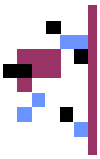

AdvanTech, LLC
Innovative Technology Management

State of Hawaii
Department of Taxation
Tax System Modernization Program
Independent Verification and Validation

Year 2 Assessment 2

July 2017

Executive Summary

AdvanTech, LLC, has been contracted by the State of Hawaii, Department of Taxation (DoTAX) to perform Independent Verification and Validation (IV&V) services for the Tax System Modernization (TSM) Program. Under the terms of the contract, AdvanTech will perform periodic assessments of the TSM Program to help identify strengths, weaknesses, issues, and risks related to the implementation of the TSM Program, and to make recommendations for improving the implementation process.

This document describes the findings and recommendations related to AdvanTech's sixth assessment of the TSM Program, which represents Year 2 Assessment 2. This sixth assessment is focused primarily on the readiness of the TSM system and DoTAX personnel for cutover of Rollout 3, scheduled for August 14, 2017. Secondarily, the assessment reviews any operational and support issues for TSM components already in production, and any issues related to ongoing program execution.

The AdvanTech team assigned to perform this assessment was comprised of individuals with significant experience with the planning, management, and assessment of tax processing and administration systems, including numerous projects employing the GenTax system similar to that being implemented by Fast Enterprises for DoTAX.

The process to perform the assessment included:

- Interviewing key TSM Program team members and certain other stakeholders, some individually and others in focus group sessions.
- Attending a sampling of regular program meetings.
- Reviewing various program documents, the FCR database, and other artifacts.

The specifics of these activities are detailed in the body of this report. Key findings from the sixth assessment include:

R3 Readiness

In general, we believe that the elements are in place for a successful R3 cutover on schedule. Key factors include:

Technical Readiness

- All configuration is basically completed except for any needed adjustments identified in the final cycles of testing. It should be recognized that configuration will not be perfect and users should expect some small issues, but we did not identify anything major.

- Testing is largely completed, though it appeared to be supported by users not sufficiently adept at the business and the system, and a bit less rigorous than other projects on which AdvanTech was involved, leaving a risk that some issues with system design or performance may not have been surfaced during the testing process.
    - System testing has been completed with the exception of 71 scenarios (out of a total of 10,338 scenarios) still being worked, which have likely been completed by the time of this report.
    - All four planned cycles of end-to-end testing have been completed.
- The data conversion process has completed the planned 10 mock conversions and our understanding is that both Fast and DoTAX resources have verified the results. There are still some open elements of legacy data clean-up, which could result in some post-conversion manual effort.

Business Readiness

- Tier 3 (job specific) training was 64% complete as of July 31, and will continue almost to cutover date in accordance with the plan to ensure training is as fresh as possible at cutover.
- Training seems to have been positively received by the staff – of course people wanted more training, particularly more detailed job-specific training.
- There are some concerns regarding how users will get support and find information after go-live. The “Expert User” model does not appear to be taking hold as “Experts” do not feel like they are experts.
- We also have a concern that middle management does not seem fully bought. From our discussions, and borne out by review of usage logs, some managers are minimally using the system, or not at all. It was clear from our discussions that some key managers are not acting as champions, and are seemingly disconnected from the process.
- The call center staffing has been increased and the automated call system has been refined to aid with the taxpayer support function. In addition, the numbers of calls from existing online users has reduced considerably while the total number of online users continues to grow. However, there is still a risk that the combination of changed and new functionality (including the V10 upgrade discussed below), along with the number of new users expected as part of R3, may generate more activity than the call center can handle.

Taxpayer Readiness

- Multiple communications have been sent to taxpayers regarding any new and changed eServices functionality coming with R3 cutover.

- The new Information Officers are a positive addition to the team, but we are concerned with what seems a lack of "pants-on-fire" so close to rollout.
- There is a risk in the fact that TSM is rolling out the newest version (V10) of the core GenTax online functionality in conjunction with R3. The differences are minor and mostly improvements, but change-is-change and some taxpayers may get confused, requiring additional and/or a higher level of support.

Ongoing Production Support

The production environment and the production support processes appear to be functioning effectively:

- The number of production issues and the turnaround for resolving those issues continues to be in the normal range for GenTax implementations.
- DoTAX users continue to gain comfort with the new system as they come up the learning curve, but also continue to struggle with having to use two different systems to perform their work. There are still some open system issues and enhancement requests, but these are being handled through the normal production support process.
- As noted above, the number of calls from taxpayers requesting support for the online services has diminished significantly over the past six months, especially considering the number of taxpayers who have registered for online filing has increased by almost 50% in that same period.
- The process for preparing documentation, particularly in the areas of system requirements, system configuration, and business process changes continues to improve.
- The reliability issues with the network switching equipment appear to have been resolved.

Program Execution

The bulk of program activities are currently focused on preparing for R3 cutover. There are a few key issues related to program execution that require management attention:

- There has been a significant change in the management structure for the TSM Program, in particular moving the overall program management responsibility and the TSM PMO staff from DoTAX to the State's Enterprise Technology Services Office (ETS). This change has created a level of uncertainty and angst among some TSM and DoTAX staff. Examples include:
    - During the IV&V discussions, it seemed as if some people were afraid to talk (e.g. keep my head down and mouth shut) or feel they were told not to talk.

- In some cases, morale appears to have fallen, with an impression that "the change in management is because the project is expected to fail," leading to attitudes such as "I'm not going to try very hard" or "I don't need to learn this because it is all going to be shut down."
- We heard statements from more than one staff member such as "ETS stole the project away from DoTAX."
- Some people believe that key DoTAX personnel are not being included in the TSM decision making process to the appropriate level.

While much of this can be considered typical organization change "noise", our recommendation is that this "noise" be very carefully monitored and that there be constant communication to help the staff overcome these negative impressions. It will be very important in the short term to clearly define any changes in the governance structure, roles and responsibilities, and processes for communication and collaboration between TSM, DoTAX, and ETS. There should also be a stress on ensuring communications regarding the program are open and straightforward to help set expectations and reduce the possibility for misunderstanding.

Even though the management of the program has been assigned to the State CIO's office, we need to emphasize that TSM should be considered business-driven, not technology-driven. Ineffective interaction between IT (in this case ETS), the business (in this case DoTAX), and the vendor (in this case Fast) is one of the key causes of failure in large programs of this nature.

- There is a comprehensive program schedule for R3. However, gaining a clear understanding of the status of the plan proved to be problematic, with some of the tasks not showing a planned start and/or finish date. For some other tasks, planned and actual dates relating to deliverables were adjusted, making it difficult to identify where there were delays or non-occurrence of key reviews and hand-offs. These elements should be updated to enable the ability to effectively assess progress and identify any schedule risks.
- It appears that the program issues and risks registers are not always updated on a timely basis, and action items are difficult to track and ensure completion, as they are embedded in meeting notes as opposed to a separate register.
- Some concern has been expressed that TSM is being deployed as a tactical fix for replacing aging systems, but that there is no overall DoTAX strategic plan and framework, including key performance indicators, that reflect the overall benefit of the program and how success will be measured. We recommend DoTAX and ETS work together to review the program charter to determine if it is aligned with a broader agency strategic plan, and to work with Fast to help develop appropriate performance metrics.

