

## CYBER RECRUITER: TECHNOLOGY OVERVIEW

Cyber Recruiter is a 100% web-based recruiting solution that takes advantage of Microsoft SQL Server, HTML, .NET, and Active Server Page technology to provide a stable, efficient recruiting experience. Cyber Recruiter can be configured on two different servers (one web server and one SQL Server), or can be installed exclusively on one server. Regardless of the final configuration, the requirements are as follows.

### WEB SERVER

-Windows 2003/2008 Server 32 bit/2008 R2 64 bit with IIS 6.0 or higher installed and not installed as a domain controller. Virtual environments are also supported. Microsoft Windows Small Business Server (SBS) is not supported. Windows NT 4.0 is not supported. -Microsoft .NET Framework 3.5 SPI

### SQL SERVER

-Windows 2003/2008 32 bit/2008 R2 64 bit Server. Virtual environments are also supported. Microsoft Small Business (SBS) is not supported. Windows NT 4.0 is not supported.

-SQL Server 2005 (Professional/Enterprise only), or SQL Server 2008 or SQL Server 2012. SQL Express (previously MDSE) is not supported. Microsoft Full-Text Indexing must be installed.

### CYBER RECRUITER USER MACHINES

-Internet Explorer 7.0 or higher installed or FireFox 3.0 or Safari 4.0

### HARDWARE RECOMMENDATIONS

Cyber Recruiter is a very low-transaction application and therefore requires minimal hardware configurations by today's standards. As with any web-based or SQL server-based application, however, the necessary hardware depends on which other applications share the same servers.

If Cyber Recruiter were the only web application on the web server, the web server would require at least a 1.5GHz single processor and 2GB of RAM. The amount of hard drive space needed is less than 30MB.

If Cyber Recruiter were the only application using your SQL Server, it would require at least a 2GHz single processor and 2GB of RAM. Upon installation, Cyber Recruiter creates a database that uses 150MB of hard drive space. The database will grow automatically as needed but can hold at least 20,000 applicants before needing to grow. If, however, you plan to keep the original resume formats of your applicants (Word docs, .pdf's, etc.), these take up significantly more hard drive space. In this scenario, your SQL database will require approximately 400MB of hard drive space per 10,000 applicants stored.

## EXTENDING CYBER RECRUITER TO PUBLIC WEBSITE

Many clients elect to post open requisitions to their corporate websites as well as accept applicants and resumes via their website. Real-time job-posting and resume collection can be implemented as long as your corporate web server runs Microsoft IIS 6.0 or higher and has access to the Cyber Recruiter SQL Server.

An online application for your public site often requires customization in order to make the application integrate seamlessly with your current website layout, artwork, etc. The Cyber Recruiter core product currently runs on Microsoft .NET 3.5 and a customized public Careers site will run on Microsoft .NET 2.0 technology.

As there are so many unique configurations of hardware/software firewalls, routers, DMZ's, and web-hosting services possible from organization to organization, it is up to the client to determine how their public website will have read and write access to their Cyber Recruiter SQL Server for posting open positions and accepting resumes in real-time. Port 1433 is commonly used to communicate between Cyber Recruiter and SQL and Careers and SQL, but each individual organization may be different

## SUMMARY OF TECHNOLOGY INVOLVED

### PRIMARY LANGUAGE

All web pages in Cyber Recruiter are written using standard HTML 4.0 coding, server-side .NET Active Server Page (ASPX) technology, and client-side Javascript. ASPX's are the Microsoft-native method for server side scripting and database access (using Active Data Objects (ADO) .NET). Javascript is the industry standard for client-side browser scripting and is used for form validation and simple page redirections.

### SMTP

Much of the functionality of Cyber Recruiter depends on automatic emails that are generated during the recruiting process. These emails are sent via SMTP technology. In order for this to function properly, a working SMTP server must be available that allows relaying from the web server to internal and external email recipients. This SMTP Server Name (or IP address) is entered under Admin/System Setup in Cyber Recruiter. Cyber Recruiter's SMTP functionality supports SMTP Authentication and/or changing of the standard SMTP port.

### SQL SERVER

Cyber Recruiter resume text searching functionality requires that full-text indexing be installed on the SQL Server. If this did NOT get installed with SQL Server by default it will need to be added separately from the SQL CD. You can check to see if full-text indexing has been installed by opening the Services applet in Control Panel. Look for a service called 'Microsoft Search.' If it exists, then full-text indexing is installed.

### PARAMETERIZED QUERIES

This feature applies to the Careers and Self Service sites connected to Cyber Recruiter. These sites use .NET-native parameterized queries to send SQL statements to the SQL Server rather than dynamically-generated string-based SQL Statements, which are more susceptible to SQL Injection attacks. Parameterized queries provide the protection of SQL parameterized Stored Procedures but without any SQL code actually having to be stored on the SQL Server.

