INFORMATION NOTE

Application Software Solutions Being Used to Support the Technical Architecture of Selected Revenue Bodies

Prepared by
Forum on Tax Administration
Taxpayer Services Sub-group

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ABOUT THIS DOCUMENT

Purpose

This note summarises information provided by revenue bodies in seven OECD member
countries regarding application software solutions, planned or implemented, to support
revenue administration. This information is intended to complement the guidance in the
note ‘Achieving Success with Electronic Services – The Importance of Having a Sound

Background

Since its establishment in July 2002, the Forum on Tax Administration (FTA), a subsidiary
body of the OECD’s Committee on Fiscal Affairs (CFA), has operated with the broadly stated
mandate ………. to develop effective responses to current administrative issues in a
collaborative way, and engage in exploratory dialogue on the strategic issues that may
emerge in the medium to long term. To carry out this mandate, the Forum’s work is directly
supported by two specialist Sub-groups—Compliance and Taxpayer Services (previously e-
services)—that each carry out a program of work agreed by member countries.

The Taxpayer Services Sub-group exists to provide a forum for members to share experiences
and knowledge of approaches to taxpayer service delivery, in particular through the use of
modern technology. In this context, it is expected to: 1) periodically monitor and report on
trends in taxpayer service delivery, with a particular focus on the development of
electronic/online services; 2) examine ways to promote the uptake and use of electronic
services by revenue bodies; 3) examine options for cross-border administrative simplification
and consistency; and 4) assist, as appropriate, other groups of the CFA. This document is a
by-product of the Sub-group’s work.

Caveat

National revenue bodies face a varied environment within which to administer their taxation
system. Jurisdictions differ in respect of their policy and legislative environment and their
administrative practices and culture. As such, a standard approach to tax administration may
be neither practical nor desirable in a particular instance.

The documents forming the OECD tax guidance series need to be interpreted with this in
mind. Care should always be taken when considering a country’s practices to fully appreciate
the complex factors that have shaped a particular approach.

Inquiries and further information

Inquiries concerning any matters raised in this information note should be directed to
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+33 1 4524 9463 or e-mail (richard.highfield@oecd.org).
SUMMARY

This note summarises information provided by revenue bodies in seven OECD member countries (i.e., Australia, Canada, New Zealand, Norway, The Netherlands, UK and US) to a 2005 survey regarding application software solutions, both custom-built and commercial off-the-shelf (COTS), planned or being implemented to support revenue administration.

The aim of this work was to provide an inventory of solutions being adopted by a select number of national revenue bodies to support the technical architecture of revenue bodies’ IT systems and to identify areas of commonality in approach, thus facilitating cross-country exchanges of experiences to assist future decision making in this area. The information in this note is intended to supplement the guidance contained in the note issued in April 2005 titled ‘Achieving Success with Electronic Services – The Importance of Having a Sound Business Architecture’.

The survey results clearly indicate that there is a diverse range of application software solutions planned or in the process of being implemented while, in relation to some capabilities (such as reporting, data services and workforce management), there is some commonality in the solutions in use or being deployed. This note does not attempt to draw conclusions or define “best practice” regarding custom-build vs. COTS approaches. Nor does it seek to recommend particular commercially-available software or service providers.

Further updates to reflect new developments, or to include input from additional member countries, will be considered at future meetings of the FTA Taxpayer Services Sub-group.
1. At the September 2004 meeting of the Forum on Tax Administration’s (FTA) Taxpayer Services Sub-Group in The Hague, Australia agreed to undertake a project to gather and share information across agencies about systems, software and processes being redeveloped, replaced, or upgraded. This was seen as being a useful way for the group to understand the nature and extent of change/redevelopment processes planned/underway and the solutions being adopted to provide an initial reference point for sharing lessons, approaches, designs, architectures and potentially even software.

2. The original intention was to involve all member countries in this work. However, due to the complexity associated with the various components of the architecture and the range of software options, it was decided to undertake an initial survey with a limited group of countries. Countries that participated in the initial survey were Australia, Canada, the United Kingdom (UK) and the United States of America (US).

3. The inventory from the initial survey was presented and discussed at the FTA Taxpayer Services Sub-group in September 2005 and it was agreed that the value of this information would be enhanced if a larger number of countries were represented. In addition, it was agreed that it would also be useful for all participating countries to share information in relation to their use of ‘System Integrators’.