Key Risks

As with all major information technology programs, there are a number of risks of varying probabilities and impacts. The following are the most significant risks for the TSM Program at this point in time:

- As noted above, there will be changes and additions to the online functionality for taxpayers. Because there were issues with the online registration process during R2, creating some negative perceptions of TSM, it is even more imperative that the online functionality work well, and that DoTAX and TSM are better prepared to support taxpayers with any issues they may incur. TSM and DoTAX have taken various actions to mitigate the risk, which are discussed in the detailed findings below.
- As discussed in the previous assessment, the Legislature denied the request for the second round of funding for the program for the current fiscal year. The legacy systems (both hardware and software) are in their end-of-life stage. DoTAX feels it is imperative to keep moving forward with TSM to minimize the possibility of a critical disruption of service. If the additional required funding is not approved in the next legislative session, the TSM Program may not be successfully completed in full. This would require DoTAX to work in multiple systems (the legacy system and the new GenTax system), prevent DoTAX from realizing fully the anticipated benefits, and leave some exposure to the failure of the remaining legacy systems.

  DoTAX is shifting some operating funds into the program for this fiscal year to ensure completion of Rollout 3 and continuation of work on the TSM Program until the request for the additional program funds is submitted and acted upon in the next legislative session.
- AdvanTech remains concerned that the DoTAX goal to be fully self-maintaining at the end of the warranty period is unrealistic. It is important to note that very few states, if any, that have implemented GenTax have achieved complete self-maintenance even after many years past the final go-live. None have achieved complete self-support immediately after the final go-live. Assuming any significant level of ongoing maintenance requires a great deal of advance planning, investments in DoTAX staff, and ongoing provision of information and documentation about changes to the core product code. To accomplish this, significant training must occur for the DoTAX technical IT staff, business analysts, and expert users in order for DoTAX to be able to support the TSM system going forward.
    - Comprehensive technical knowledge transfer (KT) tracking has been initiated, but it will be a major challenge to get DoTAX technical personnel ready to assume full maintenance responsibility by the end of the implementation process. The DoTAX development personnel assigned to the program continue to make significant progress in gaining experience

with the new systems and handling increasingly complex SQRs. However, in order to have any chance of achieving self-maintenance, we believe additional staff should be involved in the KT process beginning with the outset of R4 activities.

  - Possible retirements of some DoTAX personnel during or shortly after the implementation program will add complexity to KT planning.
  - DoTAX should begin developing a contingency plan for ongoing maintenance and support in the event it is not able to achieve complete self-maintenance capability. This contingency plan should identify the possible split of post-Implementation responsibilities between DoTAX and Fast, and the related budgetary impacts.

- The methodology and responsibility for business process reengineering continues to be refined. During R3, DoTAX and the TSM Program have begun the process for looking for opportunities to make business process changes proactively. Fast has assigned two individuals with backgrounds in BPR and OCM to work part time with the TSM Program Office and DoTAX to develop plans for both business process and organizational change. They have performed surveys and developed workshops to engage DoTAX management in the BPR and OCM process. However, the process has just gotten underway on a meaningful basis, so it will take time to effect any key changes.

Assessment 6 Process

AdvanTech's approach to IV&V is to look at all aspects of program execution. We are not just focusing on vendor performance, but on all the pieces that comprise a complex program of the nature of TSM. As indicated above, the primary areas of focus for this assessment are on the readiness of the TSM system and DoTAX personnel for cutover of Rollout 3, scheduled for August 14, 2017, and any operational and support issues for TSM components already in production. We also assess any issues and risks related to ongoing program execution.

As part of this IV&V assessment, we have also been asked provide comments and information that may be helpful to the program review/health assessment that is currently being performed under the direction of the State CIO.

AdvanTech employed various methodologies to gather and compile input related to project status, progress, and performance. The primary steps in the input gathering stage were interviewing key agency and vendor personnel, arranging focus group meetings to discuss various implementation activities, attending project meetings, and reviewing relevant project documents and artifacts. As part of our report, we have included an updated status for any recommendations made in the previous report, and a separate Issues & Risks Register.

Interviews

One important element in assessing the status and condition of the program is the gathering of input from various key stakeholders. To compile this input, the AdvanTech team held a number of onsite and telephone one-on-one and group interviews.

Participants were asked to be candid in their responses to the team's questions, and were assured that their feedback will be reported in a manner so as not to identify the specific input as coming from specific individuals.

The following represents the list of stakeholders AdvanTech met during the sixth assessment process:

Assessment Scope Review

- TSM Executive Sponsor/State CIO – Todd Nacapuy
- DoTAX Deputy Director – Damien Elefante
- State CIO Office – Mark Choi
- State CIO Office – Rona Suzuki

Preliminary Findings Exit Review

- TSM Executive Sponsor/State CIO – Todd Nacapuy
- DoTAX Deputy Director – Damien Elefante
- State CIO Office – Mark Choi
- State CIO Office – Rona Suzuki

Individual Interviews

- DoTAX Director – Maria Zielinski (via telephone)
- DoTAX CIO – Robert Su (via telephone)
- DoTAX Administrator, Compliance – Kevin Wakayama
- DoTAX Administrator, Taxpayer Services & Processing – Nicki Ann Thompson
- TSM Sr. Security Analyst & Team 1 Lead – Michael Le
- TSM Sr. Project Manager & Team 2 Lead – Latrece Cotton
- TSM Program Special Assistant & Team 3 Lead – Joshua Lee
- TSM Sr. Business Analyst & Team 4 Lead – Valerie Iinuma
- DoTAX Development and Conversion Lead – Helen Ng (via telephone)
- TSM Sr. Quality Assurance Analyst – Stephen Wilson
- DoTAX Departmental BA, Audit – Lynn Lyckman
- DoTAX Revenue Accounting – Jennifer Oshiro (via telephone)
- DoTAX Practitioner Priority Specialist – Jenny Xu
- Fast Enterprises Project Director – Delena Bratton
- Fast Enterprises Solution Architect – James Doucette
- Fast Enterprises Configuration Specialist Lead – Kara Beck
- Fast Enterprises Requirements/Business Rules Lead – Rhea Reed
- Fast Enterprises Testing Lead – Xin Chen
- Fast Enterprises Training Lead – Jenna Kovacs
- Fast Enterprises Technical Lead – Victor Qin
- Fast Enterprises Front End Processing Coordinator – Jacob Beck

Group Interviews

- TSM PMO – Latrece Cotton, Valerie Iinuma, Joshua Lee, Stephen Wilson
- DoTAX Taxpayer Services & Processing Management Team – Nicki Ann Thompson, Todd Kuromoto, Gayle McGee
- DoTAX Audit – Kevin Wakayama, Madelaina Lai, Val Gabaon, Ikaika Rawlins, Duquesne Hulihee (Hilo), Erin Tsuda (Kauai), Kathy Uehara (Maui)
- DoTAX Collections – Donald Kuriki, Glen Shinbo, Laura Takahashi, Val Gabaon, Duquesne Hulihee (Hilo), Erin Tsuda (Kauai)
- DoTAX Primary Business Analysts – Alice Lau, Lola Miyashiro, Leslie Terasako

- DoTAX Departmental Business Analysts – Bonnie Fujii, Young Kwak, Karen Velasco
- Fast Enterprises Development & Conversion Leads
  - Implementation Lead – Kara Beck
  - Processing & E-Services – Sean Murphy
  - Processing Coordinator – Jacob Beck
  - Returns & Payments – Curtis James
  - Audit & Collections – Troy Daniels
  - Conversion – Brian Rahne
- External Communications
  - Deborah Kwan – DoTAX Program Information Officer
  - Keith DeMello – ETS Senior Communications Manager
  - Joshua Lee – TSM PMO

Attend Meetings

Another method used by the AdvanTech team to gain insight into project progress, issues and risks, is to attend some sample meetings. We also use this approach to determine a sense of team dynamics. The attendee(s) from AdvanTech are not typically active participants in the meeting, but are there to listen and observe. However, we will provide input related to experience on other projects if requested.

