



## DANTES' Microsoft Certification Pilot Program

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## Program Requirements

The Department of Defense (DoD) entity, Defense Activities for Non-Traditional education Support (DANTES), had a pioneering concept. In September, 2004 DANTES wanted to initiate a pilot program to allow authorized service-members to become certified in various Microsoft certifications. DANTES' Microsoft Pilot Certification Program (MS Cert) was a first for the DoD. As a result there was no proven model to follow.

The statement of work (SOW) created by DANTES' Certification program office was very clear with well defined business rules. The MS Cert program must:

- Create a certification process available to qualified service members in all branches of the armed forces world-wide; to include the Guard and Reserve
- Accommodate a myriad of time zones
- Offer multiple program registration vehicles to accommodate varying levels of access to communication and / technology
- Establish a uniform application and approval process
- Issue Microsoft exam vouchers within 24-hours of application approval
- Track program applicants from application to certification
- Provide a unique identification number for each applicant that is not associated with their social security number
- Prepare monthly reports for authorized program sponsoring personnel

- Maintain a paper record of the approval process
- Program must be cost-effective
- The program needs to be operational within two-weeks of the contract date

## **Technical Approach**

JASZ Technology is not in the certification business; however we did see an opportunity to create an innovative solution to DANTE'S' pilot certification program needs. We proposed using Internet technology to administer DANTE'S' certification program as a cost effective and highly accessible solution.

Our core business is Web design and development. We take business problems and create web-enabled solutions. We fill business needs and solve problems with:

- Graphic Design
- Website Design
- Web Development
- Web Architecture & Security
- Web Hosting
- Copywriting
- Custom Web Applications
- Customer Service & Technical Support
- Search Engine Optimization (SEO)
- Search Engine Marketing (SEM)

### ***Web Site Design***

Our Web Designers created customized branding for the MS Cert web site. Designing a site all branches of the armed forces would identify with. The custom website established branding for the project, provided intuitive navigation and a layout that would allow for a good user experience across web-browsers. Our Designers also avoided using Flash movies, audio and heavy graphics. This allowed for a positive user experience regardless of connection speed. Connection

speed was a concern for the DANTES. Service-members would be able to access the certification Web site from any location with Internet access. As a result, there was no uniform computing environment we could design to suit.

## Copywriting

Content is King on the Web if you are looking for high search engine rankings. However, content is King on the Internet for fiscal reasons as well.

Providing self-service on your Web site can be a huge cost savings. For the DoD the difference between having a service-member help themselves using Frequently Asked Questions (FAQs) or contacting a Customer Service Representative (CSR) or Technical Support Analyst meant the difference between spending dollars or cents.

In the DoD's case well written FAQs served several purposes.

- More service-members would choose self-service because of ease of use
- Help is accessible 24x7x365
- It accommodated remote locations and varying time-zones
- DoD leadership could also find quick answers to common program questions

JASZ Technology copywriters approached this project much like any other. They analyzed the industry (Exam certification programs), studied the project requirements and wrote custom copy/content for the certification program.

Our Certified Help Desk Manager then took the copy for the FAQs and added them to our internal Help Desk knowledgebase. Our Technical Support and CSR staff used the knowledgebase to quickly assist service-members. This has been an all around cost savings to the DoD. By assisting service-members quickly we could serve more applicants in a work-day, return them back to duty quickly and reduce support costs for the DoD.

## **Web Development**

JASZ Technology's Web Developers created a custom Web Application specifically for DANTES' certification program. DANTES planned to certify just over 2,000 service-members, with the expectation that approximately double that amount would apply. DANTES' web site and Web application was written using PHP programming language, with a MySQL database as a cost saving measure. Essentially, our Web Developers programmed a Web Site containing DANTES' business rules and workflow. Creating an online automated system.

Our Developers created an administration page for authorized DoD and JASZ Technology personnel to administer the program.

## ***Application Process***

A service-member begins the application process by completing an online application; this creates an automated unique identification number that is used to track the applicant through the certification process. Once the service member receives the appropriate authorization and approval the Web application issues an electronic voucher to the service-member. The e-voucher is then used to register for a Microsoft certification exam.

Authorized Service-members can log into the secure web site to update their information, change their exam, register to take an exam and other program tasks.

The application and database runs on an Apache server housed in our Raleigh, North Carolina Data Center.

## ***Data Center***

*Raleigh North Carolina Data Center:*

Fire Suppression is controlled by a multi-zoned, dry pipe, fire suppression system. Sensory mechanisms (Sniffers) sample air and provide alarms prior to pressurization. Dual alarm (heat and/or smoke) activation is necessary for water pressurization of the system. Water only enters the fire suppression system in the event of two cross-zone alarms, and will only disperse in the event of a broken or melted sprinkler-head. Any water discharge will be

sprinkler-head specific, which will limit the potential for damage caused by over-spray.