4. Following the meeting, the survey information was distributed to five further countries – Denmark, Mexico, The Netherlands, New Zealand and Norway. Feedback received from these additional countries has been incorporated into this report. Denmark advised that they are in the midst of a tender process to modernise their systems and platforms so were not in a position to contribute at this stage.

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1 System Integrators are external enterprises bringing together various technology components (customised to the agency’s needs) to deliver an integrated solution to the agency. System Integrators may or may not own some or all of the technology being delivered.
SURVEY APPROACH

5. In order to be able to sensibly bring together information on the change work currently underway for each country and the technical solutions being used to deliver change, it was necessary to start with a common framework.

6. As Australia was coordinating this activity, it was convenient to adopt the Australian Taxation Office’s (ATO) Capability Model (see Figure 1 below). This capability model was developed as an early step within the ATO’s Change Program and is described in detail in the following section.

7. Each country in the survey group was asked to overlay their proposed solutions for any planned change initiatives against this capability model and to provide details of any Systems Integrators they had engaged to assist with their implementations.

Figure 1: ATO Capability Model

8. This model provides the framework of capabilities that form the overall solution for the ATO’s Change Program. Within the ATO, a capability is a collection of people, process and technology elements of a solution that deliver a business outcome.

9. At the highest level, there are four core capabilities that deliver outcomes to clients:
   - Channel Delivery;
   - Client Relationship Management;
   - Revenue Management; and
   - Case & Work Management.

NB: Capabilities and functions shown with dashed borders and italic descriptions are not currently within the focus of the ATO's Change Program.
10. In addition, there are four supporting capabilities:

- Outcome Improvement;
- Plan & Manage Enterprise;
- Develop New Products; and
- Services and Enablers.

11. Within a number of the capabilities, there are functions that contribute to the overall delivery of the business outcomes. For example, the Channel Delivery capability encompasses delivery of online, inbound, outbound, content management and document management functions.

12. Further information on each capability and related function from an ATO perspective is set out in Annex 1.
SURVEY RESPONSES

Use of System Integrators

13. A number of countries are using external enterprises (Systems Integrators) to assist in development and/or delivery of integrated solutions. They are:

<table>
<thead>
<tr>
<th>Australia</th>
<th>Accenture</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>CapGemini UK</td>
</tr>
<tr>
<td>US</td>
<td>Currently:</td>
</tr>
<tr>
<td></td>
<td>- CSC/PRIME (main integrator to-date)</td>
</tr>
<tr>
<td></td>
<td>- Unisys (for integration support of Filing &amp; Payment Compliance system)</td>
</tr>
<tr>
<td>Previously:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Accenture (public portal)</td>
</tr>
<tr>
<td></td>
<td>- SRA (to support the contact centre)</td>
</tr>
<tr>
<td></td>
<td>- Lockheed Martin and Northup Grumann (for Integrated Submission &amp; Remittance Processing (ISRP) and Service Centre Recognition/Image Processing System (SCRIPS))</td>
</tr>
<tr>
<td>Netherlands</td>
<td>IBM (work is closely linked to the use of the IBM E-tax framework)</td>
</tr>
</tbody>
</table>

Software Solutions by Capability

14. The following pages provide details of survey responses under the eight capabilities as shown in the ATO Capability Model. Responses in relation to the ‘Outcome Improvement’ and ‘Enablers’ capabilities are shown at the functional level due to the somewhat independent nature of their embedded functions. The ‘Develop New Products & Services’ capability has not been addressed in the results as the majority of countries did not include it in their survey responses. Areas where common software solutions are being used are highlighted in bold text. Custom-built software solutions are shown in italics.
**Channel Delivery**

**Australia**
- Presentation layer - Siebel to .Net integration (from Singapore)
- Custom - Portals/Australian Business Register
- Dialogue
- IBM Content Manager
- IBM Document Manager

**UK**
- Presentation layer – J2EE (WebLogic) and .Net
- Custom – some outbound
- Portal – WebLogic JSP & .Net
- Documentum
- Kana
- KDE
- PegaRULES
- Stellant

**New Zealand**
- Presentation Layer – Java, JSP e-Services
- Vignette
- Custom apps (ir-File, www-file, e-file)
- Rightfax, Exigen, S.E.E mail, Periphonics,
- Expression, Autograph Suite, E-xchange
- Lotus Content & Document Mgr
- IBM Content Manager/Content Manager OnDemand
- IBM Call Management System
- Siebel
- Voice Point
- IBM Workspace Manager
- Apache
- SeeBeyond (B2B, EAI layer)

