



CCSBT-CC/1310/BGD02
(Previously CCSBT-CCWG/1305/05)

Proposal for a Web-Based Electronic CDS (eCDS) System

The Seventh meeting of the Compliance Committee requested that the Secretariat explore the costs and benefits of a web-based eCDS. Towards this goal, the Secretariat prepared a proposal for a web-based eCDS as a starting point for developing a common understanding on a CCSBT eCDS to enable costings to be obtained prior to CC8. The proposal was distributed to Members in Circular #2013/007 during February 2013 and a slightly updated version of this proposal is provided at Attachment A. The updated version contains some minor corrections to that in Circular #2013/007. Nothing of significance has changed.

Comments will be sought from the meeting as to the suitability of the general direction of the proposed eCDS described in Attachment A and what changes, if any, should be considered to this direction prior to developing preliminary cost estimates.

Secretariat Proposal for a Web-Based Electronic CDS (eCDS) System

The CCSBT Catch Documentation Scheme (CDS) has been in operation since 1 January 2010. It is intended to record all catch of Southern Bluefin Tuna, regardless of whether the Southern Bluefin Tuna were traded or landed domestically.

The Nineteenth meeting of the Extended Commission supported the request by the Seventh Compliance Committee meeting to explore the costs and benefits of a web based electronic Catch Documentation Scheme (eCDS) system, with a progress report to be provided to the Compliance Committee Technical Working Group to be held in May 2013.

This paper provides a brief outline of a Secretariat proposed web-based eCDS, lists the associated objectives, provides a conceptual outline of how the system would operate, and identifies some current practises that would need to change for an eCDS to be practical to implement.

In order to estimate costs for such an eCDS, the Secretariat requires a good understanding of the type of eCDS that Members would like to have. As such, the proposal presented here is only a starting point to help focus discussions. The final CCSBT eCDS proposal may change substantially depending on Members' views and needs.

Note that within this document, references to "Members" includes Cooperating Non-Members and OSECs¹, except for matters such as decision making, which are for Members only.

¹ OSEC means 'Other State/Fishing Entity Cooperating in the CDS'. This document will refer to Members/CNMs and OSECs simply as Members for brevity.

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1. Background

1.1 Paper-Based CDS

The CDS is currently ‘paper-based’, requiring paper copies of forms to be completed and retained by Members, accompany shipments, and be forwarded to the CCSBT Executive Secretary on a quarterly basis. This results in a large number of paper forms being produced and replicated for administrative purposes.

Another consequence of the current paper-based system is that most data checks are only conducted after forms have been received and processed by the Secretariat, which can be many months after the actual landing, transshipment, export, re-export or import operation. Therefore, many compliance problems are not detected until after a considerable time-lag has occurred, potentially requiring significantly more effort to resolve.

1.2 Electronic CDS (eCDS)

An ‘eCDS’ is an electronic system where users (rather than the Secretariat) enter the data directly into a central computerised database system to store the information required rather than onto paper forms. Such a system will result in a significant reduction in the volume of paper required and a significant increase in the speed and efficiency of CDS data provision. Using a central database system will also mean the data are available immediately to authorised users, and will ensure that data quality and reliability can be better maintained.

2. Scope of this Proposal

This eCDS proposal focuses on the capture of data from Catch Monitoring Forms (CMFs), Re-Export/Export after Landing of Domestic Product Forms (REEFs), and Catch Tagging Forms (CTFs) only.

For cost/benefit reasons, it is envisaged that the eCDS would not include an interface for Members to enter data onto Farm Stocking and Farm Transfer Forms when initially developed because very few of these form types are submitted to the Secretariat. Instead, the Secretariat would enter data for these forms into the eCDS, much as is done in the current paper-based system.

Finally, some changes to current operational practices would be required to allow the eCDS to function most efficiently, and these are identified and discussed in Section 8.

3. eCDS Design

This proposal has been designed to be as compatible as possible with the current CDS Resolution and CDS operational practises in order to:

- Take advantage of the experience gained with the current, successful CDS system;
- Minimise the amount of retraining required for Members and their industry;
- Enable the current paper-based system to remain compatible with the eCDS during the proposed 'phase in' period; and
- Allow for a paper-based alternative to remain available as an emergency back-up option if required.

It is assumed that the eCDS will need to be a dual language system (both English and Japanese). Building a dual language eCDS will cost significantly more than a single language eCDS. However, building a system capable of being expanded to more than two languages may not cost significantly more than a dual language system. The Secretariat seeks advice as to whether Members want the eCDS to be designed in a manner that will facilitate its expansion to include more than two languages in the future.

It is envisaged that an eCDS may still require a paper copy of the form to accompany the SBT as required under section 1.2 of the CDS resolution. This paper copy would be produced after the required Sections of the form have been completed, and would be printed directly from the eCDS system.

4. Objectives of the Proposed eCDS

In developing this proposal, it has been assumed that the primary objectives of introducing an eCDS are to:

- Improve compliance;
- Improve timeliness of data availability; and
- Improve efficiency and reduce operational costs².

