



REGISTAR Technology and Operating Environment

Development Environment

Registrar Systems has adopted DotNetNuke (DNN) Application Framework for its Registrar Online Registration Web portal technology. DNN is an open-source content management system ideal for creating and deploying projects such as commercial Web sites, corporate intranets and extranets, and online publishing portals. It is also a development environment with the vision to evolve its software through community participation and the sharing of knowledge. It is provided free of charge as open-source software, licensed under a standard BSD-style license agreement. In general, this agreement allows individuals to do whatever they wish with the application framework, both commercially and non-commercially, with the simple requirement of giving credit back to the DotNetNuke project community. It is built on a Microsoft .NET Technology and it is easily installed and hosted. DotNetNuke is versatile, user friendly, and is designed to make it easy for users to manage all aspects of their Web site. Site wizards, help icons, and a well-researched user interface allow universal ease-of-operation. It is very powerful and capable of supporting multiple portals or sites off of one install.

DotNetNuke divides the administrative burden between the host (SuperUser) level and the individual portal (Site) level. This allows administrators to manage any number of sites each with their own look and identity from a single management account. DotNetNuke comes preloaded with a set of feature rich built-in tools that provide powerful functionality. Site hosting, design, content, security, and membership options are easily managed and customized through these tools.

The DotNetNuke Application Framework is supported by its Core Team of developers and a dedicated international community. Although we maintain current source code Registrar Systems does not modify core elements of this product. Instead, we create custom modules and we code our modules in accordance with DNN development standards. This allows us to focus on our core Online Student Registration product and prevents DNN updates from interfering with the functionality of our custom code. DNN is easily installed and just as easily upgraded, backed up, and restored. It includes a multi-language localization feature which allows administrators to easily translate their Web site, portals or sub-portals into any language. The product is very extensible and capable of the most complex content management using only its built-in features, yet simple and powerful enough to allow administrators to work effectively with add-ons, third party assemblies, custom code, and development tools. DotNetNuke provides

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DotNetNuke is a trademarked name; its brand is widely recognized and respected in the open source community. With over 600,000 registered users and a talented team of dedicated developers, DotNetNuke continues to evolve its software through participation, real world trial, and end-user feedback.

Microsoft SQL Server Database

Microsoft SQL Server is a comprehensive database server and information platform offering a complete set of enterprise-ready technologies and tools that help people derive the most value from information at the lowest total-cost-of-ownership. Enjoy high levels of performance, availability, and security; employ more productive management and development tools; and deliver pervasive insight with self-service business intelligence (BI).

A complete and integrated platform, Microsoft SQL Server brings it all together to get more value out of existing IT skills and assets, increase the productivity and agility of IT departments, and quickly build flexible, innovative applications. Listed below are a few of the reasons why we chose Microsoft SQL Server

- ✓ SQL Server delivers (99.9999%) uptime availability.
- ✓ SQL Server delivers a 460% savings in annual cost of administration per database over Oracle.
- ✓ SQL Server reduces downtime by over 20%
- ✓ SQL Server is the most secure of any of the major database platforms.

When using the recommended application server architecture we require that Microsoft SQL Server reside on dedicated hardware. We are committed and have tested the successful use of VMware or Hyper-V as a platform for the Registar product. We have districts and consortiums using virtual servers today.

We strongly recommend that application and database servers NOT be used to provide any other network services. Network services such as Domain, WINS, IIS, Mail, and DHCP can negatively impact application performance and can jeopardize both data integrity and security. The practice of using dedicated servers to provide critical enterprise services is strongly endorsed

SQL Maintenance plans generate a quick snap shot of data in an offline file that can be backed up by any standard backup utility. We do not recommend using the built in Microsoft backup utility because it is too closely tied to the OS version and is frequently difficult or impossible to restore when OS Version discrepancies exist.

We recommend full nightly backups of SQL Server data and at least weekly backups of the SQL Server and system state. Application and Web servers can be backed up as needed and according to standard district policy. The frequency of backups used for application and Web servers should be

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determined by the activities the district allows on these servers. For instance, if personal profiles are used on the application server and user frequently store personal information within their profiles a frequent back may be necessary. If user profiles are strictly enforce and no personal data is stored on these servers then Application and Web servers can be simply reinstalled and joined to the farm. This is much faster than a full server restored.

Student Information System Integration

The Registrar System allows for the seamless transfer of student registration data to your district student information system (SIS) or data warehouse for real-time tracking and updates. Features of our SIS integration include:

- Efficiently submit completed data to your student information system from the Registrar Online Student registration system.
- Many options for data exchanges including Link Server direct database connections and API Web service technology for real time integration for anytime anywhere access.
- Scheduled updates or on demand updates based on a single click from your PowerGrid makes the process simple and easy.
- Automated email alerts to notify parents and staff.

Registrar can efficiently integrates with your SIS data using a Link Server. A linked server allows for access too distributed, heterogeneous queries against OLE DB data sources. After a linked server is created, distributed queries can be run against this server, and queries can join tables from more than one data source. The linked server is defined as an instance of SQL Server, so remote stored procedures can be executed.

The information contained in this document attempts to describe the Registrar product platform. We would be happy to sit down with your districts technical staff and design a solution that best fits your districts unique requirements. If you have any questions, please contact your sales representative.



Technology Infrastructure and Network Diagram