**Canada**
- Presentation layer – custom developed/SAP Attachmate
- Custom - CRA portal, some outbound
- SAP Enterprise Portal 6
- Documerge
- Elixir
- Gov't of Canada Records, Documentation & Information Management (RDIMS)
- Gov't of Canada Interwoven
- Opti-Q
- Superion

**USA**
- Presentation layer - Java, JSP
- WebSphere Application Server, .Net, PeopleSoft PRM
- C# Applications
- Custom (modernised e-File)
- Documentum
- Java
- PeopleSoft
- SharePoint
- Vignette

**Norway**
- Presentation layer – Portals
- Portals – Altinn (.Net), skatteetenn.no (EpiServer)
- Scanning, OCR, electronic information
- COBOL/CICS/DB2
- ELARK (Ephorte)
- Doculive

**Netherlands**
- Kana
- WebSphere Suite
- Vignette
- Custom applications
CLIENT RELATIONSHIP MANAGEMENT

Australia
- GENESYS Call Centre Support
- Siebel CRM

Canada
- Custom (CRM overall)
- GENESYS/Rockwell Call Centre Support

UK
- GENESYS Call Centre Support
- PegaRULES (replacing PegaWORKS)
- Various solutions for outbound dialling, etc

USA
- PeopleSoft PRM (for e-services)

New Zealand
- GENESYS Voice Portal (current)
- IBM Call Path
- IBM Call Management System
- Siebel
- IVR - Periphonics
- Custom (client registration)

Norway
- CRM included in tax management systems – no specific product
- Service & Information centres (SIS) – telephone support

Netherlands
- GENESYS
- Custom applications
REVENUE MANAGEMENT

Australia
- Tax Administration System (TAS) – from Accenture
- SAP (Revenue Accounting)
- Siebel Case Management (to support debt & non-lodgment cases)

UK
- Custom apps – for each tax class
- Debt & Lodgment – under development
- SAP (Trust & Resource accounting)

New Zealand
- SAP (Revenue Accounting)
- Custom (Revenue Management overall)
- Siebel

Canada
- Custom (Revenue Mgt overall)
- SAP (Revenue Accounting)

USA
- Custom (mgt of taxpayer accounts)
- SAP (Revenue Accounting)

Norway
- Agresso (Revenue Accounting)
- Oracle eBS for VAT management & collection
- Oracle (PL/SQL) – tax assessment applications
- PRO-IV – tax assessment application
- COBOL/CICS/DB2

Netherlands
- BLAZE (case selection)
- Millenium (Dunn & Bradstreet) - General Ledger
- Common systems for Customs from the European Community
- Custom applications
- Cordaptix (SPL World Group) – in 2007 – for collection & disbursement
CASE AND WORK MANAGEMENT

**Australia**
- **Siebel** Case Management

**UK**
- PegaRULES – tactically implemented

**New Zealand**
- **Custom applications (current)**
- **Siebel** Case Management (under construction)
- SeeBeyond (EAI)

**Canada**
- AION 9.5 (pilot)
- BPM & BRE tools – under construction

**USA**
- Custom applications (multiple)

**Norway**
- Ephorte – electronic archive/workflow (pilot)
- Doculive – central archive system (to be replaced)
- Forum/Sak (to be replaced)

**Netherlands**
- Cordaptix - 2007 (see Revenue Management)
- Custom applications
**Outcome Improvement – Analytics**

<table>
<thead>
<tr>
<th>Country</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>SAS Enterprise Miner</td>
</tr>
<tr>
<td>Canada</td>
<td>CART (from Salford Systems)</td>
</tr>
<tr>
<td></td>
<td>Clementine Data Mining Workbench (from SPSS)</td>
</tr>
<tr>
<td></td>
<td>Predict (from Neural Ware)</td>
</tr>
<tr>
<td></td>
<td>SAS (data preparation)</td>
</tr>
<tr>
<td>UK</td>
<td>SAS</td>
</tr>
<tr>
<td>USA</td>
<td>Fair Isaac</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Hyperion</td>
</tr>
<tr>
<td>Norway</td>
<td>Oracle Discoverer (reporting)</td>
</tr>
<tr>
<td></td>
<td>SBSS - statistics</td>
</tr>
<tr>
<td>Netherlands</td>
<td>SAS</td>
</tr>
</tbody>
</table>
OUTCOME IMPROVEMENT – INFORMATION MANAGEMENT POLICY & ARCHITECTURE