Due to scheduling conflicts and the fact that there were not many regular meetings being held during the period of our visit, we only attended the following session for the sixth assessment:

- DoTAX Business Process Reengineering Workshop
  - Leaders: Will Rice and Jamie Woodward – Fast Enterprises
  - Attendees: All DoTAX Managers, Maria Zielinski, Robert Su

Document Review

Another element of the assessment process is the review of key project documents and artifacts. The purpose of AdvanTech's review is not to determine whether the documents meet contractual requirements. Our focus is to determine if they represent solid practices in each area, and provide a reasonable basis for executing and managing the project, including whether they provide a basis for monitoring various project activities in accordance with the plans for those activities.

For this sixth assessment, the AdvanTech team reviewed the following project documents and artifacts:

- Detailed Schedule for Current Rollout (as represented in the FCR Workbench)
- Project Status Reports

- Project Issues Log
- Project Risk Management Log
- SQRs and SQR Statistics
- Knowledge Transfer Progress Update
- DoTAX Business Process Reengineering Workshop Agenda
- DoTAX Business Process Reengineering Questionnaire Results
- Pull List
- List of Change Requests
- R3 Rollout – External Communications Activity Plan
- Governor's Press Release

Assessment 6 Findings

As noted in the Process section above, the primary area of focus for this assessment is on the readiness of the TSM system and DoTAX personnel for cutover of Rollout 3, scheduled for August 14, 2017. The AdvanTech team looked at many areas of project activity to assess readiness, which are discussed in detail in this section. In reviewing those many areas, we assessed the readiness for cutover from three general perspectives as follows:

Technical Readiness

- Is system configuration complete and has it been tested sufficiently.
- Has the process for converting data from the existing system been completed and tested, and has the data been sufficiently purified.
- Does the cutover plan address all the necessary steps in sufficient detail, including the process for discontinuing the R3 taxes in the legacy system.

Business Readiness

- Have the users been provided sufficient training, and what is their level of satisfaction and comfort with that training.
- Are the plans for providing support to the users upon cutover ready and effective.
- Have the expected impacts on business processes been identified and communicated.
- Is management support for the program solid and evident throughout the organization.

Taxpayer Readiness

- Has there been a meaningful outreach program to taxpayers and practitioners explaining what to expect with new and changed elements of the online services.
- Have the processes and resources for providing support to taxpayers been finalized.

In general, we believe that the elements are in place for a successful R3 cutover on schedule. Key factors, which are discussed in more detail throughout this section, include:

- All configuration is basically completed except for any needed adjustments being identified in the final cycles of testing.
- System testing has been completed with the exception of 71 scenarios (out of a total of 10,338 scenarios) still being worked.
- All four planned cycles of end-to-end testing have been completed.

- The data conversion process is in solid shape, with 10 mock conversions having been completed and verified.
- Tier 1 (generic computer based) and Tier 2 (general system classroom) training has been completed. Tier 3 (job specific classroom) training was 64% complete as of July 31.
- The detailed cutover and user support plans have been finalized.
- Multiple communications have been sent to taxpayers regarding any new and changed eServices functionality coming with R3 cutover.
- The call center staffing has been increased and the automated call system has been refined to provide more selective routing to aid with the taxpayer support function.

While we believe that R3 cutover is to go forward as planned, there are a number of important issues related to program execution that should be addressed to enhance future rollouts and better prepare for post-implementation.

- **There does not appear to be a set of key performance indicators aligned with an agency strategic plan to measure the overall benefit of the program.** DoTAX should work with Fast to develop appropriate performance metrics, and a method for monitoring and reporting against those metrics. The performance indicators should be benchmarked with other revenue/tax agencies that have implemented similar programs.
- **Funding for next phase must be resolved.** Lack of clarity around funding will continue to undermine the confidence of TSM and DoTax staff that the system build will continue into the future, thus requiring DoTAX to work in multiple systems and leaving some exposure to the failure of the remaining legacy systems.

  DoTAX is shifting some operating funds into the program for this fiscal year to ensure completion of Rollout 3 and continuation of work on the TSM Program until the request for the additional program funds is resubmitted and acted upon in the next legislative session. DoTAX and Fast are also analyzing the impact of switching the sequence of rollouts (deferring Individual Income Tax to R5, and moving R5 taxes to R4) to enable the program to continue through this fiscal year.
- **The change in the management structure for the TSM Program**, in particular moving the overall program management responsibility and the TSM PMO staff from DoTAX to the State's Enterprise Technology Services Office (ETS), has created a level of uncertainty and angst among some TSM and DoTAX staff. Examples include:

- During the IV&V discussions, it seemed as if some people were afraid to talk (e.g. keep my head down and mouth shut) or feel they were told not to talk.
- In some cases, morale appears to have fallen, with an impression that "the change in management is because the project is expected to fail," leading to attitudes such as "I'm not going to try very hard" or "I don't need to learn this because it is all going to be shut down."
- We heard statements from more than one staff member such as "ETS stole the project away from DoTAX."
- Some people believe that key DoTAX personnel are not being included in the TSM decision making process to the appropriate level.

Effective participation and decision making for DoTax is at serious risk. Any changes in the governance structure, roles and responsibilities, and processes for communication and collaboration between TSM, DoTAX, and ETS need to be documented and communicated on a priority basis. The Fast Project Director needs a clear single point of contact counterpart, and points of contact and counterparts for the Fast team leads need to be confirmed.

TSM should be considered business-driven, not technology-driven. Ineffective interaction between IT and the business is one of the key causes of failure in large programs of this nature

- **There has been an impression by some stakeholders that the TSM Program has operated under a "veil of secrecy."** Priority should be given to ensuring communications regarding the program are open and straightforward. This will help set expectations and reduce the possibility for misunderstanding.
- **Unclear and shifting roles and responsibilities have been a chronic problem within the program** (PMO, primary BAs, Secondary BAs) and this has been exacerbated in the current climate. As the executive level gets sorted and the PMO roles change into the future, this also needs to be driven down into the lower levels of the TSM organization.
- **The effectiveness and usage of the PMO:** Adding to the aforementioned climate of secretiveness, creating a barrier between the program office and DoTAX business units. The PMO's attempted focus on "PMO" specific duties (managing scope, schedule, deliverables, issue/risk logs, etc.) was not fully utilized. In addition, not all of the PMO members have a tax business background, but have been asked to be the focal points for configuration decision making. The future role of the PMO needs to be clearly defined and action taken to implement the changes on a priority basis.
- **There is a climate of "rumors" which must be addressed through fact-based analysis.** For example, there is a perception in the organization that

front end "backlogs" are serious and preventing both Collections and Audit from being able to effectively perform their duties. Appropriate resources need to be deployed to analyze the facts behind these rumors, using specific examples and root cause analysis, and determining how to improve into the future. This type of analysis and documentation should not necessarily be undertaken part-time by managers or staff already fully occupied in their roles.

- **OCM efforts are needed with a focus on senior managers and front-line managers** to ensure that they understand their roles (champions, enablers, supporting their staff through transition) and the expectations of the agency for them with respect to TSM. Managers must understand that they are expected to support the transition to the new system, champion it with their staff, identify issues and positively identify solutions to those issues. Managers are part of the solution, not "us" (i.e. the agency) vs "them" (i.e. TSM Program, FAST, and now ETS).
- **AdvanTech remains concerned that the DoTAX goal to be fully self-maintaining at the end of the warranty period is unrealistic.** It is important to note that very few states, if any, that have implemented GenTax have achieved complete self-maintenance. In order to achieve as high a level of self-maintenance as possible, technical knowledge transfer must be monitored closely.

