentorPlace: IBM online mentoring for middle school students.
- IBM donated more than \$11.5 million over the past five years to area universities and community colleges through the RTP Center for Advanced Studies and IBM university relations programs.



IBM as Corporate Citizen - Service



- IBM Services Grants help educational and nonprofit organizations to enhance their IT infrastructure, and leadership and technology skills. The grants provide consultations with IBM experts and access to IBM technology.
- In 2013, a total of 19 IBM service grants, valued at \$597,000 were awarded to nonprofit organizations, K-12 school systems, and institutions of higher education in North Carolina.

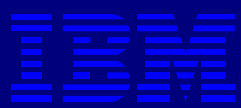


IBM as Corporate Citizen- Environment

- Greater Raleigh Chamber of Commerce recognized IBM as a Leading Sustainable Business within the State of North Carolina.
- IBM RTP was also recognized by the North Carolina Technology Association as the state's Leading Environmental Steward.
- IBM's environmental programs and 130 Green Teams develop programs that conserve natural resources, maintain compliance with environmental regulations, and operate as environmentally conscious neighbors.

IBM Research Triangle Park (RTP) is accredited by the Wildlife Habitat Council (WHC) as a certified wildlife habitat. This distinction recognizes IBM's efforts to preserve and enhance native site habitats for flora and fauna. The site is also a Corporate Lands for Learning which is a partnership between WHC and industry to teach local students about nature and the environment.

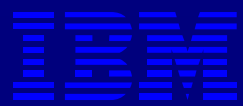




IBM as Technology Partner – Mecklenburg Co.

- IBM awarded Mecklenburg County a Smarter Cities grant to analyze the feasibility of integrating capital master planning across multiple jurisdiction areas.
- IBM services reviewed parks, greenways, trails, recreation centers, libraries, schools, college campuses, residential and commercial developments, government facilities, transportation corridors, pedestrian and bicycle routes and watersheds to determine how these groups would benefit from an integrated capital plan.

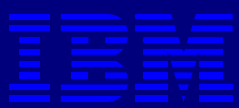




IBM as Technology Partner – Durham

- IBM awarded the City of Durham a Smarter Cities grant to address the disparity of educational achievement and economic opportunity for its youth.
- Through the Smarter Cities Challenge, IBM is partnering with the City to develop data-driven strategies to identify service gaps and enhance coordination amongst service organizations to ensure all youth have an opportunity to succeed and become positive contributing members of the community.





IBM as Technology Partner – NC State University

One of the first true clouds ever developed,
specifically designed for education and research

- VCL project planning started in 2002-2003
- NCSU production use started in 2004
- Support for both HPC & non-HPC workloads
- Awards incl. Computerworld Honors Prog. Laureate
- Currently NCSU VCL
 - Open to 40,000+ NCSU student & faculty, as well as 250,000+ in NC
 - 2,000+ Blades in production
 - Delivers over 500,000 CPU hours to general reservations (desktops, sub-clouds, classroom, etc.) annually & over 13,000,000 HPC CPU hours
- VCL sites in US include NC Community College System, many UNC System universities, VA VCL (GMU, ODU, VA Tech, NSU, etc.), GSU, UMBC, MSU, GSU, TSU, Southern, Cal State System, etc.
- User sites outside US include Canada, Japan, China, India, Middle East, Eastern Europe, etc.

A partnership with IBM & others to develop a cloud computing solution specifically targeted for education & research



Substantial support from IBM for VCL development through SURs, CAS Faculty Awards, & BladeCenter / SWG development



WebSphere Technology Institute assisted in the creation of the VCL Apache project



IBM Smart Cloud for Education: VCL solutions include GBS VCL Quickstart Services, etc.

NC STATE UNIVERSITY



Dr. Mladen Vouk, “the father of VCL”

Professor and Head of Computer Science Department, and Associate Vice-Provost for Information Technology, North Carolina State University, Raleigh, NC