Australia
- Not specified

Canada
- Enterprise Data Model – under development

UK
- Not specified

USA
- Metis
- ProSight
- Rational Suite

New Zealand
- Not specified

Norway
- Enterprise Data Model – under development

Netherlands
- Under construction
OUTCOME IMPROVEMENT - REPORTING

Australia
- COGNOS
- Crystal Reports

Canada
- COGNOS ReportNet
- COGNOS Series 7

UK
- Business Objects
- Crystal Reports

USA
- Business Objects
- Crystal Reports
- SAS

New Zealand
- SAS
- Brio

Norway
- Oracle Discoverer
- Reporting systems also built into parts of various tax management systems

Netherlands
- Business Objects
- COGNOS
- SAS
OUTCOME IMPROVEMENT – DATA MATCHING

Australia
- Products under evaluation
- (includes SSA-Name)

Canada
- SSA-Name3

UK
- Avellino
- Informatica

USA
- Custom applications (various)
- SAS

New Zealand
- SAS

Norway
- ACL (Audit Command Language)
- ILOOK

Netherlands
- (Human Inference’s) Intelligent Retrieval
- SAS
OUTCOME IMPROVEMENT – DATA SERVICES

Australia
- DB2
- SQL Server

Canada
- Ascential Data Stage

UK
- Not specified

USA
- DB2
- Oracle
- SQL Server

New Zealand
- Oracle
- Progress
- DMS2

Norway
- DB2
- Oracle
- SQL Server
- Sybase (to be replaced)

Netherlands
- DB2
- IMS
- Oracle
- SQL Server
OUTCOME IMPROVEMENT – DATA WAREHOUSE MANAGEMENT

- **Australia**
  - Teradata

- **Canada**
  - DB2 on z/OS (current)
  - UDB on Sun Solaris (under review)

- **UK**
  - Oracle

- **USA**
  - Custom applications

- **New Zealand**
  - Oracle
  - Brio

- **Norway**
  - Oracle – DWH Builder (under development/pilot)

- **Netherlands**
  - SAP
OUTCOME IMPROVEMENT – INTELLIGENCE

<table>
<thead>
<tr>
<th>Country</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>SAS</td>
</tr>
<tr>
<td>Canada</td>
<td>Not specified</td>
</tr>
<tr>
<td>UK</td>
<td>Not specified</td>
</tr>
<tr>
<td>USA</td>
<td>SAS</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Not specified</td>
</tr>
<tr>
<td>Norway</td>
<td>Under evaluation</td>
</tr>
<tr>
<td>Netherlands</td>
<td>SAS, Business Objects, ...and a lot more</td>
</tr>
</tbody>
</table>
PLAN & MANAGE ENTERPRISE

Plan & Manage Enterprise

Australia
- Custom (Executive Dashboard)

UK
- Not specified

New Zealand
- Oracle
- SAP
- EvolveIT
- Custom applications

Canada
- Custom (Data Warehouse & analytics)
- Oracle
- SAP (for data to DW + analytics)
- SAP BW – under investigation

USA
- ClearCase (Configuration Management tool)
- COCOMO-based (Software Estimation tool)
- Custom (Executive Dashboard)
- Endevor (Configuration Management tool)

Norway
- Under evaluation

Netherlands
- SAP
**ENABLERS - SECURITY**

<table>
<thead>
<tr>
<th>Enablers</th>
<th>Security</th>
<th>Workforce Mgmt</th>
<th>Interaction Svcs</th>
<th>Integration Svcs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Australia</strong></td>
<td><img src="Australia.png" alt="Flag" /></td>
<td>• <em>External I&amp;AM – custom</em>, using ATO-supplied PKI (current)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>  </td>
<td></td>
<td>• Internal I&amp;AM – Sun Identity Manager</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Canada** | ![Flag](Canada.png) | • Gov’t of Canada (Secure Channel & PKI, common look and feel standards) |  |  |
| &nbsp;&nbsp; | | • I&AM – under review |  |  |

| **UK** | ![Flag](UK.png) | • GetAccess | • IDS | • NetPoint |
| **USA** | ![Flag](USA.png) | • Netegrity | • E-Trust |  |
| &nbsp;&nbsp; | | • Multiple applications for personal identify verification |  |  |
| &nbsp;&nbsp; | | • **Single Sign On** |  |  |
| &nbsp;&nbsp; | | • Multiple audit trail analysis tools | • COGNOS |  |
| &nbsp;&nbsp; | | • Tivoli |  |  |