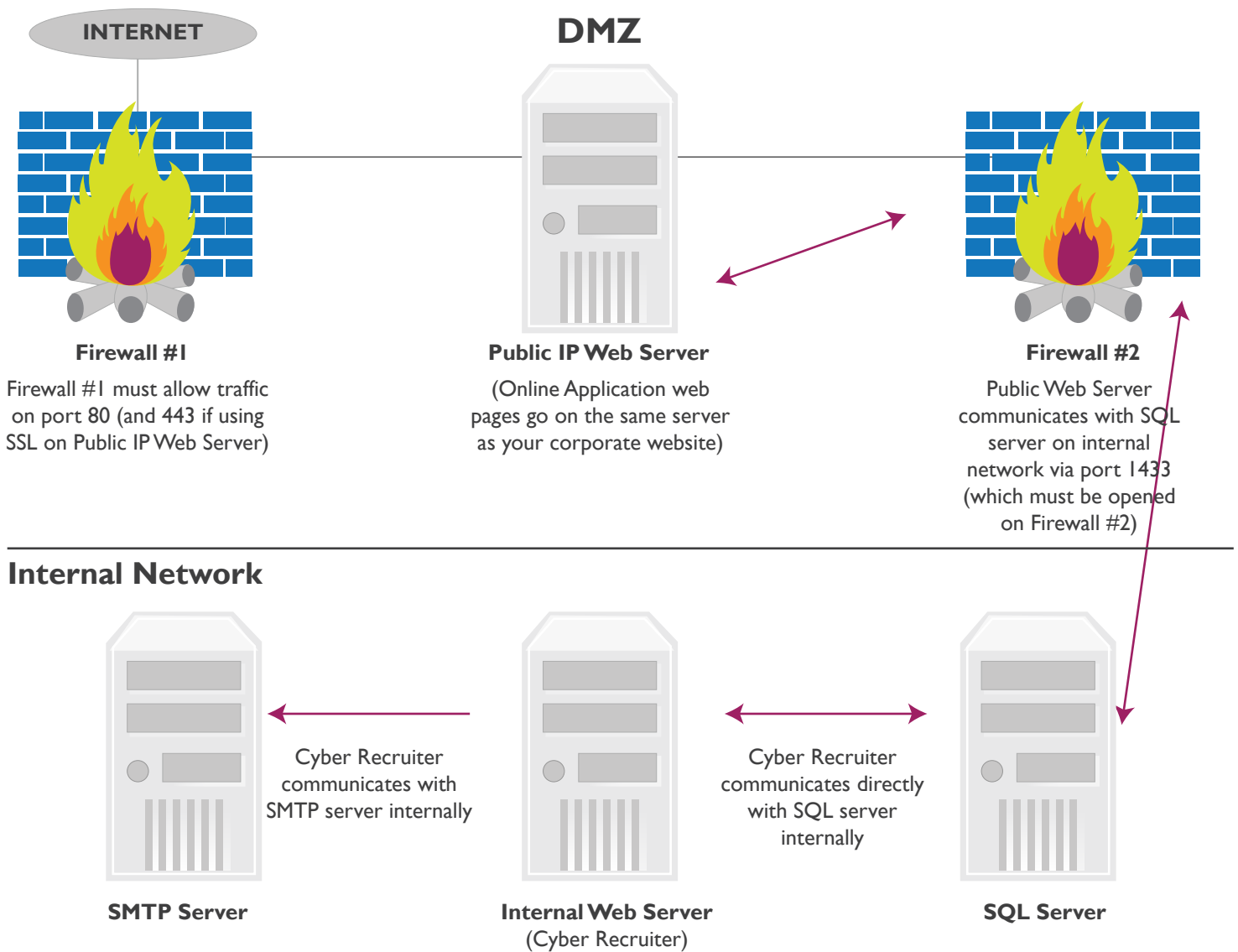
## ■ ■ ■ ENCRYPTED QUERYSTRINGS

Querystring data passed from one page to another is entirely 128-bit encrypted. Any attempt to change the value of the encrypted querystring results in an error to the user and no processing is done, preventing querystring hacking.