  The recent change in TSM Program management structure may be having some negative impact on the KT process. Some key technical staff are expressing a desire not to work on TSM, and possible "allegiances" within the organization may be undermining the willingness or ability of technical staff to achieve optimal knowledge transfer. This also has the potential to impact data extracts and conversion for R3, though we did not see any evidence that this was occurring. Possible retirements of some DoTAX personnel during or shortly after the implementation program will add complexity to KT planning.

  DoTAX should begin developing a contingency plan for ongoing maintenance and support in the event it is not able to achieve complete self-maintenance capability. This contingency plan should identify the possible split of post-Implementation responsibilities between DoTAX and Fast, and the related budgetary impacts.

System Development and Operations

Operations for R1 and R2 functionality are largely bedded down, with a relatively small number of fixes (SQRs) and change requests still in process. Rollout 3 is scheduled for August 14, 2017, and consists of Corporate Income, Withholding, and Franchise taxes. As noted above, AdvanTech believes that the program is sufficiently ready from a technical, business, and taxpayer perspective to proceed with the cutover.

Users are still challenged with the need to work in two separate systems. This is a natural effect of a phased implementation of the new system, but it does add extra burden on the users. These challenges will be resolved naturally once the implementation of TSM is complete and the legacy systems are retired.

Front End Processing:

There are no major changes to this area since the previous report. The scanning process is working reasonably well, with the backlog under control, though there was a spike in late July with the semi-annual GET filings.

There is still an open question as to whether two scanners are sufficient. Current throughput continues to indicate that the two scanners can handle the estimated volumes, but there is no redundancy in case one scanner goes down or is needed for testing programming changes.

The Captiva data capture software is generally working as planned and continues to "learn" as recognition errors are identified and corrected. Users continue to gain proficiency with the correction process, but would like to see some improvements in the Captiva reports.

Continued emphasis should be given to getting forms fully designed (with input from TSM), reviewed, and approved sufficiently in advance of the scheduled configuration, for both annual changes to forms already in production and new forms to added to production in future rollouts.

Deposit 21 continues to work well for getting checks processed and deposited. It is also interfacing well with GenTax for the R2 taxes. There continues to be challenges with the reconciliation of payments for tax types not yet moved to GenTax. This will continue to be the case until TSM implementation is complete, though the process has improved as staff gains comfort with Deposit 21 and with the development of additional reconciliation reports. TS&P is concerned that the lock box arrangement is the biggest cause for payment delays.

A final decision on what to do with the mail opening equipment has yet been made. DoTAX is continuing to open all incoming mail manually since it would be counterproductive to try to segregate those items that the mail machine can handle. DoTAX and Fast completed a Mailroom Needs Analysis, which is discussed in further detail in Recommendation 3.6 below.

Previous Recommendations:

3.1 **Previously Closed (see Assessment 5)**

3.2 **Previously Closed (see Assessment 5)**

3.3 DoTAX and Fast should work together to resolve the concerns over two vs. three scanners.

A final determination has not yet been made as to whether a third scanner is required. Current throughput continues to indicate that the two scanners can handle the estimated volumes. A draft analysis was prepared by Fast and presented to the PMO for review with Taxpayer Services & Processing (TS&P) and the Executive Steering Committee. Recommendation is still open.

3.4 Data cubes, reports and/or other tools should be developed to aid with the reconciliation of daily deposits.

Reconciliation of returns and payments for taxes migrated to TSM continues to work well. There are still issues with reconciling Deposit 21 with the legacy system for payments on taxes not yet migrated to TSM. There most likely will continue to be issues with reconciling to the legacy system until all taxes are migrated to TSM. We consider this issue closed as it relates to the GenTax implementation. **Closed**

3.5 DoTAX needs to decide which processing functions will be performed in the district offices, then establish the appropriate procedures and provide necessary training.

The district offices have been doing scanning and check processing for several months, and have more recently begun correcting rejected and orphan batches. Additional training was provided, and feedback has been positive. **Closed**

3.6 Complete the analysis of alternatives for resolving the mail opening issues, including review of other possible equipment solutions. As part of the analysis, provide statistics on the various sizes of incoming mail and their respective volumes.

As indicated in the previous assessment, a Mailroom Needs Analysis was completed jointly by DoTAX and Fast. Recommendations in the analysis include getting additional training from the mail machine vendor (Agissar) to help see if the equipment can be effectively incorporated in the overall mail handling process, and procuring some inexpensive rotary slicers to allow more types of envelopes to be mechanically opened.

The analysis did not discuss options for mail tracking, nor did it include surveying tax agencies in other states to see how they perform mail handling. AdvanTech recommends that the analysis be extended to include these elements. This recommendation remains open.

4.1 Fast and ICS should work with DoTAX to develop an end-to-end process flow and reconciliation step diagram for Taxpayer Services and the scanning operations.

These diagrams have not yet been completed, so this recommendation remains open.

4.2 **Previously Closed (see Assessment 5)**

eServices:

The issues with taxpayers having difficulty registering for eServices under the new system have largely been resolved through improvements to the configuration of the online component, and the filing and payment processes for those taxpayers once they were registered has generally worked as planned. There are now over 100,000 GET taxpayers registered under the new eServices, compared to approximately 70,000 under the old system.

Fast has had two different eServices experts spend time on the project to further refine the online process, and the look and feel of the Hawaii Tax Online site. Fast is also preparing a series of short videos that will be available online as part of R3 cutover to assist the taxpayers with registration, filing, payment, and account access questions.

The eServices component will be upgraded to a newer release of GenTax Version 10. There is a risk with rolling out this new version of the core GenTax online functionality in conjunction with R3. The differences are minor and mostly improvements, but change-is-change and some taxpayers may get confused, requiring an even higher level of support. In addition to the normal internal testing process, the Taxpayer Advocate's office reached out to 200 tax practitioners and 100 taxpayers known to be vocal users to request them to review the changes being made, particularly in light of the migration to Version 10.

The decision to use Modernized Electronic Filing (MeF) for Corporate Income Tax has reduced the scope of the R3 online component, which may also help reduce post-cutover support activity. However, with MeF scheduled as a separate mini-rollout in January 2018, care should be given to develop solid plans for managing and executing that effort.

Multiple communications have been sent to taxpayers regarding any new and changed eServices functionality coming with R3 cutover. The new Information Officers are a positive addition to the team, but we are concerned with what seems a lack of "pants-on-fire" so close to rollout.

As discussed in more detail in the User and Production Support section below, the call center staffing has been increased and the automated call system has been refined to aid with the taxpayer support function.

Previous Recommendations:

3.7 Continue the process for analyzing and refining security controls for registering accounts on eServices.

As noted above, the issues with online registration have been resolved through improvements to the configuration of the online component. This recommendation will remain open until the next assessment to see if there have been any similar issues with the new online functionality being implemented in R3.

3.8 Send a follow-up mailing to existing eHawaii.gov accounts as a reminder of the December 31 deadline for moving from eHawaii.gov to eServices.

Multiple emails were sent related to the 12/31/16 cutover for GET taxpayers. DoTAX has also performed additional outreach efforts leading up to R3 cutover, including a web notification to existing eServices users about changes that will occur with R3. **Closed**

3.9 Designate an individual within DoTAX to act as champion for eServices to work with the DoTAX organization and the TSM Program Office to help create an overall vision for eServices.

