

spatial dimension
AN MS GROUP BUSINESS



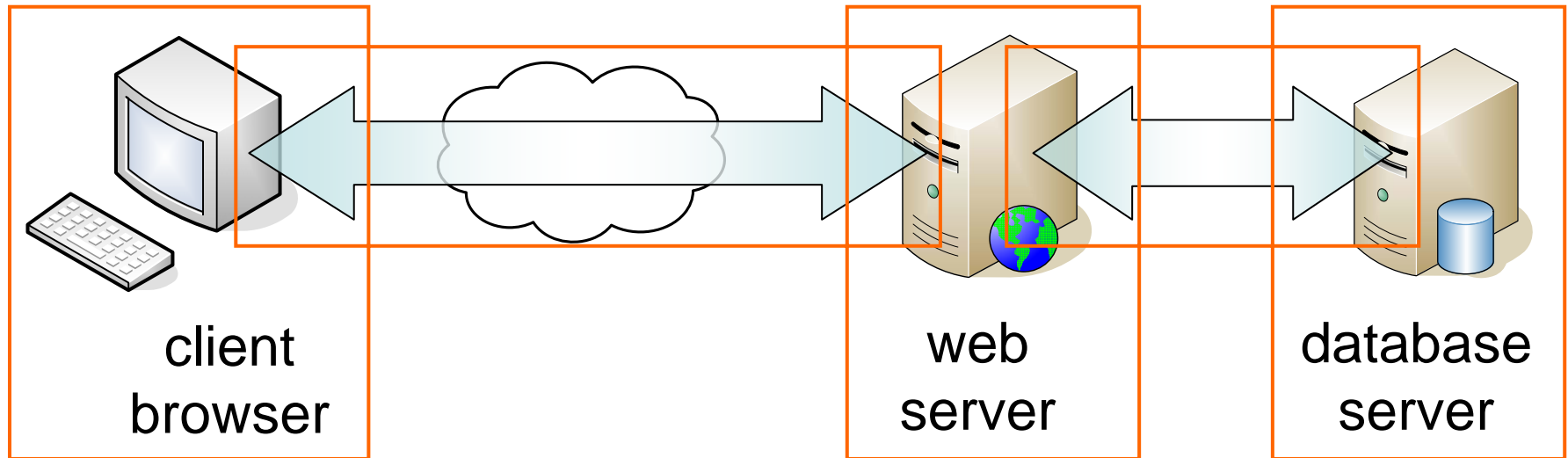
flexicadastre

System Scalability & Performance

Toby Mills
Chief Technical Officer

System Scalability & Performance

- Basic System Architecture



System Scalability & Performance

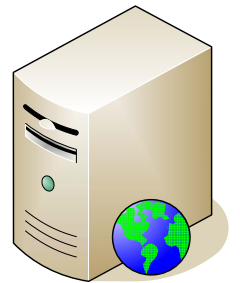
- Performance: Focus Areas
 - 1. Web Server
 - 2. Database Server
 - 3. Web Server – Database Communication
 - 4. Web Server – Client Communication
 - 5. Client web browser

System Scalability & Performance

- Performance: Perspectives
 - System (Software)
 - Infrastructure (Hardware)
 - Configuration

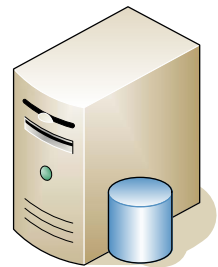
System Scalability & Performance

- Area: **Web Server**
 - System
 - FlexiCadaastre Code
 - Infrastructure
 - Web Server Specs
 - Configuration
 - IIS
 - Compression
 - Caching



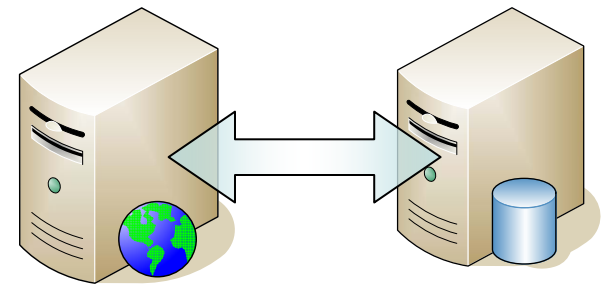
System Scalability & Performance

- Area: **Database Server**
 - System
 - Query structure
 - Infrastructure
 - Database Server Specs
 - Configuration
 - Indexing
 - Statistics



