# DoTS Manual for DPS Subject Matter Experts

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1.0 A Message from Tom Stevens

At the Department of Technology Services (DoTS) we place special emphasis on the “Services” part of our name. Serving our customers well is the highest priority for this department. Quality customer service, responsiveness to needs and rapid support are the themes we aim to embody.

Our mission at DoTS involves supporting a large number of enterprise systems that 1) are critical to helping students learn, and 2) provide support that makes student learning possible. Effective coordination between DoTS and the users of these systems during deployment and production is essential for us to provide quality customer service. We routinely rely on the designated Subject Matter Experts (SME) for each system to bring about this coordination.

The purpose of this manual is to provide each SME with a single source of vital information needed to do his or her job. It is a living document and will be posted on the SME web page and updated and revised as required. If you have any suggestions or comments concerning this manual please contact the DoTS Project Management Group at 764-3588.

Sincerely,

Thomas B. Stevens
Chief Technology Officer
Denver Public Schools
2.0 Subject Matter Expert (SME) Responsibilities

2.1 General
The Subject Matter Expert (SME) is the point of contact between DoTS and the user community. As such the SME should maintain open communication with all concerned and should take the lead in identifying problems, issues, and future requirements. SMEs responsible for applications that reside on the DPS network will be referred to as Enterprise Application SMEs. SMEs responsible for application that reside on individual personal computers and do not have network interfaces will be referred to Desktop Application SMEs. Each SME should hold periodic meetings with system users to facilitate open communication and determine user expectations. Also, it is important that each SME maintain a strong technical understand of the software solution and subsystems as well the business processes they support.

2.2 Specific SME responsibilities

2.2.1 System Knowledge
- Each SME should be familiar with the workflow; processes and business rules associated with his/her application and is encouraged to maintain a repository of this information.

2.2.2 Budget Submission:
- Ensure all first year costs for new implementations are included in the user agency budget. This will include purchase of hardware, software, first year maintenance, and consultant costs.
- Ensure funds are transferred to the DoTS budget for all maintenance costs following the first fiscal year of implementation.

2.2.2 Support Scheduling
- In June and January submit a DoTS Technical Support Forecast, which is a projection of new upgrades, implementations and routine support required from DoTS for the next twelve months. Routine support will include, but not be limited to processing for end of calendar year and school year end. This report should be submitted through the SME web page. The form for this report is posted on the SME web page. Enterprise Application SMEs should submit a negative report if DoTS support is not required for the application during the reporting period. Negative reports will not be required for desktop applications.
- Work closely with the DoTS staff regarding support for new software releases.
- Submit requests for unscheduled support to the DoTS hotline.
2.2.3 Data Quality Monitoring
- Monitor the quality of data across the software solution databases.
- Identify data quality issues and track problem resolutions with appropriate users.

2.2.4 Production Problem Notification and Resolution
- Notify DoTS hotline of all problems/questions that cannot be solved by user departments.
- Document and track status of all problems and issues.
- Communicate problems and issues to all affected users.

2.2.5 New Software Approval
- All plans and projects that have a technology component that utilizes the DPSNet must comply with published standards developed by the DoTS Technical Architecture Review Committee (TARC). The SME must ensure that any use of DPSNet that is not included in the published standards is reviewed by the TARC. These standards are contained in the document “Helping Us Serve You Better-A Guide to DoTS Services” located on the DoTS web site

2.2.6 User Testing
- Coordinate the development of test plans, test environments and test scripts.
- Facilitate user testing of all software releases.

2.2.7 User Procedures
- Ensure users of the software solution comply with established policies, procedures, schedules, timelines, etc.

2.2.8 Project Management
- Manage appropriate activities with the DoTS Project Lite methodology.
- Request project mentoring support from DoTS, if required. For larger projects request DoTS Project Leader support.

2.2.9 Training
- For software solutions that do not have another mechanism, the SME will provide a method of training for all qualified users. Establishing a dedicated environment for training and coordination with the technical staff is encouraged. Training for upgrades and new releases should be coordinated with the DoTS training staff.

2.2.10 Vendor Relations
- Serve as the point of contact with vendors for application patches, upgrades and other related issues.
• Monitor vendor web site for version, patch, and training information. Responsible for understanding the relevance of patches to the DPS implementation.
• Notify the appropriate management of costs associated with upgrade requirements.

2.2.11 User Group Participation
• Participate in appropriate user groups at the local, state, or national level as appropriate.
• Monitor user group mailings and web sites for appropriate information.

3.0 User Department Responsibilities

User departments will be responsible for appointing a SME for each application supported by DoTS. The department will include the SME on all communications concerning the application and will provide funding for formal training when required.

4.0 DoTS Responsibilities

4.1 General
The Department of Technology Services will be responsible for ensuring that the appropriate SMEs are included on all correspondence originating in DoTS regarding their respective applications. DoTS will also maintain the SME web page including the SME Handbook and templates for standard processes and documents.

