**City of Austin Technical Reference Model Template**

| **Technology** | **Area** | **Category** | **AFD** |
| --- | --- | --- | --- |
| Application Technology | Application and Web Server Software | Application Server Software |  |
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| Web Server Software |  |
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| Application Testing Software | Debugging Test Tools |  |
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| Function Testing Tools |  |
| Load and Performance Testing Tools |  |
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| Application Testing Software | System Testing Tools |  |
|  |
| Unit Testing Tools |  |
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| Development Tools | Analysis, Design and Modeling |  |
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| Application Development Tools |  |
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| Requirements Management |  |
| Software Change and Configuration Management Tools |  |
|  |
| Web Authoring Tools |  |
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| Integration Software | Device Integration |  |
| Enterprise Service Bus (ESB) |  |
| Service Registry |  |
| SOA Governance |  |
| Software Engines | Business Process Management Engines |  |
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| Business Rules Engines |  |
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| Geographic Information System (GIS) Engines |  |
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| Search Engines |  |
| Collaboration and Electronic Workplace | Collaboration Software | Computer Based Training (CBT) |  |
| Content Management |  |
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| Content Management |  |
| Electronic Messaging |  |
| Email and Calendaring |  |
| Process and Schedule Synchronization |  |
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| Real Time and Team Collaboration |  |
|  |
| Shared Whiteboard |  |
|  |
| Unified Messaging |  |
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| Productivity Software | Accounting and Finance |  |
|  |
| Case Management |  |
|  |
| Desktop Publishing |  |
|  |
| Enterprise Faxing |  |
| File Manager and Viewer |  |
|  |
| Graphics Design Software |  |
| Miscellaneous Productivity Tools and Utilities |  |
| Multimedia Software |  |
| Standard Office Suite |  |
| Surveys |  |
|  |
| Web Browsers |  |
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| Enterprise Architecture | Employment | Application |  |
|  |
| Framework |  |
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| Information Management Technologies | Business Intelligence and  Data Warehouse Platforms | Business Intelligence Platforms |  |
| Dashboard/Scorecard Tools |  |
| Data Analytics (Statistical Analytics, Prediction, and Modeling) |  |
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| Data Mining Tools |  |
|  |
| Data Warehouses |  |
|  |
| Geospatial Tools |  |
|  |
| Unstructured Data/Natural Language Processing |  |
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|  |
| Web Reporting Tools |  |
|  |
| Data Integration | Data at Rest |  |
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| Data in Motion (Common Message Terminology and Semantics) |  |
|  |
| Data Synchronization |  |
|  |
| Database Replication and Clustering |  |
|  |
| Extract, Transform, Load (ETL) |  |
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| Data Management | Columnar DBMS |  |
|  |
| Database Connectivity |  |
|  |
| Database Related Management Tools |  |
|  |
| Object Oriented DBMS |  |
| Relational DBMS |  |
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|  |
| Network and Telecommunications | End User Computer Devices | Hardened Laptops |  |
|  |
| Mobile Hardware |  |
|  |
| Personal Computers (PCs) |  |
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|  |
| Transport | Cabling |  |
| Local/Campus Area Network (LAN/CAN) |  |
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| Wide Area Network (WAN) |  |
|  |
| Wireless and Mobile Networks | Aircards |  |
|  |
|  |
| Cellular Networks |  |
|  |
| Pagers |  |
| Public WiFi |  |
|  |
| Radio |  |
|  |
| Satellite |  |
| Secure WiFi |  |
| Platforms and Storage | Cloud Services/Virtualization | Cloud Technologies |  |
|  |
| Virtualization Software |  |
|  |
| Operating Systems | Desktop/Laptop |  |
|  |
| Mainframe |  |
| Mobile Device |  |
|  |
| Server |  |
|  |
| Storage | Long Term Back-up |  |
|  |
| Operational Recovery |  |
|  |
| Production |  |
|  |
| System Management Tools | Logging |  |
|  |
| Network Performance Optimization |  |
|  |
| Patch Management |  |
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| System Management | Network Infrastructure | Load Balancing and Failover |  |
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| Network Name and Address |  |
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| Switching and Routing |  |
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| System Management Tools | Alert Management |  |
|  |
| Application Management |  |
| Asset Management and Work Order |  |
|  |
| Data Center Automation Software |  |
|  |
| Disaster Recovery |  |
| Monitoring |  |
|  |
| Remote Desktop Management |  |
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| System Change and Configuration Management |  |
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