

Wireless and Mobile communications at The George Washington University

Bret Jones

**Director of
Technology Engineering**

**The George Washington
University**

INFORMATION
SYSTEMS &
SERVICES



total GW





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Agenda

- **Overview of the George Washington University**
- **Strategic Goals and Themes**
- **Continuity of Operations**
- **Customer Service**
- **Where to find more information**
- **Questions / Discussions (and hopefully Answers)**



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Overview of the George Washington University

- **Founded in 1821** and chartered by the United States Congress, the George Washington University is the largest institution of higher education in the nation's capital.
 - Though the University is more than 180 years old, it continues to generate creative energy, breaking down the boundaries between disciplines and the divide between academia and the world at large.
- **Location: Main campus is located in the heart of Washington, D.C.**
- **More than 110 buildings, including 22+ residence halls, on 43 acres** near the White House, federal agencies, national galleries and museums, and the John F. Kennedy Center for the Performing Arts.



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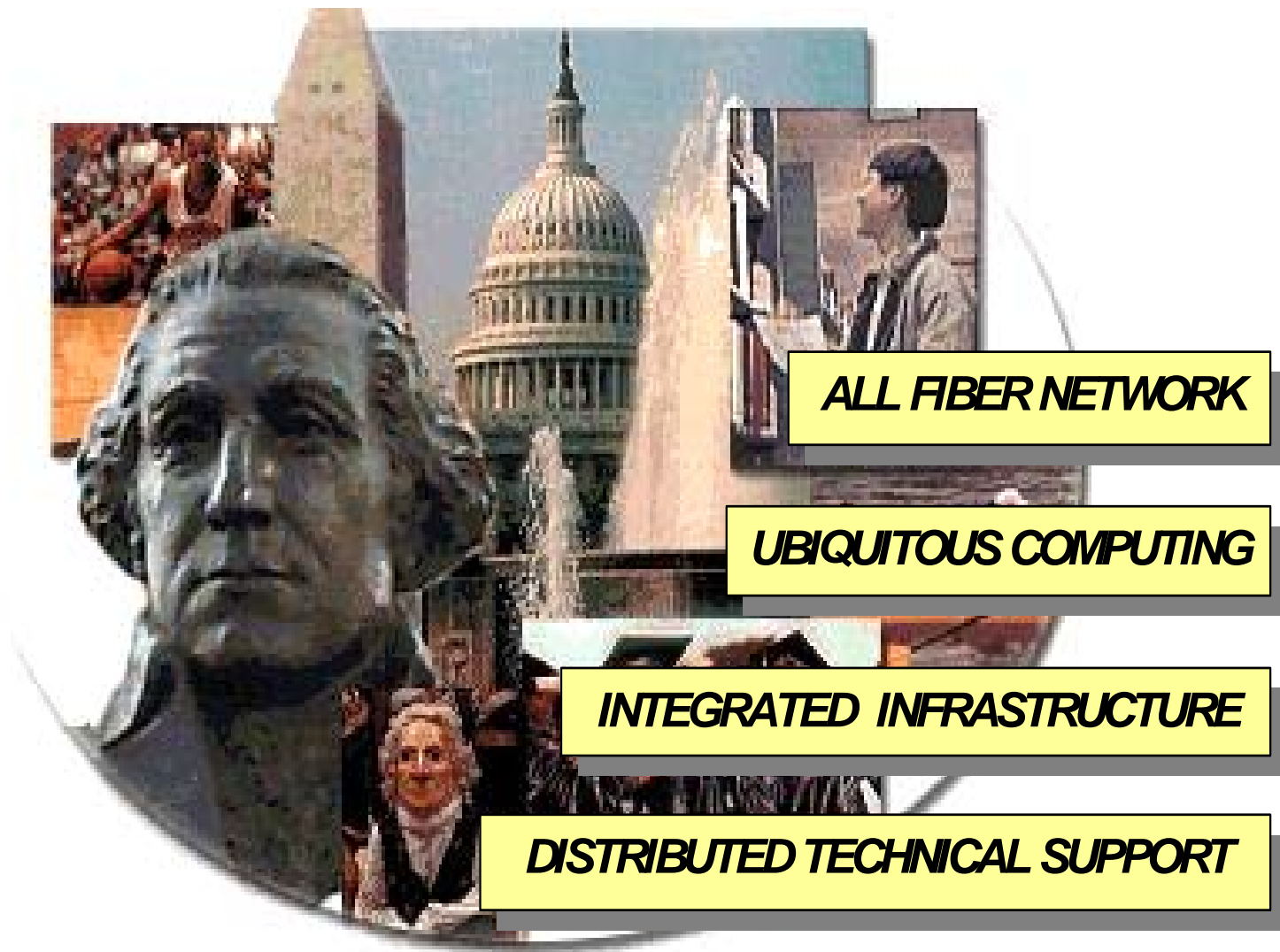
GW Community Overview

