System Requirements and Scalability for netTerrain

netTerrain is a modern n-tiered web-based enterprise-grade software for network, fiber and data center documentation that can be deployed in a variety of configurations. The data tier (database server) and the application tier (application server) can be deployed on the same or on separate (physical or virtual) machines. The netTerrain database can run on any operating system and virtual environment that supports SQL Server 2012 / 2014 / 2016 / 2019 and the application server can run on any operating system and virtual environment that supports IIS 8.0 or better and .NET 4.5. As you may have noticed, we are trying to impress you with a lot of big fancy words.

These specifications may not yield a fast-performing system if there is a high volume of activity associated with other applications or database systems running in parallel, abnormal spikes in user activity or other external factors that can slow down disk, CPU or memory usage. Translation: we can keep adding more fancy words to give you this warm fuzzy feeling that you'll have the exact server you need, but we know better. Server sizing and estimation is more an art than a science. Take the table below with a huge grain of salt.

Server - Hardware

	Minimum	Standard	Optimal
Processor	Intel Core-I7	Intel Xeon processor (E5 or E7 or better processor familiy) or similar Or multiple virtual sockets and CPUs (4x1) core allocation for VM instances	Intel Xeon processor (E5 or E7 or better processor familiy) or similar Or multiple virtual sockets and CPUs (4x2) core allocation for VM instances
RAM	8 GB	32 GB	64 GB
Hard Disk Space	10 GB Free Space	High speed w/ 40 GB Free Space	High speed SSD w/ 100 GB Free Space

Server - Software

The software requirements are the following:

- Windows 2012, 2016, 2019 Server (other Windows desktop operating systems are also supported)
- MS SQL Server 2012, 2014, 2016 or 2019 Standard or Enterprise Edition with SQL Server Management Studio (SSMS).
- MS IIS 8.0 or better for the application server
- .NET Framework 4.5 or greater for the application server
- Certain configuration requirements for IIS and SQL Server apply

Client - Hardware and Software

Clients only need a modern browser that supports HTML5. These include Firefox, Edge, Chrome and Safari. We don't have our favorites. OK, I lied, we do, so use that one.

Notes

1. Minimum requirements are based on a medium sized deployment with up to 10 concurrent Users and 500 devices.
2. Standard requirements are based on a large sized deployment with 25 concurrent Users and 5000 devices
3. Optimal requirements are based on a very large deployment supporting up to 100 concurrent Users and 50,000 devices.

For larger deployments please consult with a Graphical Networks support engineer. netTerrain can be deployed on multiple servers to handle extremely large deployments. Concurrent users are counted as users entering or updating the system through the browser at the same time.

The total number of named users supported is usually the number of concurrent viewers multiplied by a factor that depends on the probability of two users accessing the server concurrently during peak usage. A conservative estimate is a factor of 10, which would yield the following named users for the three configurations listed above:

1. Number of named users for minimum configuration: up to 100
2. Number of named users for standard configuration: up to 250
3. Number of named users for optimal configuration: up to 1000

It is important to note that these limitations are based on conservative estimates. For additional named users and devices in any of these configurations, additional servers in replication mode can be set up.