| **New Zealand** | ![Flag](New Zealand.png) | • IAMS (RSA, Clear Trust) | • *Custom applications* | • Novell e-dir |
| **Norway** | ![Flag](Norway.png) | • Audit trail analysis – multiple tools | • Personal identity verification – multiple tools |  |
| &nbsp;&nbsp; | | • **Single Sign On** | • Tivoli |  |
| &nbsp;&nbsp; | | • Checkpoint-1 Firewall | • Encryption |  |
| &nbsp;&nbsp; | | • eSecure |  |  |

| **Netherlands** | ![Flag](Netherlands.png) | • Not specified |  |  |

21
ENABLERS – WORKFORCE MANAGEMENT

<table>
<thead>
<tr>
<th>Enablers</th>
<th>Security</th>
<th>Workforce Mgmt</th>
<th>Interaction Svcs</th>
<th>Integration Svcs</th>
</tr>
</thead>
</table>

Australia
- SAP

Canada
- SAP & custom solutions – under review

UK
- Not specified

USA
- PeopleSoft HR

New Zealand
- SAP in time
- CHRIS 2.0
- eWFM (Aspect)
- Customer
- Siebel

Norway
- SAP
- TimeCon – time registration

Netherlands
- SAP HR
ENABLERS – INTERACTION SERVICES

Australia
- ACA.NET
- ENTLIB
- MS UIP Block

UK
- Not separately recognised

New Zealand
- E-Vision (Custom)

Canada
- Govt of Canada common look & feel standards

USA
- Blaze Advisor

Norway
- Adobe (Altinn)
- eForm Designer (internal design of forms)

Netherlands
- Not specified
ENABLERS – INTEGRATION SERVICES

<table>
<thead>
<tr>
<th>Enablers</th>
<th>Security</th>
<th>Workflow Mgmt</th>
<th>Interaction Svcs</th>
<th>Integration Svcs</th>
</tr>
</thead>
</table>

Australia
- WebSphere Business Integrator
- MQ Series

USA
- WebSphere Application Server
- WebSphere MQ
- EAI Broker

Canada
- BEA WebLogic
- MQ Series
- Sterling

UK
- .Net
- WebLogic and WebMethods (ESB)

New Zealand
- EAI – SeeBeyond
- WebSphere
- Custom applications

Norway
- MQ Series
- Citrix Metaframe
- Oracle IAS

Netherlands
- WebSphere MQ
CONCLUSIONS

15. The table below highlights areas where commonality exists between countries in the software applications being used to support capabilities/functions.

**Table 1: Summary of Common Software Applications**

<table>
<thead>
<tr>
<th>Capability/Function</th>
<th>Common Software Applications</th>
<th>No. of Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Delivery</td>
<td>.Net</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Documentum</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>IBM Content Manager</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Java</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>JSP</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Kana</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Siebel</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Vignette</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>WebSphere</td>
<td>2</td>
</tr>
<tr>
<td>Client Relationship Management</td>
<td>Genesys</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Siebel</td>
<td>2</td>
</tr>
<tr>
<td>Revenue Management</td>
<td>SAP</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Siebel</td>
<td>2</td>
</tr>
<tr>
<td>Case and Work Management</td>
<td>Siebel</td>
<td>2</td>
</tr>
<tr>
<td>OI – Analytics</td>
<td>SAS</td>
<td>4</td>
</tr>
<tr>
<td>OI – Information Management Policy &amp; Architecture</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>OI – Reporting</td>
<td>Business Objects</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>COGNOS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Crystal Reports</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SAS</td>
<td>3</td>
</tr>
<tr>
<td>OI – Data Matching</td>
<td>SAS</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SSA-Name</td>
<td>2</td>
</tr>
<tr>
<td>OI – Data Services</td>
<td>DB2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Oracle</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SQL Server</td>
<td>4</td>
</tr>
<tr>
<td>OI – Data Warehouse Management</td>
<td>Oracle</td>
<td>3</td>
</tr>
<tr>
<td>OI – Intelligence</td>
<td>SAS</td>
<td>3</td>
</tr>
<tr>
<td>Plan &amp; Manage Enterprise</td>
<td>Oracle</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>SAP</td>
<td>3</td>
</tr>
<tr>
<td>Enablers – Security</td>
<td>PKI</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Single Sign-On</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Tivoli</td>
<td>2</td>
</tr>
<tr>
<td>Enablers – Workforce Management</td>
<td>SAP</td>
<td>5</td>
</tr>
<tr>
<td>Enablers – Interaction Services</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Enablers – Integration Services</td>
<td>MQ Series</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>WebLogic</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>WebSphere</td>
<td>4</td>
</tr>
</tbody>
</table>

*OI = Outcome Improvement*
16. Overall, the survey responses indicate there is a diverse range of application software solutions in use or planned for future use, and provides an opportunity for member countries to seek and/or share information and experiences when considering change initiatives where new or redeveloped application solutions are required.