Our Data Center maintains three redundant Liebert HVAC systems to ensure that we maintain a consistent and controlled temperature within the facility. The Data Center operates at an average temperature between 65 and 75 degrees Fahrenheit and an average relative humidity between 30 and 45 percent.

The Data Center's backup power needs are covered by Carolina Power and Lighting (CP&L), under the Premier Power service. Under this service, CP&L has installed at the Raleigh Data Center a 900kW generator system and a 1600A automatic transfer switch. The generator is a Caterpillar Model 3508 and the transfer switch is a soft load closed transition device from Cutler-Hammer. As part of the Premier Power service, these components are tested weekly and site-inspected and maintained monthly. Remote monitoring ensures any faults are detected and corrected.

Our Data Center maintains dual Powerware 9315s that are configured in parallel for both redundancy and capacity using patented Powerware Hot Sync technology. The Powerware 9315 is the industry's most reliable and flexible three-phase UPS and provides our customers with a completely redundant and conditioned power configuration. The Powerware 9315 uses intelligent communications and parallel configurations to provide maximum uptime and 99.999% availability.

## ***Security***

Data Center security is state-of-the-art. With three levels of security, entry into the Data Center is not only restricted by proximity cards and access codes, but also controlled by biometric hand scanners. Facility security is managed centrally through a global facility management system. Video surveillance and stringent Data Center escort requirements protect server access. All service center personnel must pass a background check, be trained in security procedures, and complete a probationary period with the company before being cleared for Data Center work.

## ***Space***

- 6,000 sq ft raised floor space
- 11,000sq ft total space
- 12" raised floor environment with 300 pounds per square foot load capacity.

## ***Power***

- Redundant 20 amp circuits for each server rack/cabinet with independent power supply.
- N + N electrical design and distribution including redundant UPS systems with back up battery supply for interruption – free transfer from primary to back up power supply.
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## ***Environmental Systems and Controls***

- Dry pipe, dual interlocked, pre-action fire protection system.
- 82 tons of cooling capacity for Data Center Operations.
- Monitoring of all critical electrical and mechanical systems including generators, ATS, UPS, PDU, HVAC, security, and fire protection.
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## ***Physical Security***

- 24x7x365 on-site staffing with trained Level 3 Technicians
- Multi-layered security architecture.
- Interior and exterior high density surveillance cameras with back up tape storage.
- Secured server cabinet and cage access.
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## ***Network Connectivity and Bandwidth***

- Dual OC3 private interconnected network exchanges in Raleigh, NC and Charlotte, NC. This design ensures geographic diversity and fail over capability.
- Multiple OC3 Internet Connections.
- Fully redundant N + N network architecture.

- 24x7x365 monitoring of all WAN and LAN network components.
- 

### ***Data Backup and Storage***

JASZ Technology provides backups of the Web site and database to an external data storage device.

### ***Reporting***

Authorized DoD and JASZ Technology personnel have access to the Admin pages of the Web site. The admin tool provides secure access to program reports and other administrative features. Authorized DoD staff can login and retrieve program reports on an ad hock basis. In addition, an automated pre-defined monthly report is sent to key DoD personnel.

### ***Program Support***

Looking ahead, JASZ Technology anticipated there would be service-members without access to technology. Therefore we had to create multiple types of access to the certification program. Our solution was to allow service-members the option to access the certification program by:

- Email
- Telephone
- Fax
- U.S. Postal Mail
- Online

JASZ Technology provided CSRs to assist personnel without Internet access to register and receive an exam voucher. Service-members accessed the certification Web site from home, kiosks, cafes, government networks and other locations. As a result there were sometimes technical barriers/issue we had to help them overcome. Our Technical Support team provided support to service-members in both CONUS and OCONUS locations, in accordance with our Service Level Agreement.

## Program Analysis

Two-years into the program we can report excellent results. As with any pilot project you can imagine scores of issues to arise. However, excellent planning on the part of DANTES and superior project management, implementation and vigilant maintenance by JASZ Technology and its program partners, lead to a successful certification program. Setting a high-benchmark for future initiatives.

DANTES' Microsoft Certification Pilot Program has experienced:

- On-time, on-budget program specifications delivery. Going from contract to production in two-weeks
- 100% Server, Web site, application and database up-time (With the exception of scheduled maintenance)
- SLA met 100% of the time
- Service-members world-wide have access to certification vouchers and testing facilities to include in Afghanistan and Iraq
- Zero security issues
- Superior customer satisfaction

Visit our portfolio at <http://www.onwiredweb.com/our-clients.php>

***Contact us today to find out how we can help you achieve your Website goals. [Contact Us](#) via online request form or phone us at 919.647.9441. We are toll free at 800.354.3079.***