4.2 Service Level Agreements (SLAs)
DoTS will facilitate establishment of SLAs when required for applications with complex support requirements. Examples of SLAs are available from DoTS.

5.0 Project Management

5.1 General
In order to prioritize work and use resources more efficiently, DoTS has adopted formal project management using standard methodologies recommended by the Project Management Institute (PMI). The PMI defines a project as a temporary endeavor undertaken to create a specific product or service. Unlike a program, which is ongoing, a project has definite start and ending dates. A DPS project is defined as a body of work that would take 60 person-days to complete or whose total cost is greater than $100,000. Work effort that is less than 60 person-days or less than $100,000 are managed with a condensed project methodology called Project Lite.

5.2 Advantages of Project Management.
Project management has the following advantages over an unstructured approach:
• Shareholder commitment is obtained at project initiation. The project scope and charter are reviewed and accepted by all major participants at the beginning of the project.

• Projects formally establishes the objective of the endeavor. The objective must be clear and measurable. Scope management ensures that the project sponsor formally approve any changes to the objective or the scope of the effort.

• All assumptions, such as availability of resources or available time, are formally documented.

• Constraints, which limit how the project can be conducted, are also documented. Typically constraints are resources, allowable costs or completion schedule.

• A formal project schedule is established and progress is tracked.

• Risks and issues are identified and addressed.

• Resource requirements are identified and included in the project schedule.

5.3 Project Management Assistance
For work effort that satisfies the definition of a DPS project, the primary stakeholder or SME should contact the DoTS Project Management Group for assistance in establishing a project. The Project Management Group will develop templates for project documents. If a Project Lite is required, the primary stakeholder or SME should contact either a person on their staff who has been trained in the Project Lite methodology or the DoTS Project Management Group for assistance.

6.0 Change Control

6.1 Change Control is the mechanism whereby district staff is notified of changes to production system environments in a proactive and timely manner. All changes to production systems (not including data changes done through the application) must be brought to a Change Control meeting before the change may be implemented. If an approved Standard Operating Procedure (SOP) is used the change does not have to go to a Change Control meeting before implementation. Some activities will be reviewed via the change control process that normally would not be defined as a change to a production system. These activities are introduced to the change control process at the request of a Supervisor/Director. If you need additional information on the Change Control Process, please contact the DoTS Hotline.

6.2 Change Control meetings are held weekly on Mondays at 1:00 p.m. in the DoTS Conference Room 1.

6.2.1 In addition to the DoTS Directors, the meeting is attended by Supervisors from each DoTS Unit and/or a knowledgeable representative from each DoTS work group and the Tech Cell. These representatives are required to attend every meeting and report the results back to the members of their team. SMEs may attend at their discretion.
6.2.2 Any member of DoTS, the Tech Cell or any SME can submit Change Control items. Entries must be submitted by 8:00 a.m. on Mondays (prior to the 1:00 pm meeting). Any Change Control input into the system after 8:00 a.m. Monday will not be reviewed at 1:00 p.m. as a Scheduled item. If necessary, it can be reported as an Emergency item, but it should be a scheduled item for the following week’s regular Change Control meeting.

7.0 Technical Architectural Review Committee (TARC)

7.1 TARC Mission
The mission of the TARC is to provide direction for approval of technology solutions implemented on the DPSNet. The DPSNet is an electronic communications system connecting computers, telephones, video systems, and individuals throughout the district. All plans and projects that have a technology component that utilizes the DPSNet must comply with published standards developed by TARC. Any use of DPSNet that is not included in the published standards requires review from the TARC for recommendation of approval by DoTS. Implementation of a project or plan could be delayed or cancelled if enough time is not allowed for TARC to review the technology components. It is the responsibility of the individuals proposing the plan or project to prepare and present technical materials for review by TARC.

7.2 Non Standard Equipment and Software Policy
Each SME should be aware of the following policies concerning the use of non-standard equipment or software on the DPSNet.

- Connection of non-standard equipment to DPSNet requires approval of DoTS before it is implemented.

- Use of non-standard software requires approval of DoTS before it is installed and/or configured and connected to DPSNet.

- Relocation of equipment connected to DPSNet requires approval of DoTS authorized individuals. DoTS authorized individuals are those trained and supported by DoTS.

- The SME will submit a request to TARC whenever they want to use technology not published in the district standards. Procedures for submitting a request to TARC as well as approved standards are contained in the DoTS Business Manual.

