



Virginia Information Technologies Agency

Transition From Virginia Interactive

Transition Webinar

October 2012

Authors

VITA

SiteVision

CyberData

BroadPoint

AIS



Hosting

O & M



Hosting topics include:

- Network
- Server performance
- Backups
- Patches
- Outages



Operations and maintenance topics include:

- User account
- Functionality
- Database structure
- Look and feel
- Content



eGov Contracts

Hosting contract allows for the following services:

- Hosting network and hardware
- Hosting environment and security
- Hosting migration support
- Hosting OS maintenance (ie. patching) and support
- Hosting help desk support
- Hosting environment monitoring

Operations & Maintenance contract allows for the following services:

- Application O&M (i.e. custom developed or third party applications)
- Application software O&M (i.e. application server software)
- Database O&M
- Bug fixes, patching and troubleshooting
- Enhancements and development



O&M Contracts

- Use for:
 - Maintenance and support for websites and Web applications
 - Maintenance of already existing payment processing application
 - New payment processing application development where supplier will maintain the application
 - New Web development when the agency has an existing contract with an O&M supplier and the supplier will be providing maintenance for the new application.



Hosting Contracts

- Governance
 - Criteria for governance can be found at <http://www.vita.virginia.gov/scm/default.aspx?id=6442470337>
 - Adhering to security compliance and SEC501
 - Suppliers have specific SEC501 questions they must address to ensure adherence
 - Based on services not available from the Northrop Grumman Partnership
 - Strategic benefits to be achieved for the agency through the use of the contract



Hosting Options

- **Support options:** Managed or unmanaged environments
- **Infrastructure options:** Shared or dedicated environments
- **Cloud options:**
 - **Public cloud** – test/dev sandbox, no production
 - **Public/private cloud** – websites and Web applications, comply with COV standards, and quick setup
 - **Private cloud** – outsourcing, transactional environment, comply with COV standards.



Hosting Options (Support)

- **Managed:** Hosting provider manages server and routine maintenance.
 - Administers patches and updates
 - Monitors network connectivity
 - Monitors security
 - Monitors hardware performance
 - Upgrades infrastructure equipment
 - Maintains the application software
 - Maintains a secure environment
 - Manages the hardware, bios, drivers etc.
 - Delegates critical infrastructure to hosting experts
- **Unmanaged:** Agency is responsible for all aspects of server operating system maintenance.

*All hosting services can potentially be 'managed.' The managed services vary greatly since different levels and options of technical support is provided.



Hosting Options (Infrastructure)

- Shared hosting
 - Smaller sites, less performance, lower cost
- Dedicated hosting
 - Leasing complete server, more performance
- Virtual private server (VPS)
 - A server in a software environment, scales well
- Co-location server (Colo)
 - Customer owns server, paying “ping, power, pipe”

*Various options/configurations on all above.



Hosting Options (Cloud)

- Additional details around cloud options can be requested.
- Benefits of the cloud
 - Scalability – as your needs grow, we can add storage and computing capacity to your cloud.
 - Cost effectiveness – your cost per virtual machine drops as you add more VMs.
 - High availability – ensured by both virtual and physical redundancy.
 - Choose private cloud to get all cloud benefits plus maximum security and performance.



Service Differences

| | Shared | Dedicated | VPS | Cloud | Co-Lo |
|-------|------------------|--|---|---|----------------------|
| What | Server is shared | Server is all yours | Cross between shared and dedicated | Infrastructure as a service | Space and power |
| Costs | \$ | \$\$\$ - \$\$\$\$ | \$\$ | \$ - \$\$\$\$ | \$\$ |
| Pros | Inexpensive | Most secure and control | More flexible than dedicated | The most flexible. private cloud has many dedicated benefits. | Flexible |
| Cons | Less control | Less flexible, scaling adds hardware | Less desirable for highly custom or DBs | Less desirable for highly custom or DBs. Non private clouds least secure. | Must manage yourself |
| Who | Small Sites | Custom, DBs. Mid – large sites and apps. | Small – Mid apps and sites. | All sizes. Apps and sites. | Large – Very large |



Data Center Tiers for Hosting Providers

The tiers are the the requirements for “each level” of data center infrastructure.