- **Students:** The past year's enrollment totals 22,184 of which 9,523 were undergraduate students, 11,038 were graduate and professional students, 1,623 were non-degree students, 3,702 were students enrolled at off-campus sites, and 547 were enrolled at the Virginia Campus.
- **Faculty:** GW has 1,032 full-time faculty members. In addition, the institution has a distinguished part-time faculty drawn from the large community of scholars concentrated in the Washington area—including many from government agencies, medical and research centers, and the city's international community.
- **Alumni:** At present, more than 150,000 people — living in the 50 states, the District of Columbia, and all around the globe—were educated at The George Washington University. Among these alumni are numerous prominent public figures, including senators, congressmen, military personnel and diplomats serving abroad as U.S. ambassadors and in other embassy posts.



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IT at GW



GW Communications Technology Overview



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- **GW developed a comprehensive technology blueprint in the late 1990s** to ensure continued standing as a top-rated Tier 1 institution and attest its creative energy in campus operations
- The plan envisions **GW's technology infrastructure as a strategic asset** designed for differentiated computing and communications capabilities well into the future.
 - Key requirements called for highly flexible and scalable technology platforms to rapidly accommodate new applications--all without increases in operational expenses.
- Founding member of the Mid-Atlantic Crossroads (MAX); a multi-state regional metapop for Internet 2 aggregation with U. Maryland, Georgetown U., and Virginia Polytechnic Institute and State U.
- 1.3 gbps commercial internet connectivity
- 1 gbps of Internet 2 connectivity
- 16,000+ data connections
- 14,000+ voice connections
- 30,000+ users



High-Level Goals

Three ISS Goals:

(from the GW Strategic Plan for Academic Excellence)

1. Top-tier Technology and Services:

Direct support of GW Strategic Goals

Strong electronic campus community

Plus other GW at large needs...

2. World-class Process Efficiencies:

Promote internal process improvement...

Keep operating efficiencies high

Keep cost margins low

3. A Tailored Path to Excellence:

Flexible, customizable, self-service IT environment

To *all* GW constituent groups

Individuals tailor *own* IT needs to achieve academic excellence



ISS Plan Themes

Five ISS Themes:

- **Easy Access to Information and Services:**
(Web and portal-based services, high-speed and wireless network access)
- **Information/Knowledge Management:**
(Data base, data mart, content management, and knowledge management tools)
- **Efficiency and Process Improvement:**
(Process re-engineering, automated workflow services)
- **Sustainability:**
(Operations, production control, lifecycle management, maintenance, security, business continuity services, etc.)
- **Customer Satisfaction/Awareness/Utilization:**
(User/constituency communications, mutual ISS-GW education, expanded metrics)