8.0 Client Services
The DoTS Hotline is staffed from 7:00 a.m. – 4:30 p.m. each District working day. All requests for DoTS support must be submitted through the Hotline. Customers have several options to reach the Hotline; by telephone, voicemail, e-mail and/or web form submission. All technology-related service calls are filtered through the Hotline for appropriate tracking, assignment and
escalation based on priority. The tracking system is HEAT, marketed by Front Range Solutions, Inc. In summary:

- An average of 250-300 calls per day are logged.
- Approximate desk resolution average is 40%. Calls that cannot be resolved at the desk are forwarded to DoTS software and network technicians for resolution.
- Technicians are responsible for providing in-depth application knowledge (Level II) on the major applications supported by the District.
- The District has one point of contact for all technology-related service issues.
- Calls are assigned to appropriate technicians if on-site service is needed.
- Trend analysis is available from database reporting that assists with problem areas that might require further training or technical review.
- Each service call is assigned a priority that determines appropriate escalation and response.
- DoTS management staff is made aware of employee call volume on a weekly basis.
- Client Support matrices are created, that will clearly define the appropriate service levels and escalation routines for each supported application.
- Service Level Agreements are being created for the District’s charter schools.
- Knowledge trees are being created that answer the most commonly-asked questions.

8.3 SME Client Support Coordination:

Each SME is responsible for requesting DoTS Client Support prior to a software implementation. Initial contact should be no later than sixty days prior to implementation. Information provided by the SME will be the basis for the DoTS Client Support Matrix and Client Support Plan when required. The SME is responsible for providing updates to DoTS Client Support whenever support requirements change.

9.0 System Support

9.1 DoTS Systems Group
The DoTS System Group is responsible for the back-end applications and services such as Oracle database, Exchange e-mail, SQL2000 databases, Windows 2000 Active Directory and terminal services, and for the associated servers. The Systems Group is not responsible for desktop applications.

9.2 Upgrades to the Production Environment
Upgrades and maintenance to the production environment are subject to project management, TARC, and Change Control processes. System environment definitions are contained in the DoTS Primer, located on the DoTS website (http://dotsweb.denver.k12.co.us/).

9.3 Contacts
Notification distribution lists for development, test and training environments are contained in the DoTS Primer, located on the DoTS website (http://dotsweb.denver.k12.co.us/).

10.0 Software Testing

10.1 General
Software Testing is an integral part of any software implementation or upgrade. It is essential that the software functionality, being implemented within the District, be fully tested by the users of the system with satisfactory results (meets user requirements). The SME is responsible for coordinating the development of test environments and for facilitating user testing of all software releases.

10.2 Test Objectives
Objectives of the User Acceptance Test are for a group of key users to:
- Validate system set-up for transactions and user access
- Confirm use of system in performing business processes
- Verify performance on business critical functions
- Confirm integrity of converted and additional data
- Assess results and sign off go-live readiness

10.3 Test Planning
Testing should be planned in order to provide a realistic and adequate exposure of the system to all reasonably expected events. The testing is based upon the User Requirements Specifications to which the system should conform. Tests on hardware and software must always be in accordance with a documented test plan. The key point about a test plan is that it not only documents what will be tested, but also the expected results. In addition, a test plan can identify additional areas which should be tested and make the resultant plan more comprehensive.

10.4 Test Documentation
The SME should ensure that results of the testing are documented through test scripts, screen prints, reports, job runs, etc. A requirements traceability matrix should be completed for any new functionality to be implemented for the District. Having completed the tests, the results need to be reviewed and a determination of whether or not any results have failed to meet an acceptable standard. All finalized testing documentation and test plans should be stored in the appropriate project folder on the shared drive. Templates for test plans and documents are contained on the SME web page under the Resources tab.

10.5 Reports.
Reports should be returned to the developers describing the problems discovered during testing. A formalized procedure should be followed for communicating results of tests and corrections of known problems back and forth between the client community, vendor and developers.

10.6 User Sign Off.
Finally, a “user sign-off” should occur. A form should be signed by the project leader indicating that the system, documentation, and training materials have passed all tests within acceptable margins.

11.0 Planning and Budgeting

11.1 Funding Responsibility
The DoTS budget does not include funds for new software implementations or enhancements. It is the responsibility of the user agencies to ensure that these funds are included in their budget. This will include all implementation costs, such as; purchase of hardware, software, first year maintenance, technical support and consultant costs.

11.2 Operations and Maintenance Costs, 2nd Year
The user agency is responsible for operations and maintenance costs (Technical Support Agreements and License renewal) following the first fiscal year of implementation. The SME should ensure that a one time budget transfer of these funds are transferred to the DoTS budget. After the transfer DoTS will be responsible for any inflationary cost increases to these costs.

11.3 Budget Assistance
The SME should contact the DoTS Director of Technology Business Operations (extension 3775) with any questions concerning the budget process for DoTS support and the coordination of budget transfer referred to in 11.2.

11.4 DoTS Support Forecast
Each SME is responsible for submitting a semi-annual DoTS Support Forecast by the last working of June and January each year. This report will identify DoTS support required for the next twelve months. The form for submitting this report is contained on the SME web page.

12.0 User Groups and Certification

User groups are a good way to keep abreast of vendor developments and issues common to other users. These groups also provide a forum for users to communicate problems and issues to the vendors. SMEs are encouraged to participate in user groups for their respective software applications and where appropriate to become certified by the application vendor.