

# CMPv3 Technical Overview

## Architecture Summary with Hardware and Software Requirements



***CMPv3 is a multi-tier web-based, open-architecture, object-oriented application/platform designed to maximize Information Management effectiveness, thus enhancing the value of our clients' services.***

### **Technology and Architecture**

The three-tier architecture of CMPv3 provides innumerable possibilities to control and optimize the capture, organization, processing and access of data. Programming includes code written in TSQL, C# (for .Net), AJAX, DHTML and JavaScript. Its open architecture and relational design ease integration to other systems, reporting and many modifications. As a web-based application, it may be hosted locally (LAN, WAN) or externally and accessed over the internet via VPN or other secure methods. No client-side PC software is required, so system maintenance is inexpensive and information is highly accessible for authorized users subject to the security protocols of the host.

**Object-Oriented.** The entire CMPv3 application was designed using Object Oriented Methodologies (reusable code "objects" easily adapted to multiple areas). This enhances maintainability through common code usage, reduces design complexity, and provides a highly consistent user experience throughout the system. Reusability of the design objects reduces the time, cost, and complexity of updates and customization, but also facilitates the evolution of the product to the latest standards by allowing modular updates to replace, rather than building upon, previous code throughout the system.

**User Interface (UI).** The UI tier is fully web-based with exceptional visual appeal, ease of search, navigation and functional control. The UI strongly supports the strong relational capabilities of the SQL back-end. The program is optimized for use with Microsoft Internet Explorer ("IE 7").

**Mid-Tier.** The mid-tier handles dynamic content processing and functional abilities. CMPv3 is designed to minimize transaction size between the Server and Client PC, which minimizes bandwidth impact. The architecture has been designed to off-load processing from the Server to the Client PC when practical to maximize Server capacity and improve user experience.

**Database.** CMPv3 has an extremely well-designed Microsoft SQL Server database tier. SQL Server is the most broadly accepted database standard in the industry with tremendously robust relational capacity, performance and scalability. It is highly adaptable, reliable and easily integrated to other systems and is highly serviceable. There are no defined system limitations in terms of data, record, or user capacity, which are generally subject to those of the supporting systems, hardware and software.

The database for CMPv3 was designed to minimize redundancy while maximizing throughput. Its inherent design discourages duplicated data entry and ensures valid data dependencies. The ability to integrate multiple systems cuts data input redundancy tremendously, not only assuring data validity but saving substantial time and resources (e.g.: one simple example; core client information can be entered once and tied to accounting, document, case and contact applications).

**Primary Records.** CMPv3 data primary data areas (Matter/Case, Contact, Document, Calendar) are all highly adaptable with content-driven Custom-Sections and Workflow automation. The ability to link records that are related is facilitated automatically by content, and supplemented by manual selection of additional related records. This cross-reference ability substantially enhances navigation, reporting and analysis across the data spectrum for optimal productivity and knowledge access.

# CMPv3 Technical Overview

## Architecture Summary with Hardware and Software Requirements



### Server Requirements for Enterprise Model

- A web server and a database server (may be one physical server).
- Web Server has Windows Server 2003 or 2007 and 20 MB free disk space, Web Server has a static IP Address installed; not yet ISS designated as web.
- Database Server has Windows Server 2003 or 2007 with Microsoft SQL Server 2005 installed; 1 GB free disk space on the default data and default log directories.
- Lucid IQ recommendations:
  - CMPv3 is most effective with a dedicated server. Baseline reference: Dell PowerEdge 2950 or equivalent (Dual 2.6 GHz Quad-Core Xeon, 2GB RAM, RAID 1 or RAID 5 Hard-drive of 50+GB usable space).
  - Physical limitations (processor, memory, disk, and bandwidth) may affect performance, depending on settings, configuration and loading of other applications.
  - Lucid IQ does provide support services for server management, typically requiring direct server access.

<u>SERVER</u>	<b>Recommended Specifications:</b>	<b>MINIMUM Specifications:</b>
<b>Processor</b>	Dual 2.8Ghz processor	Single 1.5Ghz processor
<b>Memory</b>	2+GB RAM	1GB RAM
<b>Hard Drive</b>	Raid 5 storage partition.	Raid 1 storage partition 30GB usable
<b>Software</b>	Windows Server 2003 SQL Server 2005; Internet Explorer v7.0	Windows Server 2003 SQL Server 2005; Internet Explorer v7.0
<b>Networking</b>	Network Interface Card (NIC) & connection	Network Interface Card (NIC) & connection
<b>Additional Hardware</b>	Database and Web Server Backup System	Database Server Backup System

### Personal Computer Requirements (for both Enterprise and Hosted systems)

- CMPv3 requires relatively small PC memory and processing resources for standard operations.
- It is assumed that desktops/laptops are running typical office software applications (e.g. MS Office).
- If the standard operating environment is more strenuous, then system requirements may be greater.
- Lucid IQ recommends standardization of desktop and browser settings to minimize trouble-shooting.

<u>CLIENT/DESKTOP</u>	<b>Recommended Specifications:</b>	<b>MINIMUM Specifications:</b>
<b>Processor</b>	2.5Ghz processor	1.5Ghz processor
<b>Memory</b>	512MB RAM	256MB RAM
<b>Hard Drive</b>	5 GB	1 GB
<b>Software</b>	Windows XP Pro; Internet Explorer v7.0	Windows 2000; Internet Explorer v7.0
<b>Networking</b>	Network Interface Card (NIC) & connection	Network Interface Card (NIC) & connection
<b>Additional Hardware</b>	56k modem (optional)	56k modem (optional)

*These requirements are baseline configurations for a minimal CMPv3 system. Actual hardware and network requirements will vary based on number of users, number of cases, and data storage requirements.*

*Performance will be affected by other applications and should be tested for suitability. Standard server and network sizing models apply when selecting your own network and server hardware requirements.*

Some examples of different sizing tools can be found at

<http://www1.us.dell.com/content/topics/global.aspx/alliances/en/sizing?c=us&cs=555&l=en&s=biz>