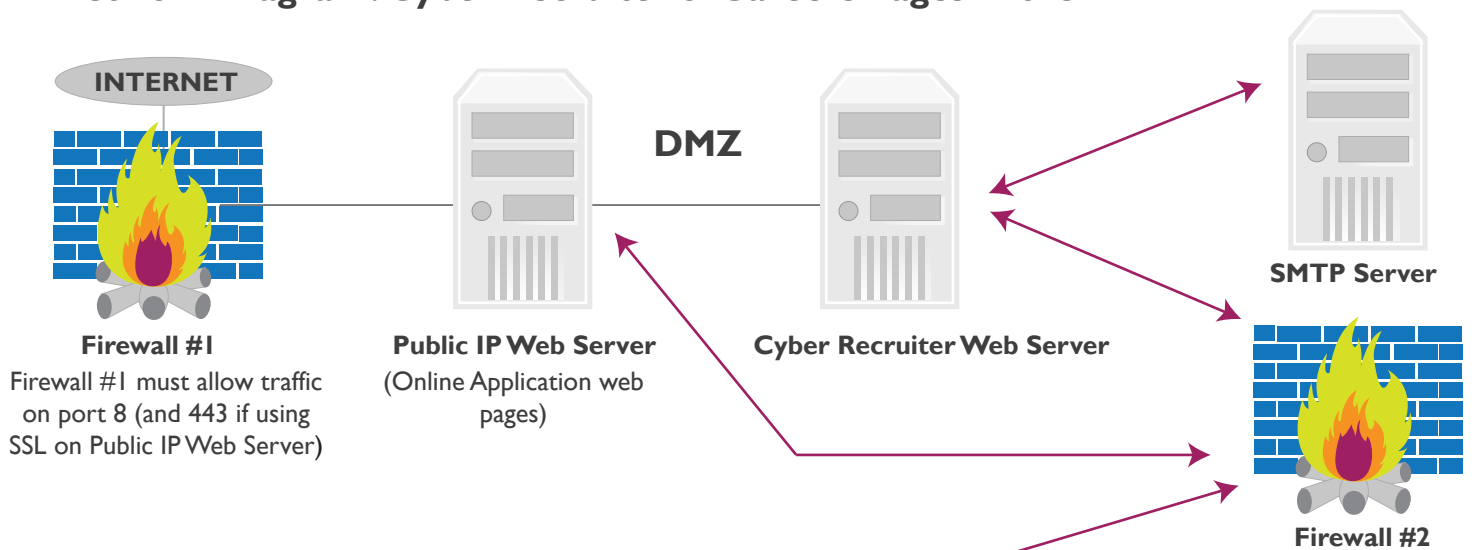
## ■ ■ ■ SAMPLE INSTALLATION INSTRUCTIONS

The next three pages provide a graphical representation of the installation and configuration for Cyber Recruiter and its supporting web pages. If the desired configuration is not shown, please contact Visibility Software Technical Support or your Implementation Consultant.

### Network Diagram: Typical Cyber Recruiter Setup



### Network Diagram: Cyber Recruiter & Careers Pages in the DMZ

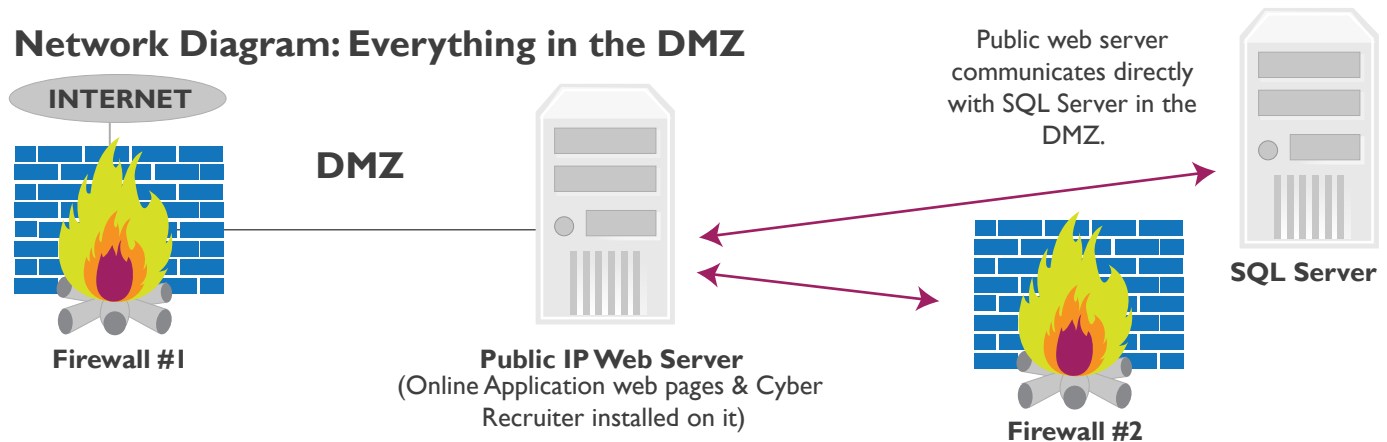


### Internal Network



Public Web Server & Cyber Recruiter web server both communicate with the SQL on internal network via port 1433 (which must be opened on Firewall #2). This allows users from other physical sites to still use the Cyber Recruiter administrative application directly over the internet (since the Cyber Recruiter web server is public).

### Network Diagram: Everything in the DMZ



### Internal Network

Cyber Recruiter relies on SMTP technology to send emails. If your Cyber Recruiter server is in the DMZ, you'll need to allow traffic through firewall #2 on port 25 so that your Public IP Web Server can communicate with SMTP Server.



### Network Diagram: Website Hosted by Third Party