17. Custom-developed solutions are common for the Revenue Management capability with individual solutions often existing for different tax types (this is also Australia’s situation with its existing client accounting systems). Australia’s approach in undertaking a “package” solution for its future Revenue Management capability via implementation of the Tax Administration System (TAS) developed by Accenture is a somewhat different approach and, whilst not being a typical “commercial” product, will provide a valuable learning experience.

18. Other capabilities, such as ‘Outcome Improvement’, tend to towards greater adoption of commercial-off-the-shelf products. For example, the ‘Reporting’ function shows consistent use across countries of Business Objects, COGNOS, Crystal Reports and SAS. Similarly, a number of countries use SAP to support their Workforce Management function and DB2, Oracle and SQL Server to support Data Services.

19. In summary, there is consistency across some areas, but a wide range of variations across others.

20. The need for further updates to this inventory to incorporate new developments and/or input from additional countries will be determined at future meetings of the FTA Taxpayer Services Sub-group.
ANNEX 1: Description of the Australian Taxation Offices (ATO’s) Capability Model

**Capability - Channel Delivery**
Delivers products and services through channels in a manner that meets client needs while achieving ATO and government objectives.
Includes capabilities to support content, document and records management of inbound and outbound material.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Online**   | Supports interactive channels for the community, providing both static content and transaction services. Interactive channels include:  
- Portals (including business and tax agent)  
- Web sites (including ato.gov.au)  
- Web Services for external application integration (including e-tax and software providers)  
- Secure messaging (email) services  
- Search services across the various online web sites  
- **Calculators**.                                                                                                                                                                                                                                                                       |
| **Inbound**  | Supports predominantly non-interactive inbound channels for the community and other agencies. Includes:  
- Inbound paper processing for forms and whitemail, including image capture, ICR and key capture  
- Inbound fax processing  
- Inbound/Outbound bulk file and message handling (eg Electronic Lodgment Service (ELS), Electronic Commerce Interface (ECI) and government agency networks)  
- Secure messages from the Portals  
- Indexing, classification and routing of client requests  
- Inbound email (general email addresses only)  
- Link existing voice portal with Integrated Core Processing (ICP)  
- Key data capture for bulk forms that are not imaged.                                                                                                                                                                                                                                    |
| **Outbound** | Supports non-interactive outbound channels for the community. Includes:  
- Outbound material, including forms, letters and marketing/education material  
- Outbound delivery to paper, secure messaging, email and SMS channels  
- The naming, addressing, cc copying, merging, sorting, formatting, storing and printing of personalised mail items  
- Directing outbound material to the correct channel.                                                                                                                                                                                                                                   |
| **Content Management** | The enterprise functionality for initiating, approving, storing, maintaining and publishing approved ATO content for informational, transactional, interpretative and correspondence products, including marketing and education material.                                                                                      |
| **Document Management** | The Document Management capability will provide the ability to store and retrieve electronic versions of client documents. The electronic records management capability will be introduced to manage the retention and destruction of client electronic records in accordance with legislative requirements.  
*The Change Program is delivering this capability to cover client-related material. However, it will not be putting records management in place for administrative material (eg internal documents).* |
### Capability - Client Relationship Management
Delivers the right experience at the right time through the right channel.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Management</td>
<td>Provides client contact management services, in particular for the phone channel. Includes:</td>
</tr>
<tr>
<td></td>
<td>- IVR and CTI integration for staff operated phone services</td>
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<tr>
<td></td>
<td>- Integrated View of Client</td>
</tr>
<tr>
<td></td>
<td>- Tracking, recording, escalation and monitoring of client contacts.</td>
</tr>
<tr>
<td>Marketing and Education</td>
<td>Use of campaign management is not in scope for the Change Program.</td>
</tr>
</tbody>
</table>

### Capability - Revenue Management
Enables clients (including tax agents) to efficiently and effectively register, lodge and pay, and the ATO to recover the correct amount of tax and entitlement, whilst minimising the cost to the client.