Tier One

- Basic site infrastructure with expected availability of 99.671 percent
- Single non-redundant distribution path with non-redundant capacity components
- Planned work and outages will require most or all of the site to be shut down



Data Center Tiers for Hosting Providers

The tiers are the the requirements for “each level” of data center infrastructure.

Tier Two

- _ Meets or exceeds all Tier 1 requirements
- _ Redundant site infrastructure capacity and single, non redundant distribution path with expected availability of 99.741 percent
- _ Redundant capacity components can be removed without causing any computer equipment to be shut down, but removing distribution paths does require shut down.



Data Center Tiers for Hosting Providers

The tiers are the the requirements for “each level” of data center infrastructure.

Tier Three

- Meets or exceeds all Tier 1 and Tier 2 requirements
- Concurrently maintainable site infrastructure with expected availability of 99.982 percent
- Multiple independent distribution paths, but only one path required
- Equipment is dual-powered and fully compatible with the topology of site's architecture
- Each and every capacity component and element in the distribution path can be removed from service on a planned basis



Data Center Tiers for Hosting Providers

The tiers are the the requirements for “each level” of data center infrastructure.

Tier Four

- Meets or exceeds all Tier 1, Tier 2 and Tier 3 requirements
- Fault-tolerant site infrastructure with electrical power storage and distribution facilities with expected availability of 99.995 percent
- Fault-tolerant with multiple, independent, physically isolated systems that provide redundant capacity components and multiple, independent, diverse, active distribution paths simultaneously serving the computer equipment. Independently powered Cooling and power provided after infrastructure failure.



Hosting Considerations

- Security
- Costs
- Manpower
- Predictability
- Usage
- Customizations
- Uptime
- Support
- Services, deployment, licensing, flexibility
- Data sensitivity



Hosting Considerations (Cont.)

The following are examples of questions that agencies should consider:

- How many environments are needed? Production, testing and development?
- Require dedicated, VM or cloud environment?
- Are traffic trends highly volatile or consistent?
- Who owns the domain?
- Who is currently maintaining your site?
- Content - How many static / dynamic pages?
- Records retention requirements
- Payment processing, eCommerce, Web services needs?
- What types of users will be accessing your content, site and applications?
- Will there be sensitive data?
- Require high availability / redundancy?
- Require disaster recovery?
- What type of backup and frequency is required?
- Will your hosted environment need ongoing content management and updating?
- Will your hosted environment need software OS and application server patch upgrades and other maintenance?
- Would additional performance and security monitoring services and alerts benefit your agency?
- What additional development needs does your agency have in the future? Please describe.



Information Needed to Transition

- Current apps, databases, etc.
- Operating system
- Usage
- User statistics
- Bandwidth consumption/traffic
- Current hardware information



AIS Network

- We are hosting experts – that is our only focus
- Founded in 1993 and a pioneer in the industry hosting mission-critical applications and websites
- We can create custom solutions to meet your requirements
- Expect 100 percent network availability backed by seasoned technical engineers and industry-leading SLAs
- Tier III and Tier IV (highest level) data centers.
- We secure and care for your servers 24x7x365 in world-class, disaster-resistant facilities
- SSAE 16 audited, giving you confidence and peace of mind
- Compliant solutions for SOX, HIPAA, PCI
- ISO 27002/FISMA/HIPAA-HITECH compliance in Q4 2012
- SPLA license provider



BroadPoint Technologies, Inc.