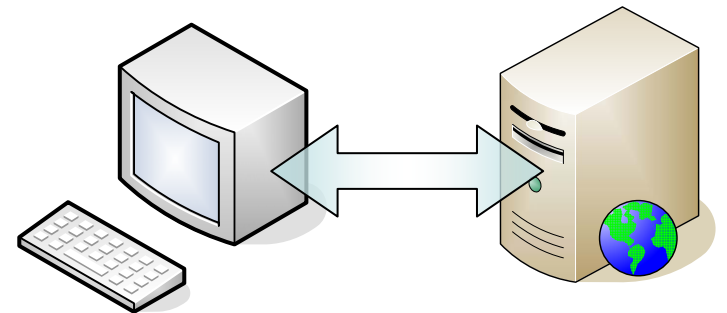
System Scalability & Performance

- Area: **Web Server - Database Communication**
 - System
 - Volume of data (Rows & Columns)
 - Caching
 - Infrastructure
 - LAN Configuration



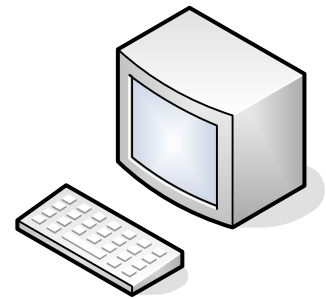
System Scalability & Performance

- Area: **Client - Web Server Communication**
 - System
 - Volume of data (Page Sizes)
 - Infrastructure
 - Bandwidth
 - Latency
 - LAN / WAN Configuration
 - Configuration
 - Caching



System Scalability & Performance

- Area: **Client Web Browser**
 - System
 - Infrastructure
 - Configuration
 - JavaScript
 - Popup Blockers
 - Viruses



System Scalability & Performance

- **Scalability:**

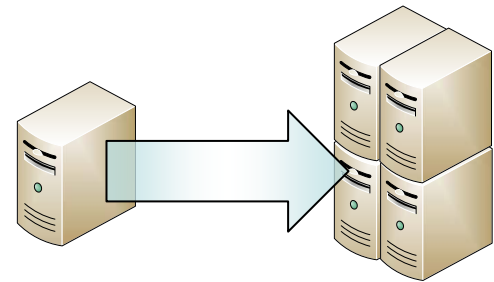
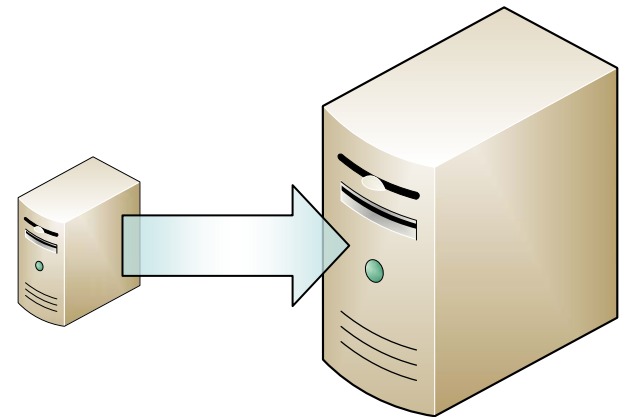
“ability to either handle growing amounts of work in a graceful manner or to be readily enlarged “

- **Scale vertically** (*scale up*)

“to add resources to a single node in a system”

- **Scale horizontally** (*scale out*)

“to add more nodes to a system”



System Scalability & Performance

- Regional Office Performance
- Bandwidth is the main bottleneck
- Comes at a premium
- Latency often a real problem
- Server side improvements in efficiency have little effect
 - need to reduce traffic
 - ensure maximum bandwidth available

System Scalability & Performance

- Performance is an area of continual focus
- Spatial Dimension works directly with clients to identify and resolve bottlenecks
- Currently undertaking a system-wide review with external consultant

CONCLUSION

Thank You