

Qualified Company	Qualified Product	Endpoints Qualified	TestNav Version	Qualified Date	Document Version
FireFly Computers	Session-based RDP 7.1 w/RemoteFX	ViewSonic SC-T35, SC-T36, SC-T46	TestNav 8	4/29/2015	Version 1

## District Technical Information for Qualified Solution

This document provides guidance for districts and schools that choose to use the qualified product(s) with the TestNav version indicated.

**FireFly Computers** completed the TestNav qualification process for the specific products described in the **Qualified Products** table. The technology and setup requirements must be followed and all student testing devices or workstations used to access TestNav must comply with the requirements in order for the solution to remain in qualified status.

### QUALIFICATION STANDARDS

TESTNAV QUALIFIED mark and logo are certification marks owned by NCS Pearson, Inc. (the “TESTNAV QUALIFIED Marks”). The TESTNAV QUALIFIED Marks may only be used by entities who have executed Pearson’s TESTNAV QUALIFIED Certification Mark Agreement, and in the manner prescribed in the Pearson Certification Mark Usage Guidelines (the “Usage Guidelines”). Online documents: <http://www.testnavqualified.com>; Vendor Qualification.

The Qualification Standards used for qualification available in **Appendix A**. Version history for this document available in **Appendix B**.

## Qualified Products & Solutions Table – TestNav 8

Pearson and **FireFly Computers** jointly tested the following solutions for use with TestNav 8.

### PERFORMANCE TESTING OVERVIEW

Performance testing was completed by running all performance tests on a single FireFly Remote Desktop Session Host (RDSH) server, built using FireFly best practices, and 30 ViewSonic SC-T35 thin clients running RDP 7.1 with RemoteFX connections to the host server. Extrapolations beyond 30 stations are based on FireFly host scaling guidelines and benchmarks. The maximum number of users was determined by simultaneous testing and use of the most intensive item types and tools within the benchmark test form.

FireFly session-based RDP 7.1 with RemoteFX	
TestNav Version	TestNav 8
Qualified Software Version	7.1 or higher
Minimum FireFly Server	FireFly 1400
Minimum Memory	8 GB for up to 15 students 16 GB for 16-45 students
Operating System	Server 2008 R2 SP1
Minimum Network Speed	1Gb Host to distribution switches, 100Mb to client
Maximum Number of Clients	Up to 15, 16-45 (see Minimum Memory Requirements)
Minimum Encryption	128bit AES encryption
End-point/student clients supported	ViewSonic SC-T35, SC-T36, SC-T46
Browsers Supported	IE 10, 11; Firefox. <b>Chrome is not supported.</b>

## Requirements

### TESTNAV 8 REQUIREMENTS

All TestNav 8 Hardware and Software Requirements need to be followed when using qualified products: [www.PearsonOnlineTesting.com/TN8requirements](http://www.PearsonOnlineTesting.com/TN8requirements).

### SOLUTION REQUIREMENTS

Please access the *FireFly Quick Start Guide* for TestNav for setup instructions. This guide includes security requirements and device configurations for proper connectivity. You will need to follow all requirements as listed in the *FireFly Quick Start Guide* to ensure the student environment is secure.

#### FireFly Quick Start Guide

The *FireFly Quick Start Guide* can be accessed with the following link:

[FireFly-Quick-Start-Guide.pdf](#)

#### FireFly Host Server Recommendations and Benchmarks

The *FireFly Host Server Recommendations and Benchmarks* for scaling guidance can be accessed with the following link:

[FireFly\\_Host\\_Server\\_Recommendations\\_and\\_Benchmarks.pdf](#)

#### Browser Requirements

Please note the **Chrome browser should not be used** for testing with this qualified solution (FireFly Session-based RDP 7.1 w/RemoteFX).

### SYSTEM CHECK

The standard Pearson process running **SystemCheck** should be followed to confirm final concurrent user counts for implementation purposes.

### PROCTOR CACHING

The FireFly Session-based RDP 7.1 w/RemoteFX RDSH environment interacts normally with Pearson proctor caching. All recommended Pearson procedures for configuring and testing Proctor Caching should be followed. **Do not install Proctor Cache on the RDSH server.**

### SRF FILES

Primary Student Response Files (SRF) are stored locally in the student's home folder as the default. The **user profile data is not deleted at session logoff by default** at solution implementation. Therefore, the Primary SRF file can be stored locally in the student's user folder. If any changes are made to the default during implementation regarding retention of user session data, appropriate changes to the SRF file Primary location must be made. Secondary SRF locations should follow Pearson best practices as listed in the Pearson User Guides.

## Additional Recommendations

Access the Pearson Support site for requirements regarding Java, popups, and other setup requirements: [www.PearsonOnlineTesting.com/TN8requirements](http://www.PearsonOnlineTesting.com/TN8requirements)

Site Navigation = Setup and Support  
Set Up Your Test Environment  
Desktops and Laptops

## Contact Numbers

### SALES

For Sales Inquiries: **866-950-8868 / option #1**

on the web at: <http://www.fireflycomputers.com>

### SUPPORT

For Technical Assistance (Current Clients): **866-950-8868 / option #2**

on the web at: <http://www.fireflycomputers.com/support>

## Appendix A - Qualification Standards

The Qualification Standards used to certify this solution are outlined below:

A virtual client machine should provide the same experience as a client machine in a non-virtual environment. A baseline Electronic Practice Test (ePAT) provided by Pearson during the qualification process was used for comparison. The ePAT provided was specific for the TestNav version being qualified.

### Virtualization Setup Requirements

1. The testing environment should be set up using proctor caching
2. Once setup, the testing environment should use the SystemCheck tool successfully
3. Once setup, the testing environment should use the TestNav practice test to verify proper configuration

### Virtualization Qualification Standards

Qualified Products must meet all of the following criteria:

#### ***Critical Security Standards for TestNav®***

1. From selection of the test to "submit test" the desktop is secure and the system does not allow access to any application, content, or other service beyond the TestNav test assessment delivery system
2. From selection of the test to "submit test" the system does not allow any screen captures, printing, saving or other electronic replication or duplication of the display screen, source code or content of the test
3. All data is encrypted between client and server for the entirety of the usage period. The data encryption must be AES 128 or higher.

#### ***Critical Performance Standards for TestNav®***

1. While logging in concurrently, no error messages are received
2. The first test item/question of the tests loads fully at the same speed as the baseline amount of less than 45 seconds
3. While interacting with all test items/questions there are no noticeable cursor lags, input lags or delays in tool engagement as compared to the baseline ePAT
4. While interacting with video, audio, and Technology Enhanced Items (TEI) there are no significant lags or delays experienced as compared to baseline ePAT
5. There is no noticeable delay when navigating from test item/question to test item/question
6. All tools work correctly as demonstrated in the baseline ePAT
7. At submit, no error message is received
8. When hitting submit the system acceptance response is at the same speed as the baseline ePAT submit speed, with a maximum of 10 seconds

## Appendix B – Version HISTORY

Date	Section	Change Summary
5/5/2015	Initial Document	Release of initial document, version 1