Continuity of Operations

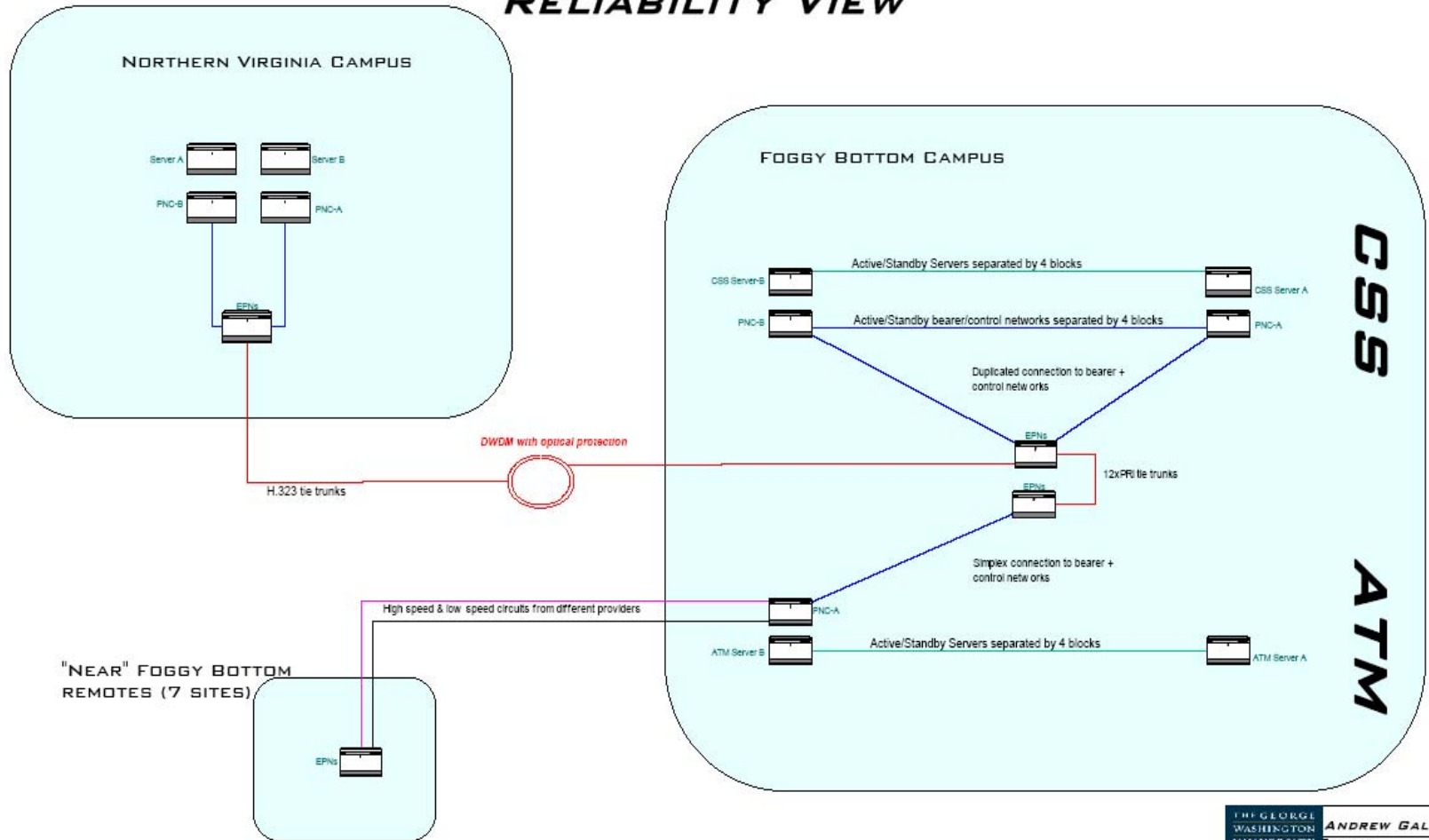
GW is acutely concerned with Continuity of Operations as a result of its geographical location in downtown DC. One aspect of responding to this is the ability to support virtual operation. Currently GW has deployed several solutions in support of this need:

- **Robust distributed communications infrastructure**
- **Lab environment for development, testing, and hot spares**
- **High availability and fail over systems for voice and data**
- **Blackberry communications for critical personnel**
- **Multiple layers of security**



