



Govern System Requirements

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Govern
System Requirements

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System Requirements

Overview

This section lists the minimum hardware and software requirements for *Govern's eGovernment* solutions and *Microsoft .NET* applications.

Server and Network Requirements

Note: It is recommended, to set up three physical servers. The first would be for the *Database*, the second for the *Application*, and the third, when required, for the *Web*. If you decide, to combine two of the three as virtualized servers, you will need to revise the minimum recommended configuration.

Note: Deployments on the application server are maintained with the Deploy EZ application, ensure that this server has Web access and an open FTP port.

SERVER HARDWARE ⁸	
Hardware Type	Minimum Specifications
DATABASE SERVER	
Platform	Windows®
Database Package	Microsoft® SQL Server ¹ 2019
CPU ²	2.5 GHz / 1 MB cache (3.5 – 4.5 GHz and above - Recommended)
RAM	128 GB DDR2/3/4 ² or greater – (Recommended) Note that specified memory requirements are for the core Govern Applications alone, i.e., without 3rd party application integrations. Third party integrations can significantly impact system performance due to their individual requirements. A review of requirements of integrated applications should be performed prior to their installation. Also refer to A Note for users of Virtual Machines (VM's) below.

Govern System Requirements

SERVER HARDWARE⁸	
Hardware Type	Minimum Specifications
Disk Space	A minimum configuration of RAID V with 1 TB of hard disk space is recommended. An ideal configuration would be RAID 10 or RAID 50 for fault tolerance and improved <i>Read</i> and <i>Write</i> performance. <i>Note that Disk Space is dependent upon individual Database and Disk Mirroring requirements.</i>
Operating System	Microsoft [®] Windows [®] Server 2019, or greater Microsoft .NET Framework 4.7.2, or greater ⁵
Network	1 Gbit NIC <i>or greater - Recommended</i>
Peripherals	External media or storage device
WEB / APPLICATION SERVER ⁷	
Platform	Microsoft [®] Windows [®] Server 2019 with IIS 10.0 or higher
CPU	3 GHz / 1 MB cache, 800 MHz FSB (3.0 GHz Quad-core 1.066 GHz FSB - <i>or greater recommended</i>)
RAM	32 GB DDR2 (64 GB - <i>Recommended</i>)
Disk Space	100 MB for each site being maintained. Additional space will be required for reports, and temporary space for submitting multimedia documents.
Operating System	Microsoft [®] Windows [®] Server 2019 or greater Microsoft .NET Framework 4.7.2 or higher ⁵
Network	1 Gbit Network Interface Card (NIC) ³ or greater - <i>Recommended</i>
WEB / APPLICATION SERVER HARDWARE ⁷	
Peripherals	External media or storage device
Other	Redundant power supply and fans

A Note for users of Virtual Machines (VM's)

Users of Virtual Machines (VM's) should note that when multiple servers are being hosted in a Virtual Machine on the same physical servers, the requirements for each individual server must be carefully managed as it can impact use of system resources. For example, users may decide to host the *Database Server*, *Application Server*, and an *eGovern Web server* in a VM that is running on the same physical server. In such a situation, as a result of the varying requirements of each server, planning is required to address how shared system resources are allocated to the individual server, and the VM.

Client and Network Requirements

CLIENT HARDWARE	
Hardware Type	Minimum Specifications
CLIENT WORKSTATIONS	
Platform	Microsoft® Windows®
CPU	Intel® Core™ i5 / i7 / i9 Processor
RAM	32 GB or greater.
Disk Space	500 GB of hard disk space
Network	1 Gbit Network Interface Card (NIC) ³ or greater
Operating System	Microsoft® Windows® 10 Professional (64-bit) ⁶ or higher Microsoft .NET Framework 4.7.2 or higher ⁵
Other	21" Display or greater; Video Card (1920 x 1080 HD minimum display resolution)
MOBILE HARDWARE (Laptops / Tablets)	
Platform	Microsoft® Windows® ⁶
CPU	Intel® Core™ i5 / i7 / i9 Processor
RAM	32 GB Internal RAM ² or greater

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CLIENT HARDWARE	
Hardware Type	Minimum Specifications
CLIENT WORKSTATIONS	
Operating System	Microsoft® Windows® Windows® 10 Professional (64-bit) ⁶ , or higher Microsoft .NET Framework 4.7.2 ⁵
Network	1 Gbit Network Interface Card (NIC) ³
Disk Space	500 GB of hard disk / Solid State Drive (SSD) space
Integrated Communications	Optional Integrated Mobile Broadband (4G-LTE / 5G) ⁴ Wi-Fi® 802.11 a/b/g/n/ac 100/1000 Ethernet
THIN CLIENT PC / SERVER	
Operating System	Microsoft® Windows® 2019 Terminal Server

- 1) Microsoft® SQL Server 2019 or higher is supported.
- 2) CPU and RAM requirement may vary depending upon the number of users, and the number of parcels managed by the application.
- 3) Govern's performance is dependent upon network bandwidth because files, reports, icons, images, and data are downloaded from servers.
- 4) Although 4G-LTE and 5G mobile connectivity will enhance the user experience, this connectivity is not a functional requirement of the Govern Mobile application.
- 5) Users of the following versions of Govern are required to upgrade to the Microsoft Framework V4.7.2 or higher; affected release versions are 6.1.1911 and higher (6.1. Release)
- 6) Only 64-bit Operating Systems are supported by Govern.
- 7) Govern R&D recommend that dedicated servers should be used to host Govern Applications. The use of dedicated servers minimizes the impact of external applications/databases on Governs' performance.
- 8) Users should elect to use fast to very fast Solid-State Drives (SSD). The increased performance of SSD's will have a positive impact on Governs' overall performance.

Supported Web Browsers

Note: Internet browsers are continuously developed and upgraded, as a result compatibility issues may arise. The following list is by no means an exhaustive one and cannot completely take into account the incompatibilities that can occur between browser versions and versions of operating systems.

Web Browsers

The *MS Govern eComponents* are generally compatible with current versions of popular Web browsers.

It can be assumed that Web browsers that do not appear on this list are not supported.

Compatible browsers are as follows:

- **Microsoft Edge**
- **Google Chrome**
- **Firefox**
- **Apple Safari**