<table>
<thead>
<tr>
<th>Function</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration</td>
<td>Provides client registration services. Includes:</td>
</tr>
<tr>
<td></td>
<td>- Non-individual registration by Australian Business Register (ABR)/Integrated Core Processing (ICP) and individual registration by Individual Auto Registration (IAR)/ICP</td>
</tr>
<tr>
<td></td>
<td>- Registration and maintenance of tax agents and all other intermediaries</td>
</tr>
<tr>
<td></td>
<td>- Endorsement of charities and deductible gift recipients</td>
</tr>
<tr>
<td></td>
<td>- Role registration and lodgment cycle determination</td>
</tr>
<tr>
<td></td>
<td>- Client data quality management</td>
</tr>
<tr>
<td></td>
<td>- Client relationships and linkages</td>
</tr>
<tr>
<td></td>
<td>- Client preferences</td>
</tr>
<tr>
<td></td>
<td>- Client Search</td>
</tr>
<tr>
<td></td>
<td>- Identity Strength</td>
</tr>
<tr>
<td></td>
<td>- Data Extracts for external agencies.</td>
</tr>
<tr>
<td>Generic Processing</td>
<td>Provides Lodgment and payment processing for all products, using a generic approach that can support new products. Includes:</td>
</tr>
<tr>
<td></td>
<td>- Product business rule processing</td>
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<tr>
<td></td>
<td>- Form generation</td>
</tr>
<tr>
<td></td>
<td>- Instalment arrangements</td>
</tr>
<tr>
<td></td>
<td>- Product risk processing</td>
</tr>
<tr>
<td></td>
<td>- Generation of account postings</td>
</tr>
<tr>
<td></td>
<td>- Generation of outbound communications (notice of assessment)</td>
</tr>
<tr>
<td></td>
<td>- Payment processing</td>
</tr>
<tr>
<td>Client Accounting</td>
<td>Provides account management services for all clients and all products. Includes:</td>
</tr>
<tr>
<td></td>
<td>- Client account maintenance</td>
</tr>
<tr>
<td></td>
<td>- Interest and penalty imposition and remission</td>
</tr>
<tr>
<td></td>
<td>- Refunds and disbursements.</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
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</tr>
</tbody>
</table>
| **Revenue Accounting**         | Provides summarisation, reconciliation and reporting for revenue accounts.  
                                  | - Maintains revenue accounting information on an internal General Ledger.  
                                  | - Provides users with direct access to revenue accounting information.  
                                  | - Reconciliation of revenue accounts to bank statements.  
                                  | - Reporting of revenue.                                                                 |
| **Debt & Lodgment**            | Identifies, creates and auto-actions cases where a client has either failed to lodge or failed to pay. Includes:  
                                  | - Initiate auto-recovery actions  
                                  | - Identify and create debt and lodgment case  
                                  | - Action debt and lodgment case  
                                  | - Process update transactions from data matching processes  
                                  | - Due date deferrals  
                                  | - Payment arrangements  
                                  | - Legal and prosecution details                                                                 |
| **Superannuation Processing**  | Provides specialised processing for Superannuation products. This will not be replaced by the Change Program will need to interface to Change Program capabilities.  
                                  | Note – as at August 2005, work is underway to assess the possibility of incorporating processing for Superannuation products into the Change Program, |

**Capability - Case and Work Management**
Delivers enterprise wide case and work management capability to support active compliance, provision of Written Advice, debt collection, actioning of inbound correspondence and exception processing.

<table>
<thead>
<tr>
<th>Function</th>
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</thead>
</table>
| **Enterprise Case Management**  | Supports enterprise wide case management using the initiate, plan, execute and close (IPEC) model. This includes:  
                                  | - Case management, assignment, tracking, administration and reporting  
                                  | - Case actioning including default assessments, amendments, penalty & interest, form letters etc  
                                  | - Update of case plans.                                                                 |
| **Enterprise Workflow**         | Supports enterprise wide work management of exceptions from Integrated Core Processing (ICP) and actioning correspondence. This includes:  
                                  | - Work item creation  
                                  | - Work allocation  
                                  | - Work actioning  
                                  | - Work reporting  
                                  | - Escalation  
                                  | - Workflow admin                                                                 |