Continuity, Not Recovery

RELIABILITY VIEW



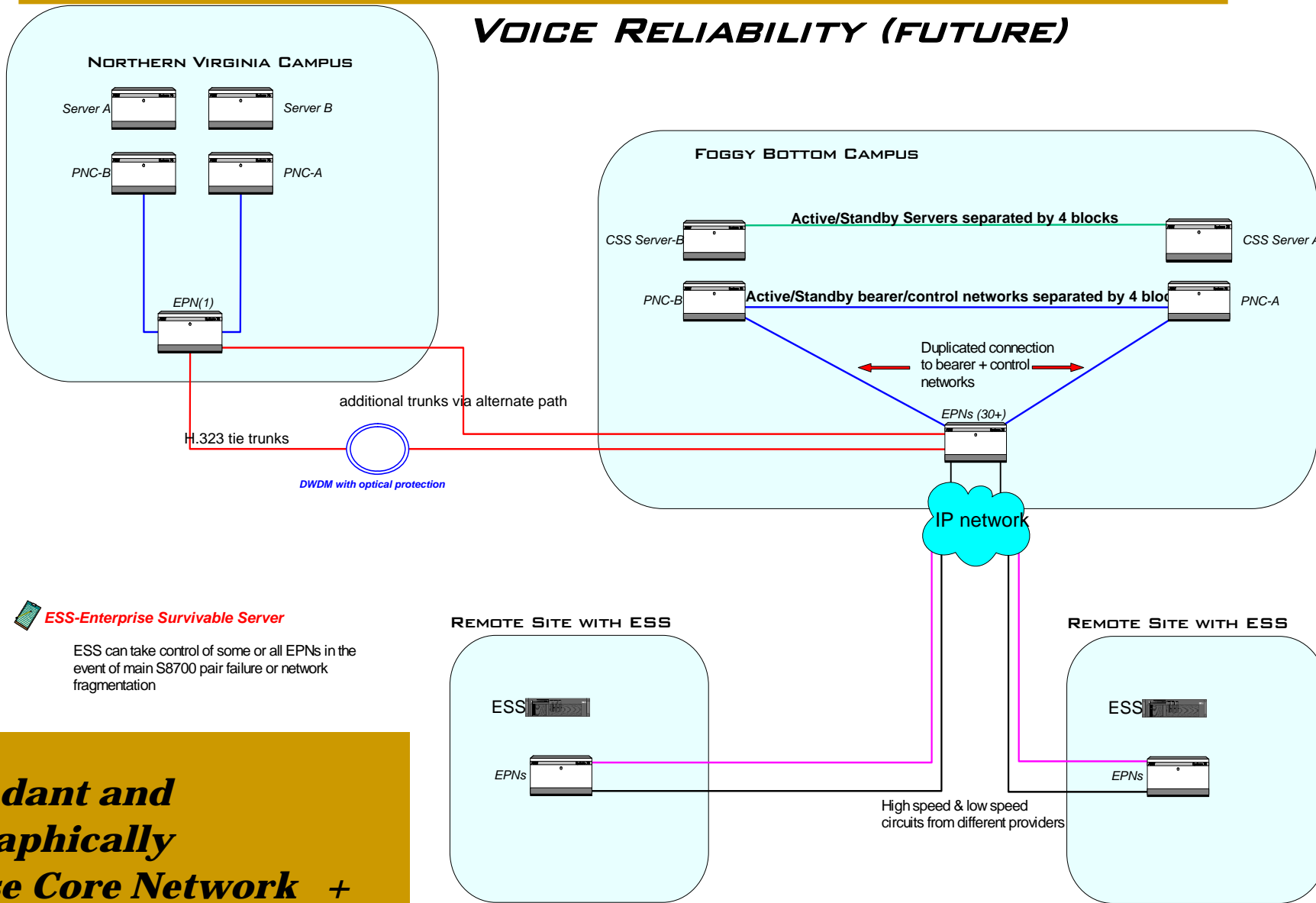
THE GEORGE WASHINGTON UNIVERSITY WASHINGTON DC	ANDREW GALLO	PROJECT
Diagram	RELIABILITY VIEW	Rev A
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Continuity, Not Recovery continued...

VOICE RELIABILITY (FUTURE)