•Certified Project Managers
•PMBOK Compliance



OPERATIONS AND MAINTENANCE

- Keep the application running - accessibility
- Ensure the application does what it should - performance
- Ensure the data is correct
- Apply patches and vendor changes
- Resolve break-fix issues
- Maintain strong alliance with the hosting firms to work complex problems
- Deliver web site content activities
- Provide application trending information
- Ramp up for high activity periods
- Manage strong collaboration between our Help Desk and VCCC – fix it right the first time and fast
- Provide testing and quality assurance
- Perform adaptive, preventative and assistive maintenance

ENHANCEMENTS

- Create/improve dashboards and management reports
- Deliver updates and improvements
- Accommodate mandate changes
- Deliver and maintain payment portals, purchasing systems, fee-for-service actions
- Add integration to other systems and applications
- Find the best solutions for new needs that minimize long term cost and maximize capability and performance
- Improve citizen transparency
- Improve flexibility and capability of your systems – for internal and external customers
- Develop/improve web portal operations
- Provide data modeling and improvements

ABOUT BROADPOINT TECHNOLOGIES

- Over 12 years of success
- Over 400 clients: state and local government, Federal, other public sector and commercial
- Almost \$20M in revenue annually
- Expertise in multiple technologies
- Over 20 clients in Virginia
- Functional areas include financial management, supply chain, CRM and related areas
- Certified gold partners with Oracle and Microsoft; other partnerships as well
- Small business & VA SWaM-certified
- Flat organization – you have direct contact with our leadership
- Manage projects using CMMI, ISO, IEEE and PMI standards and practices



CyberData Capabilities



CyberData is the only firm to win both Hosting and Application O&M contracts, enabling us to provide an integrated solution and seamless communication.

HOSTING

- Tier III and Tier IV data centers
- SSAE 16 and ISAE 3402 Certified
- PCI, FISMA, SOX, HIPAA Compliant
- Cutting edge network
- Cloud and COV domain environments
- Top industry SLAs
- Geographic and physical redundancy
- Load balancing
- Disaster recovery and backups
- Patching and upgrading
- Windows or Linux environments
- Security patching and upgrading
- Threat detection and management
- Application security
- IPSEC connection and FTP setup
- SSL certificates
- Fully Managed Services

+

APPLICATION O&M

- Payment processing
- Purchasing systems
- Shopping cart and inventory Mgt
- Server and application monitoring
- Status and statistics alerts
- Performance dashboards
- Bug and error fixes
- Conversions and setup
- Upgrades and enhancements
- System integration
- Database migration and management
- Drupal-site development
- Web-portal development
- Business intelligence
- Data analytics and modeling
- Data warehousing
- Fully managed application solutions

=

PROVEN VIRGINIA PERFORMANCE

- Listed governor's website in 2011 Job Creator Appreciation Month
- Invited to governor's 2012 "The Year of the Entrepreneur" in Virginia signing
- Successful develops, operates, maintains and hosts web applications for Virginia state agencies

About CyberData

- Virginia Headquartered Company founded in 2000
- 12+ years serving federal and state government customers with IT Services
- Minority woman-owned 8(a) corporation and SWAM certified woman-owned company
- Over \$90 million in contracts, majority were won full and open



VA SWAM Women-Owned



CMMI Level 2 Certified



ISO 20000 Certified



ISO 9001:2008 Certified



Project Management Institute PMP Certified Managers



ITIL Certified Managers





SiteVision, Inc.

- Roanoke, Va. based firm. Est. 1996
- House and operate our own datacenter
 - Fully redundant bandwidth, power, AC, security, and monitoring
- Specialize in custom solutions
 - Able to partner with multiple providers to deliver comprehensive solutions
- GIS/mapping and emergency mgt. hosting specialists
- Years of experience in state agency and locality hosting
- Abundant options
 - Shared, co-lo, VPS/cloud, managed and un-managed dedicated, and SaaS
 - Multiple SPLA licensing and reseller program partners
 - Multiple virtualization/cloud options
 - Packaged options or completely custom configurations
- Elegant, effective, and efficient hosting solutions
- www.sitevision.com