We believe that Rose Salvascione has assumed the role of eServices champion, but we are not clear whether that is an official designation, or an informal, de facto role based on her other job functions related to supporting online processing. There is also a group of people in the processing unit that have primary responsibility for dealing with eServices usage.

We recommend that DoTAX clarify who has primary responsibility for guiding the continued development of online services and the efforts to push for greater taxpayer utilization of those services.

4.3 Ensure that eServices functionality is delivered earlier for R3 and future rollouts to allow for comprehensive testing in order to minimize problems.

As noted above, Fast has taken several steps to ensure that the online experience is smoother for the taxpayers. Additional demonstration sessions were held with DoTAX to review progress during the R3 development process.

In addition to the normal internal testing process, 200 tax practitioners and 100 taxpayers known to be vocal users were requested to “play” in the new system, using their own data to try to register, file, and pay,. A reasonable percentage

(35% of practitioners, 50% of taxpayers) agreed to participate, but the results will not be fully compiled until after cutover, so the ability to make refinements based on the feedback cannot happen before the new functionality is rolled out to the full taxpayer base.

4.4 **Previously Closed (see Assessment 5)**

4.5 Designate an individual within DoTAX to act as champion for MeF to work with the DoTAX organization and the TSM Program Office to develop an effective plan for implementing MeF for Corporate and Individual Income Taxes, regardless of whether eServices is implemented on an interim basis.

The roles of eServices champion and MeF champion may have been combined under one individual (Rose Salvascione), but as indicated above, it was unclear if this was officially the case.

We recommend that DoTAX clarify who has primary responsibility for guiding the development of the MeF program for Corporate Income Tax, especially since it will be rolled out separately in January 2018.

Additional Recommendations:

6.1 DoTAX should work with Fast prepare a detailed plan and schedule for the MeF implementation, which should be managed in a manner similar to any other rollout.

System Configuration:

R3 configuration is basically completed except for any needed adjustments being identified in the final cycles of testing. No major issues were reported.

DoTAX continues to express concern about the "13th Period" for GET reconciliation returns, particularly regarding the ability to view the 13th period (annual reconciliation return) on the same screen with the regular monthly or quarterly periods. Fast reiterated that it has created an ad hoc query called "Bill Items" under the regular and reconciliation accounts that allows a user to view all periods for both accounts on one screen. This approach is the same as will be used for Withholding in R3. It appears that this may be a communication/training issue, so AdvanTech recommends that the program team provide a demo or some other form of instruction to users on how to view the regular and reconciliation periods together.

Previous Recommendations:

3.10 **Previously Closed (see Assessment 5)**

3.11 DoTAX should work with Fast to determine the best practices solution for the 13th period issue. DoTAX should be willing to evaluate possible changes to policy or procedure. For example, some states with annual reconciliation returns have eliminated those returns by changing the nature of their monthly or quarterly return processes.

As noted in the previous report, DoTAX has decided to utilize the separate account approach. The program team has provided a instruction to users on how to view the regular and reconciliation periods together. **Closed**

5.1 DoTAX should work with Fast to complete the analysis related to merging Sellers Collection into GET, including whether the DoTAX developers could take the lead in the effort. This analysis should be given high priority if there is a desire to try to accomplish the change as part of R3. It may be more effective and more reasonable to plan the change for the beginning of the calendar year to better align with filing cycles, and to allow for sufficient time to plan and execute the change.

An analysis was performed and the decision was made to migrate Sellers Collection into GET as part of R3. **Closed**

Data Conversion:

The R3 data conversion process is in solid shape, with 10 mock conversions having been completed and verified. There are still some open elements of legacy data clean-up, which could result in some post-conversion manual effort.

As noted above, some key technical staff were expressing a desire not to work on TSM, which has the potential to impact data extracts and conversion for R3. However, we did not see any evidence that this was occurring.

Discussions are continuing on the conversion of historical images. The TSM Program Office is analyzing the storage needs and related costs for various levels of historical image conversion. In addition, some of the historical images would need to go through a separate time consuming rendering process to be moved into TSM.

Previous Recommendations:

3.12 In future rollouts, ensure that the business units fully understand the level of data cleansing and the nature of any data re-formatting that will occur as part of the conversion process. Also ensure that the training program includes sufficient focus on how to use converted data in GenTax.

The conversion team prepared more extensive documentation on how data elements are being converted, and the training team provided users with more in-depth information on status and use of converted data as part of Tier 3

training. However, it cannot be fully determined what issues the users may have with the R3 data until cutover is complete.

Access Security:

The access security model has been updated to include new users coming onto GenTax in R3. For a period of time after R2 cutover, there were several help requests regarding access security. Many were related to username and password resets, but others were situations where access rights had changed. The number of requests of this nature have steadily declined as users become more experienced with the system and related security controls, but there is likely to be another spike immediately after R3 cutover.

Previous Recommendations:

3.13 **Previously Closed (see Assessment 5)**

3.14 **Previously Closed (see Assessment 5)**

4.6 DoTAX should appoint a security coordinator to work with Fast's security lead to learn how to maintain all elements of the internal user access security function.

DoTAX assigned a number of personnel to obtain training in the maintenance of the access security model. From this group, a primary and a back-up have been identified to have responsibility for model maintenance long term. This recommendation is being closed, but the knowledge transfer process necessary for these individuals to gain sufficient experience to maintain the model should be monitored as part of the overall KT program. **Closed**

User and Production Support:

User support is the process of handling issues raised by users, which may be things such as training, forgotten user ids and passwords, and security settings, as well as system problems and enhancement requests. Production support is the process of determining that the issue raised or enhancement requested is valid, then logging, tracking, resolving, testing, moving into production, and closing out those system issues and enhancement requests.

The support process for internal users continues to work well. There is a help desk function to provide users a single point of contact for their system help needs, whether TSM or legacy. There is also a trouble ticketing system to capture all user issues, whether they may be system problems, training issues, problems with security settings, or enhancement requests. The ticketing system seems to be generally functioning as planned, but there does not appear to be a method of tracking calls that do not result in trouble tickets, reducing the ability to detecting trends and resultant focus areas.

Approved tickets related to TSM are then moved into the SQR process for tracking and resolution/implementation. The SQR process is working effectively to record and categorize these issues, and then track them through development and testing. The number of open SQRs is remarkably low. There are approximately 30 items that have been moved from SQRs to change requests, and are being monitored accordingly. We have not been able to determine if these change requests require contractual change, or just configuration change (we believe most are the latter). There also may be some confusion related to the classification of items as SQRs, change requests, or pull items.

The program has set up a virtual production support team. Fast has assigned an individual to lead the production support effort, plus another individual to focus on issues with the non-GenTax components. In addition, each development team has a secondary BA whose primary responsibility is production support.

There are ongoing complaints about system usability that are not necessarily tracked through the trouble ticketing and SQR processes. These are items such as “it takes me many more clicks in the new system to perform the same job.” Some of these may just be training issues, others may be situations where it does take longer to do a particular task, but in so doing it has improved other downstream activities.

The call center staffing has been increased and additional training has been provided. The automated call system has been refined to aid with the taxpayer support function. In addition, the numbers of calls from existing online users has reduced considerably while the total number of online users continues to grow (see table below).