**Capability - Outcome Improvement**
Provides feedback on the client experience, effectiveness of risk treatments and other enterprise information to continuously improve the operations of the ATO, and provides input to Case Management and Revenue Management to ensure appropriate and relevant treatment according to risk.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Function</td>
<td>Description</td>
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</tr>
<tr>
<td>Analytics</td>
<td>Provides analytical models to support case selection and the risk and market</td>
</tr>
<tr>
<td></td>
<td>segment treatment of clients. Includes:</td>
</tr>
<tr>
<td></td>
<td>- Creation and maintenance of analytical models</td>
</tr>
<tr>
<td></td>
<td>- Regular update of risk and segment information for operational systems</td>
</tr>
<tr>
<td></td>
<td>- Provision of case selection candidates for processing.</td>
</tr>
<tr>
<td>Information Management Policy</td>
<td>Information Management Policy and architecture covers the development of</td>
</tr>
<tr>
<td>and architecture</td>
<td>information models and the overall management of information within the</td>
</tr>
<tr>
<td></td>
<td>ATO.</td>
</tr>
<tr>
<td>Reporting</td>
<td>Provides a corporate reporting capability including transactional, management</td>
</tr>
<tr>
<td></td>
<td>and ad hoc reporting.</td>
</tr>
<tr>
<td></td>
<td>- Provides reporting capabilities to support operational management and</td>
</tr>
<tr>
<td></td>
<td>continuous improvement.</td>
</tr>
<tr>
<td></td>
<td>- Report generation</td>
</tr>
<tr>
<td></td>
<td>- Report distribution</td>
</tr>
<tr>
<td>Data Matching</td>
<td>Provides services for matching and interpretation of data from multiple</td>
</tr>
<tr>
<td></td>
<td>sources.</td>
</tr>
<tr>
<td>Data Services</td>
<td>Provides data quality and data conversion capability</td>
</tr>
<tr>
<td>Data Warehouse Management</td>
<td>An integrated and centralized data storage and access capability organized</td>
</tr>
<tr>
<td></td>
<td>specifically for end-user reporting and analysis.</td>
</tr>
<tr>
<td>Intelligence</td>
<td>Supports gathering, storing and interpretation of data from the community to</td>
</tr>
<tr>
<td></td>
<td>assist in case identification and selection</td>
</tr>
</tbody>
</table>

**Capability – Plan & Manage Enterprise**

*Provides the management processes and structure for running the day-to-day business of the ATO*

*This capability is not described further as it is not part of the focus of the ATO's Change Program.*

**Capability – Develop New Products & Services**

*Provides the processes and structure for developing new products and services for the ATO. This includes responding to legislative change, introducing new services, updating existing products and services, and the release of these new products and services to the workforce and community.*

*This capability is not described further as it is not part of the focus of the ATO's Change Program.*

**Capability - Enablers**

*Additional capabilities that can be used by any of the other major functionality areas.*

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Security</td>
<td>This capability ensures that corporate systems and data are secure from unauthorised access. This includes security for internal system to prevent unauthorised staff access, security for external facing systems to prevent unauthorised access by clients and logging of any unsuccessful attempts to access the systems by staff or clients. It also includes ensuring the security of the systems themselves from malicious or criminal attack, particularly from the public internet.</td>
</tr>
<tr>
<td>Function</td>
<td>Description</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Workforce Management</td>
<td>Provides management of the ATO workforce, in particular focusing on the information required for workflow management.</td>
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<tr>
<td></td>
<td>- Engagement and Termination processing.</td>
</tr>
<tr>
<td></td>
<td>- Skills management.</td>
</tr>
<tr>
<td></td>
<td>- Holiday management.</td>
</tr>
<tr>
<td>Interaction Services</td>
<td>A system capability that provides the services, patterns and templates required to develop User Interfaces that comply with the ATO User Interface standards, branding rules, legal requirements (eg adherence to the Web Accessibility Guidelines for the disabled). Also includes Fraud Prevention and Control (FP&amp;C) logging.</td>
</tr>
<tr>
<td>Integration Services</td>
<td>A system capability providing all services involved in supporting integration between the applications described in this portfolio. Broadly this covers three types of integration:</td>
</tr>
<tr>
<td></td>
<td>- Interaction Layer integration – seamless in-context navigation between user interfaces in the applications</td>
</tr>
<tr>
<td></td>
<td>- Service layer integration – standard Enterprise Application Integration</td>
</tr>
<tr>
<td></td>
<td>- Data layer integration – replication of data between master and slave databases</td>
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<tr>
<td></td>
<td>This capability is also responsible for Transaction Audit logging.</td>
</tr>
</tbody>
</table>