

Exhibit 4 - Infrastructure Technical Minimum Specifications

Below is a list of the City's current technical minimum specifications. This information is to assist proposer in.

- Servers & Storage
 - Servers must be supportable as virtual machines running under VMWare vSphere 6.x
 - Storage must be able to be located on a Fiber Channel SAN
 - Exception: Dedicated server and/or storage hardware will only be acceptable in situations that GRU IT agrees with the justification for such
 - GRU does not support Windows or Linux Clustering
- Operating Systems
 - Windows 2012 R2 SE or EE 64-bit for servers
 - Windows 7 Professional 64 bit for desktop and laptops
 - Windows 10 needs discussion with IT until such time as IT has rolled-out Win10 to organization
 - Handhelds - Microsoft Windows CE 6.0 or Windows Embedded Handheld 6.5
 - Tablets - with Windows 7 Professional - 32 or 64 bit, or Windows 10 64 bit - discuss with IT first
 - Smartphones - Apple IOS, Droid or Windows
- Database Systems
 - Microsoft SQL Server 2012 R2 or later. Running databases in backward compatibility mode is discouraged.
 - Vendor supports the MS-SQL database platform running as a 64-bit guest VM under VMWare vSphere.
 - Database(s) can be hosted on a centralized SQL Server at GRU's discretion, i.e., product does not require its own dedicated instance of SQL Server.
 - GRU will host SQL Server instances according to business requirements for performance, security, HA and B&R.
 - Client endpoints do NOT require the use of the Named Pipes protocol.
 - Unusual SQL Server configuration requirements (FILESTREAM, .NET code in the database, etc.) should be noted so that the appropriate evaluation can be performed.
- VoIP
 - Compatible with Cisco UCM, Unity, UCCE
 - GRU
 - UCM 9.x
 - UCCE 9.x
 - Unity 9.x
 - GG
 - UCM 7.1.5.31900-3
 - UCCX 7.0(1)SR05_Build504
 - Unity 7.0 Build 7.0(2)
- Network
 - IP Version 4

- Wireless
 - Radio: IEEE 802.11a/b/g compatible
 - Security: WPA2 Enterprise, 802.1x and PEAP
- Security
- Middleware
 - Exchange 2007
- Client
 - Desktop and laptop installation of vendor product(s) is compatible with Vipre anti-virus
 - Java version -preferably the current version of Java (7.0) or at least 6.20
 - MS .Net version at least version 3.51
- Active Directory
 - Forest: COG, containing two domains: GRUADMIN, GG
 - Forest & all Domain's functional Level: Windows Server 2008 R2