Source	Activity	Jan. 20	July 20	% Change
1	HTO Users (Web Logons) on 20th of Month	69,241	102,855	48.5%
2	G-45,RV-2,TA-1 Returns through 20th of Month	60,877	73,110	20.1%
2	G-45,RV-2, TA-1 **Timely** Returns through 20th of Month	50,273	65,160	29.6%
2	New HTO Users signed up between 16th through 20th.	9,344	1,583	-83.1%
3	Incoming IVR calls 17th through 20th.	34,526	14,857	-57.0%
3	Unique incoming IVR calls 17th through 20th	18,770	9,709	-48.3%
4	Clicks and/or screen recalculations from 18th through 20th. (Snapshot records).	3,868,708	2,128,333	-45.0%

1 Executive Activity Report generated on 20th
2 Eservices Request Summary cube
3 Call Summary Report cube
4 Core Response screen in Systems Manager

However, there is still a risk that the combination of changed and new functionality (including the V10 upgrade discussed above), along with the number of new users expected as part of R3, may generate more activity than the call center can handle. DoTAX needs to continue evaluating other options for handling the total call volume, including using operational staff to man phones during peak calling periods.

Previous Recommendations:

3.15 **Previously Closed (see Assessment 5)**

3.16 Consider releasing outgoing correspondence, particularly the SOFTs, in a phased manner to better control call volumes.

DoTAX and Fast are planning to use a phased approach for issuing bulk documents. This recommendation will remain open until after R3 has been cutover and the first set of SOFTs that include R3 taxes have been issued.

3.17 Adjust the configuration in the IVR system to enable the planned level of callers on hold, and analyze whether there needs to be an increase in call center staffing, either temporarily or permanently.

As noted above, the call center staffing has been increased and the automated call system has been refined to provide more selective routing to aid with the taxpayer support function, but there is still a risk that the combination of changed and new functionality, along with the number of new users expected as part of R3, may generate more activity than the call center can handle.

There is also a risk related to rolling out the newest version (V10) of the core GenTax online functionality in conjunction with R3. The differences are minor and mostly improvements, but change-is-change and some taxpayers may get confused, requiring an even higher level of support.

Discussions are being held with Fast about the potential benefits and timing of a broader re-programming of the system as part of R4 to deal with the significant jump in taxpayers using the GenTax functionality when Individual Income Tax is brought online.

DoTAX is also investigating options to expand call center capacity during peak calling periods through outsourcing, or using other DoTAX staff, temps and/or interns. A purchase requisition has been prepared for additional IVR licenses to allow for the increased usage.

3.18 The call center should provide feedback to the TSM support function regarding the types and volumes of help requests received.

The call center is providing more feedback with an upgraded set of wrap-up codes to provide more meaningful data on call natures. We continue to recommend that DoTAX and the TSM production support team consider developing a "tick" sheet tied to the new wrap-up codes so call center personnel can just make a check mark next to the type of issue as they handle each call.

3.19 All SQRs should be given the appropriate priority designation, even if they are being delayed. This will ensure that the proper level of attention is still given to high priority items.

SQR prioritization appears to be working reasonably well for the small number of outstanding items. However, this recommendation will remain open until the next assessment to determine if there are any issues with the process when SQR volumes increase after R3 cutover.

3.20 **Previously Closed (see Assessment 5)**

3.21 **Previously Closed (see Assessment 5)**

3.22 DoTAX should consider doing an ongoing user readiness survey. This process entails meeting with business unit managers periodically (typically monthly) to ask a set of questions regarding each of their unit's level of readiness based on where the program is at that given point in time. AdvanTech has provided an example of this type of survey utilized on another GenTax implementation. It is too late to implement for R2, but should be considered for future rollouts.

During R3, business unit managers were engaged more regularly on production support and requirements definition activities, including approval of business requirements/configuration decisions. However, we still do not see any specific process, other than training satisfaction surveys, for ascertaining user progress on gaining understanding and improving productivity with system elements currently in production, nor with the users' readiness for R3 and future cutovers. We continue to recommend that a process be formalized as part of overall organizational change management.

4.7 Fast and DoTAX need to make sure cutover plans, particularly those related to eServices, take into consideration the impact on call center volumes.

The cutover plan for R3 has been developed, and call center operations have undergone some refinement based on lessons learned from R2. This recommendation will remain open until the next assessment to determine if call center planning for R3 cutover was effective.

4.8 DoTAX should consider using interns to help man special eServices hotlines and help walk-in customers get registered for eServices, especially during peak periods such as the annual filing deadline.

As indicated in 3.17 above, DoTAX continues to analyze call center operations, including the configuration of the IVR system and call flows, to determine what additional adjustments (system, staffing and training) may be required.

4.9 The production support team should consider additional methods for communicating the status of SQRs, such as periodic bulletins informing users of items put into production, combined, deferred, etc.

The production support team continues to conduct regular meetings with the business units to discuss SQR status, though at a reduced level with the corresponding reduction in open items. We assume these meetings will scale back up with the increase in SQR activity after R3 cutover.

We still feel it would be beneficial for the team to push out information to all users, particularly when fixes are put into production.

4.10 Fast and DoTAX should work together to reach out to some users to better determine the nature of usability issues discussed above, and find ways to resolve them (user bulletins, additional training, etc.).

Some of this activity has occurred, particularly with the front-end processing area. However, we still believe this process needs to occur in other areas, particularly where users are having more difficulty coming up the learning curve (e.g. Collections). We recommend that this activity be incorporated as part of R3 deskside support.

5.2 The production support team should review the process for classifying an SQR as rejected to ensure that it is using the proper terminology in a given case. For SQRs that are rejected, the team should provide a clear indication of the reason(s) for rejection and communicate those to the originator of the issue.

It appears that the support team is no longer classifying items as rejected, but is working with originators to make adjustments to the SQR to ensure they clearly indicate the nature of the issue. Several SQRs have also been now categorized as change requests, reflecting that the item is a desired change, not a system fix.

Infrastructure:

The hardware and network components of TSM installed at the permanent data center appear to be performing as planned. The downtime issues with the Dell switch equipment have been resolved through a combination of hardware replacement and firmware upgrades.

There is no facility in place for doing a completely seamless failover to another location in the event of a full shutdown at the current production site. The plan to establish the

back-up site at the University of Hawaii data center is moving forward, but there are still a few issues related to obtaining certification of the site under the security guidelines of IRS Publication 75. In the interim, the plan is to utilize hardware at the DoTAX data center by reloading backed up copies of the software and database.

Previous Recommendations:

3.23 DoTAX and Fast should work together to prepare an overall business interruption and disaster recovery plan, to include the installation of back-up infrastructure at a separate disaster recovery site to allow for failover capability. This back-up infrastructure could also potentially be used to handle certain production functions, such as the reporting database, to enhance performance of the main production environment.

The DoTAX business interruption and disaster recovery plans remain a work-in-progress. DoTAX is using its existing hardware at DoTAX as a manual failover back-up and recovery site, and is in the process of establishing the permanent disaster recovery site at the University of Hawaii data center after R3.

3.24 If not already done, Fast should clearly define the monitoring capabilities, both automated and manual, for all components of the system, including those components provided by subcontractors.

The monitoring capabilities for the GenTax servers have been defined and implemented. A dashboard is being implemented to monitor all infrastructure components. Fast has stated that all available monitoring capabilities have been implemented. No further issues with the monitoring were raised by DoTAX as part of this assessment. **Closed**

5.3 Fast should finalize a plan and get commitment from Dell for providing a resolution to the problem with the network switching equipment. If Dell does not provide a solid fix or replacement, then Fast should consider replacing the Dell equipment with another alternative.

The issues of network switching reliability have been resolved through the replacement of some hardware components and the upgrade of firmware. **Closed**

Project Execution

The program team is now almost solely focused on preparation for Rollout 3 cutover. Configuration and testing efforts are winding down, with the focus mainly on making final fixes to issues found in testing. Pre-cutover processes have begun in terms of shutting off certain legacy functions for the R3 taxes, and any remaining data cleansing issues are either being completed or plans are being made for post-cutover resolution.