ESS-Enterprise Survivable Server

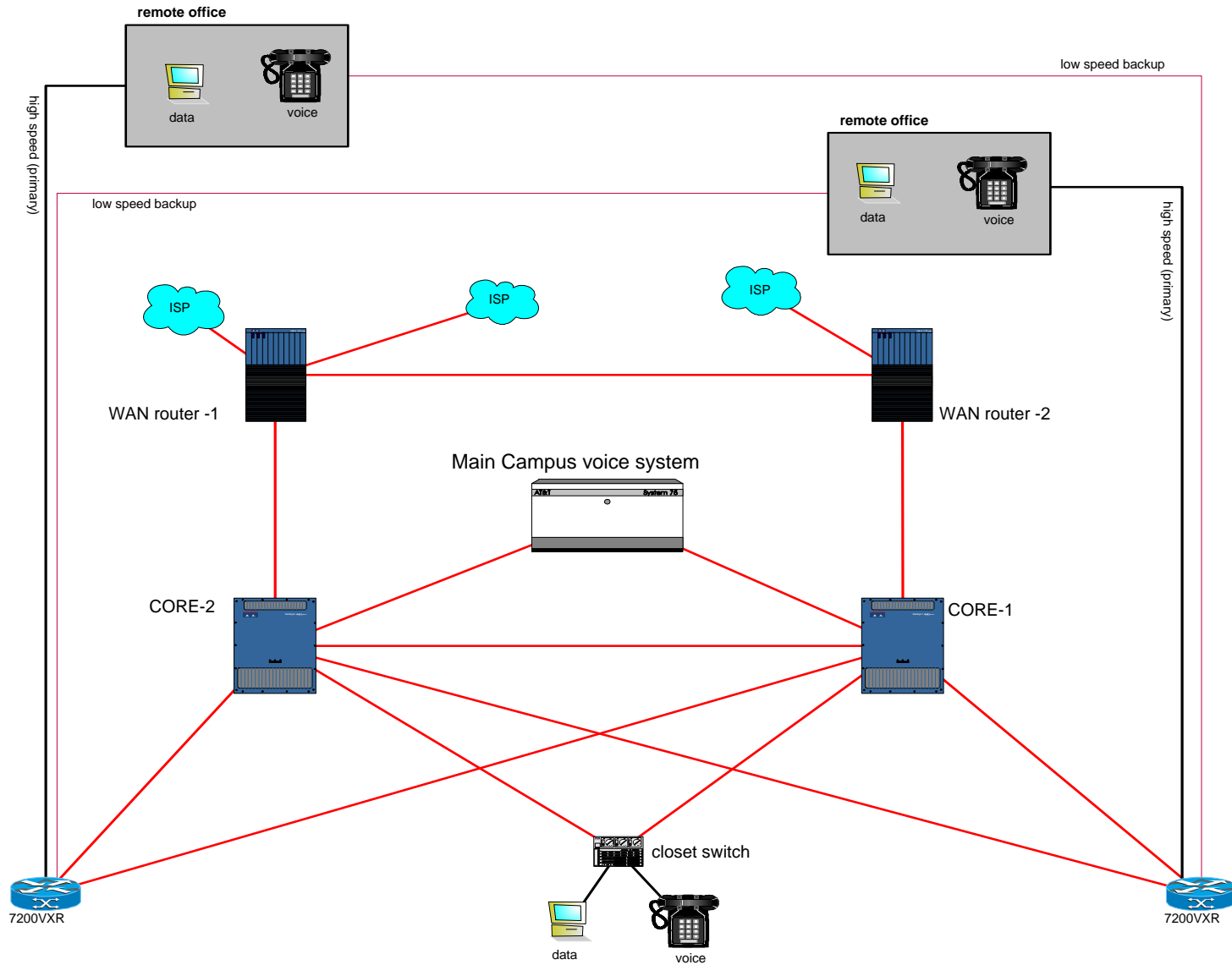
ESS can take control of some or all EPNs in the event of main S8700 pair failure or network fragmentation

Redundant and Geographically Diverse Core Network + Distributed Applications



Continuity, Not Recovery continued

REMOTE OFFICE REDUNDANCY





Customer Service

GW places a high value of providing excellent service to its customers (students and parents) and employees. As an urban campus based school, students and faculty constantly roam the campus and surrounding environment. Access to University applications from wherever a user is, is very desirable. GW currently has deployed a number of mobile access solutions in support of this need. Currently in use are:

1. Blackberry devices for Executive Administration
2. Avaya IP Soft phones for nomadic workers, e.g., Tele-workers, employees that roam between campuses
3. Integration with cellular services (Avaya Extension to Cellular) including a pilot of new Avaya one-X Mobility Solutions that enables easy menu access to selected features of Avaya Communication Manager, such as Conferencing, Transfer,...etc
4. Wireless networking in common areas, classrooms, and libraries.
5. Web enabled access to University applications via IP Network



Customer Service continued...

Currently implementing, investigating, and evaluating:

- Unified messaging, i.e., voice mail into email
- Centralized wireless network management system
- Public Wireless access for conferences and visitors
- Mobile access to applications such as courseware and student registration.
- GSM /802.11 mobile to cellular devices
- Voice portals
- Speech Access



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Challenges

- Security
- Device compatibility
- Customer support
- Priorities
- Return on Investment (ROI)
- Total Cost of Ownership (TCO)
- Killer App



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More Information...

- <http://www.gwu.edu>
- <http://www.maxgigapop.net>
- <http://www.avaya.com>

Contact Information:

Bret Jones

Director of Technology Engineering

The George Washington University

801 22nd Street NW, Suite B148L

Washington, DC 20052

Phone: (202)994-5548

Fax: (202)994-5551

Email: Bret@gwu.edu



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Questions / Discussion?



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