Program Management:

The change in the management structure for the TSM Program, in particular moving the overall program management responsibility and the TSM PMO staff from DoTAX to the State's Enterprise Technology Services Office (ETS), is having a significant effect on program operations. As discussed above, there is still a fair amount of fear, uncertainty and doubt within TSM and DoTAX staff about the reasons for the change and what the ongoing impacts will be.

The most important issues to deal with related to the change are:

- Clearly defining the governance structure and lines of communication. As part of the governance structure, we recommend the best practices approach that calls for establishment of an Executive Steering Committee with key representatives from DoTAX, ETS, and TSM.
- Clearly defining any changes to individual roles and responsibilities, particularly the members of the PMO.
- Maintaining the principle that the program is business-driven, and that there must be effective collaboration between the program office and DoTAX business units, and between ETS and DoTAX management.
- Ensuring that communications with all stakeholders are open and transparent, and that there are no artificial bottlenecks to effective communications.

There continues to be some siloing of the work teams. This may have resulted in configuration decisions being made in one team without input from other teams whose functions may be impacted. While this issue is now more of a moot point for R3 system definition, it is important to work on steps to reduce siloing as R3 production support and R4 planning activities get underway.

Meetings of the TSM Stakeholders group have reduced in frequency as R3 system definition activities were completed. The change in management structure may have also caused a disruption in the group's meeting schedule. We believe these meetings to be very valuable for the program, if focused more on issues and key decisions, rather than status updates, and should continue to be held on a regular basis.

Previous Recommendations:

3.25 We suggest that at a minimum the DoTAX BAs hold periodic joint meetings to discuss cross-team activities and issues.

Fast team leads are meeting weekly to discuss cross-team questions and issues. The primary DoTAX BAs meet informally on a fairly regular basis.

AdvanTech continues to recommend that the Departmental BAs also schedule a regular meeting.

3.26 DoTAX should consider refining the decision making process to clearly indicate what decisions program team members are empowered to make, and which must be passed to the business units.

At the time of the previous IV&V assessment, the PMO had recently prepared a Project Decision and Escalation Process document, which was approved by the TSM Stakeholders group. With the new TSM management structure, this document and other related program governance procedures should be reviewed and revised accordingly.

3.27 **Previously Closed (see Assessment 5)**

3.28 **Previously Closed (see Assessment 5)**

5.4 The PMO should reiterate to the departmental BAs that part of their role is to act as liaisons with their respective business units to communicate to and from the units and the TSM Program office.

While we believe that the Departmental BAs have a general understanding that the liaison function is part of their role, we are concerned that they do not feel empowered in that regard. We also noticed more of a reticence to speak freely about issues. This may be related to some of the sense of uncertainty generated by the change in management structure and program ownership.

Additional Recommendations:

6.2 An Executive Steering Committee should be formed with key representatives from DoTAX, ETS, and TSM.

Testing:

System testing has been completed with the exception of 71 scenarios (out of a total of 10,338 scenarios) still being worked. All four planned cycles of end-to-end testing have been completed.

While the R3 testing program was generally executed as planned, DoTAX has continued to express concerns with the process. They still feel that it is somewhat rushed, both for scenario writing and execution, and that there is significant pressure to push through the passing of scenarios.

On the other hand, the TSM testing team is concerned that DoTAX did not provide a sufficient number of testers on a timely basis that have a strong working knowledge of

Hawaii tax policies and operations, and have familiarity with the elements of TSM already deployed.

Resource balancing is always a challenge in a program of this magnitude, as personnel are needing to do their normal workloads while dealing with learning the new system, working in two separate systems, and being asked to participate in program activities (definition, testing, training) to varying degrees. However, adequate testing is critical to the success of the new system, and people participating in testing get additional awareness of the system, making it easier for them to work with it when it is moved into production.

DoTAX feels that the testing process is made more difficult because the configuration is constantly changing at the same time scenarios are being developed and/or executed, leading to the need to often re-write scenarios. This issue is a natural, but challenging offshoot of Fast's iterative development methodology, but combined with the resource issues, it has placed more burden on the BAs to both write scenarios and execute those scenarios, which may place some limitations on the overall effectiveness of the testing process.

Previous Recommendations:

3.29 The Fast and DoTAX testing leads should sit down with the PMO and BAs to discuss the definition, purpose, composition, and process of the various testing pieces. The goal of this session should be to obtain DoTAX agreement that the testing program is comprehensive enough to meet DoTAX needs.

As noted above, the DoTAX Sr. Quality Assurance Analyst reviewed this information with the PMO. The Fast testing lead reviewed the information with the BAs, SMEs, and testers during tester training. The process of having users develop test scenarios also helps ensure that the testing program is comprehensive.

This recommendation will remain open until the next assessment, which will focus on readiness for R3 cutover, to determine if there are any remaining concerns about the testing process.

3.30 DoTAX should ensure that as many R2 testers as possible be engaged in R3 scenario writing and testing.

Testing is largely completed, but there were significant challenges in getting resources from the business units to provide a sufficient number of testers on a timely basis that have a strong working knowledge of Hawaii tax policies and operations, and have familiarity with the elements of TSM already deployed. Based on these concerns, there is a risk that some issues with system design or performance may not have been surfaced during the testing process.

Even though it is no longer possible to adjust the testing process and resourcing for R3, this recommendation will remain open to determine if there are any remaining concerns about the testing process and to emphasize the need the need for the business units to provide a sufficient number of qualified testers for future rollouts.

Training:

Tier 1 (generic computer based) and Tier 2 (general system classroom) training has been completed. Tier 3 (job specific classroom) training was 64% complete as of July 31, and is working within the plan to provide this training as close to cutover as possible to keep it fresh in users' minds.

As noted in previous reporst, DoTAX expressed concerns that the R2 training did not go into enough depth and/or breadth on some topics, and that the pace of the classroom training was too fast to enable users to fully absorb the information. Concerns were also expressed that there was not enough cross functional training. The training team to several steps to address these concerns in the R3 training program, and most of the feedback has been positive. These steps included creating additional handouts, and posting training scenarios, curriculum documents, and powerpoint presentations into the share drive.

As with any complex system, training can only go so far to making users productive in the system. It will still take hands-on time working within the system to become fully comfortable.

The trainers did experience some negative comments about TSM from a small number of users. These included things such as "I don't need to learn this; TSM is going to be cancelled" or "This is not how we do things; TSM is no good." This further points out the need for managers to be proactive champions.

Previous Recommendations:

3.31 **Previously Closed (see Assessment 5)**

3.32 DoTAX and Fast should work together to ensure that DoTAX expert users are fully aware and committed to their responsibility to provide classroom training, and that the expert user training program includes instruction on how to provide this training.

Fast's training program is typically based largely on a train-the-trainer approach, providing an Expert User Academy to a select group of users who are also expected to provide training to other users. For TSM, DoTAX decided that the expert users would not be required to perform classroom training, but could do

so on a voluntary basis. Only a small percentage of the expert users opted to participate, so Fast had to perform a higher level of direct training than planned. This reduced participation by DoTAX should be taken into consideration in planning the training for future rollouts. In addition, the expert user model does not seem to be taking hold as "Experts" do not feel like they are experts.

This recommendation will remain open until the next assessment to determine if there are any remaining concerns about the training process.

4.10 **Previously Closed (see Assessment 5)**

4.11 DoTAX should appoint training coordinator to work hand-in-hand with Fast's training lead.

Joshua Lee has acted as the DoTAX training coordinator as one element of his PMO role. DoTAX has not yet created a full-time trainer position as recommended by Fast. DoTAX has identified two individuals to focus on training. There is a significant amount of knowledge transfer necessary for these individuals to gain sufficient experience to maintain the coordinate ongoing training and maintain the online help, so their progress should be monitored as part of the overall KT program.

Technical Knowledge Transfer:

DoTAX has a very aggressive goal to be fully self-maintaining at the end of the warranty period. There is significant training that must occur for the DoTAX technical IT staff to be able to support the TSM system going forward. This includes training (both classroom and on-the-job) for system maintenance, production support, and operations processes for GenTax and the other hardware, software, database, and infrastructure related components of the TSM Program.

AdvanTech remains concerned that this goal is unrealistic. Very few states, if any, that have implemented GenTax have achieved complete self-maintenance.

The knowledge transfer plan includes a progress tracking model to assist with determining how far each technical person has progressed in gaining the necessary knowledge to perform their specific maintenance responsibilities post-implementation. Fast and DoTAX meet regularly to discuss KT progress. DoTAX development staff that have been assigned to TSM have made impressive progress in gaining ability to perform GenTax production support, taking on a solid share of the fixes and enhancements identified in SQRs.

Training has been provided on some of the non-GenTax components of the overall TSM system. including the storage area network (SAN), scanning and data capture

hardware and software. And IVR. Some of this training is being provided directly by the subcontractors to DoTAX staff.

As noted above, some key technical staff were expressing a desire not to work on TSM. We have heard that most of this issue has been resolved, but if some of the staff did leave the program, it would further jeopardize DoTAX' efforts to attain self-maintenance. If anything, we feel more technical resources need to be committed to TSM to have any chance of reaching that goal.

Previous Recommendations:

3.33 Fast should work with DoTAX to refine the knowledge transfer plan to fully incorporate non-GenTax components and DBA training.

Some technical training has been provided for the non-GenTax pieces, and DoTAX technical staff are gaining experience by working system issues related to those components. Their progress should be monitored as part of the overall KT plan, and the plan should give equal importance to these components as to the GenTax system.

4.12 Fast should provide a systems overview document and system operations manuals/documentation.

These documents have not yet been provided by Fast. Fast and DoTAX need to discuss further to reach agreement on the nature of these documents. In the meantime, Fast has prepared a set of functional guides for each component of GenTax, which will be living documents that are updated to reflect new or changed configuration with each rollout.

Documentation:

DoTAX and Fast continue to work to resolve differences in expectations over documentation. A refined process for the development of documentation was instituted early in the R3 development cycle. The changes included defining new formats for recording business requirements, system configuration, and business process changes, with the DoTAX PMO assuming a larger role in coordinating the preparation of that documentation. However, there was some concern expressed that the documentation of configuration decision is not always handled consistently (e.g. some are only documented in meeting minutes).

DoTAX continues toexpress a desire for a system overview document showing how all the components fit together, and system operations documentation.

One of the main components of documentation is the online help function within GenTax. While this help function is fairly robust and is context sensitive, DoTAX feels in

some cases it does not provide enough depth related to the specific topic, nor does it provide an overlay of how the particular system action being described fits into the broader picture of the business function that that action falls within. On the other hand, both DoTAX and Fast agree that the online help function is difficult to maintain and keep current.

Previous Recommendations:

3.34 **Previously Closed (see Assessment 5)**

3.35 Fast should continue to work with DoTAX to refine the composition of the online help. They should consider including links to such elements as functional guides and process flow documents to enable users to access the broader context of each GenTax function.

The online help now includes over 500 site specific elements, but linking to process flows and functional guides has not yet been completed. There is a process for continuing to upgrade and update the function, and tie it to specific DoTAX business processes where feasible. However, adding more site specific content will make it even more difficult to maintain.

DoTAX has identified two individuals to work with the Fast training team to learmn the process for maintaining online help.

4.13 Fast team leads and DoTAX PMO members should ensure that all configuration decisions are being fully documented with the new process.

Virtually all of the configuration decisions for R3 have been completed, and most of those have been documented using the new process put into effect for R3, though it appears some of those decisions were only documented in meeting minutes. At the outset of R4, the PMO should reiterate to the development work teams the need for consistency in documentation. The Project Decision and Escalation Process document that was prepared at the time of the last assessment should be updated to incorporate any changes related to the new management structure, and those changes should be clearly communicated to all affected parties.

Business Process Reengineering (BPR) and Organizational Change Management (OCM):

Both DoTAX and Fast agree that the TSM Program must have a plan and process for looking for opportunities to make business process changes proactively. However, there have been differing expectations between the parties regarding the methodology and responsibility for business process reengineering. DoTAX feels Fast should take the lead and use their experience from other GenTax implementations to guide DoTAX to best practices. Fast feels that DoTAX needs to be more proactive in identifying areas

where they believe they would benefit from change, and that the DoTAX business units continue to be somewhat more inclined to retaining current practices ("we have always done it that way").

As noted in the previous assessment, some documentation of business process changes that occurred with R2 are embedded in training materials and the online help function. This is also the case for some of the R3 changes. However, we have not yet seen that detailed business process manuals have been fully developed, either by updating existing manuals within DoTAX business units for changes occurring due to TSM, nor by creating TSM specific manuals.

DoTAX is continuing with its program of communications, both internally and externally. The internal communications have included interactive briefings with managers from all areas, including the neighboring islands, and "Town Hall" sessions to help set expectations and answer questions of all staff. The external communications include news releases, multiple mailings, website announcements (including FAQs), brochures for both tax preparers and legislators, and a web notification to existing eServices users about changes that will occur with R3. Recent engagement in TSM by both the DoTAX and ETS public information officers will further enhance these efforts.

Overall buy-in within DoTAX for the TSM Program has continued to increase. Some business unit leaders and mid-level managers have taken a greater level of ownership of the program, and have done a better job of acting as champions of the effort by conveying their full support to their staff. However, this is not the case across the board. Some middle managers do not seem fully bought in, and are not using the system, not acting as champions, and are seemingly disconnected from the process.

Previous Recommendations:

3.36 DoTAX and Fast management teams should meet to resolve the differences in expectations related to responsibilities for business process change prior to commencement of full R3 implementation activities.

The parties are working on agreement on responsibilities for BPR and OCM activities. As noted above, Fast has assigned two qualified individuals to work part time with the TSM Program Office and DoTAX to develop plans for both these areas. They have performed surveys and developed workshops to engage DoTAX management in the BPR and OCM process. However, the process has just gotten underway on a meaningful basis, so it will take time to effect any key changes.

3.37 DoTAX should work with Fast to finalize the approach for performing the organizational readiness assessment. The results of that assessment should be used to prepare an organizational change management plan and program.

The OCM planning process did not specifically include a process for confirming user readiness for R3. We recommend that the OCM plan incorporate an approach for confirming that readiness in future rollouts. AdvanTech provided DoTAX with a sample template for performing ongoing user readiness assessments.

3.38 Business unit leaders and mid-level managers should be strongly encouraged to become champions of the TSM Program, recognizing that it is the primary tool for the future of DoTAX, and that they are the principal drivers of acceptance of the system by their users.

This area seems to have taken a backward step since the last assessment. Middle management does not seem fully bought in, with some managers not using the system, not acting as champions, and seemingly disconnected from the process. Some of these managers seem to be waiting for things to happen for them (or maybe to them), rather than being proactive drivers. We hope that engaging them in the BPR recently initiated BPR program will stimulate their engagement.