² It is intended that improved efficiency would reduce operational costs of industry, Members and the Secretariat. However, it is not yet known if the reduction in these costs will be sufficient to offset the costs for initial development and ongoing maintenance of the eCDS computer system.

In order to achieve these objectives, the proposed eCDS will allow Members to :

- Enter all of their own CDS data;
- Conduct quality assurance for all of their own data via automated checking routines at data entry and validation points;
- Manage their own CDS users (excluding Administrators and Validators, who would be managed by the Secretariat); and
- Run reports on their own CDS data as required.

5. Operation of the Proposed eCDS System

The following sections provide more details about how the proposed eCDS would operate in practice.

5.1 A Web-based eCDS

It is proposed that the eCDS will be a web-based system. A web-based system operates by requiring users to logon via a secure webpage, using commonly available web browser software in a similar manner as for internet banking. Such a system will allow authorised users to enter data or perform other functions without the need for installation of specialised software.

5.2 Hosting

The Secretariat further proposes that the eCDS be hosted by an external provider. An externally hosted system will provide a significantly reduced setup and maintenance cost compared to hosting the site internally at CCSBT. This is because the required hardware and software will be provided and preconfigured by the external host³ rather than the Secretariat.

An external provider would also be required to provide high availability of the system (24/7), high levels of security, and excellent disaster recovery and backup options, ensuring that the system is as reliable and robust as possible.

5.3 User Roles

The creation of multiple users roles within an eCDS system will be essential for both its security and efficiency.

It is envisaged that a minimum of four different user roles will be needed for Members and their industry personnel:

- i) Administrator,
- ii) Creator (can be an individual or a company),
- iii) Certifier (an individual or in certain circumstances may also be a company), and
- iv) Validator.

Attachment 1 provides further details about these roles.

³ A system hosted within the Secretariat offices would require purchase, setup, and ongoing maintenance of Server hardware and software, along with the expertise of external providers (or additional staff) to update and manage the system.

5.4 Records of Authorised Vessel and Farms

Under the current paper-based CDS system, the CCSBT Secretariat loads and maintains up-to-date records of authorised vessels and farms. It is recommended that this process remain unchanged in the eCDS except that the eCDS should be linked to this information to enable real-time verification of whether vessels and farms are authorised.

5.5 Standardised Lists of Names/ Codes

The CCSBT Secretariat maintains a variety of standardised lists which are used within the current CDS system. These include lists of processor and exporter names, product types, gear codes, statistical areas, cities and States/Fishing Entities. Under the eCDS, it is proposed that these pre-existing lists be maintained and be available to users in tailored searchable 'lookup' lists⁴. In addition, it is suggested that users are given the option to add in new processor/exporter names and cities in cases where the required details do not already exist on the system. The Secretariat would review any new additions to these lists on a regular basis to check for potential duplicates and/or other data issues.

5.6 Key Form Processing Functions

This section provides a brief overview of the main CDS form processing functions within the proposed eCDS. These are presented in logical sequence. Attachment 2 provides a flowchart that indicates the proposed processing sequence for a CMF.

i) Issuing of Forms

The first step in the process will be to issue a new CDS form or forms. Only 'Administrator' users will be able to perform this function:

- The 'Administrator' issues a single CDS form (CMF, REEF or CTF) or multiple forms (similar to the books of paper forms that some Members currently issue) to a specific individual or company,
- The 'Administrator' sets an expiry date at the time of issue (e.g. any unused forms would expire within 12 months). If desired, it would also be possible to allow the Administrator to set the maximum tonnage that could be recorded on either a single or a group of CMFs issued to a particular person/company,
- Issued forms will become available/visible to the 'Creator' for form creation and initial data entry purposes.

ii) Creation of Forms

The second step requires the initiation/creation of actual CDS forms. This step must occur before the data entry process can commence. This step will be carried out by 'Creator' users:

- The Creator logs into the eCDS web site and selects the next available⁵ issued form to initiate/create (either a CMF, REEF or a CTF as required),
- A Unique System ID (USI) is assigned to each form⁶ as it is created.

⁴ The reference to "tailored searchable lists" is intended to indicate that these lists would be tailored to the Member/User that is completing the form. Some lists would be shown as dropdown lists and others (e.g. processors) would allow users to manually type in names and a list of suggestions would be provided once sufficient characters had been typed. In the case of processors and exporters, the list would be restricted to processors/exporters for the Member country/Fishing Entity. For all lists, the list could be tailored according to recent usage by that user (e.g. showing that user's most commonly utilised codes first).

⁵ Forms that have expired will not be available to be created.

⁶ It is possible that there will be multiple USIs for each form. These USIs would be for different parts of the form so that there is control over which part of a form different Certifiers and Validators *etc.* could see.

iii) Data Entry

The next step in the process is data entry. This step can be completed by a combination of 'Administrator', 'Creator' and 'Certifier' users:

- The Creator completes the header section of the issued CMF, REEF or CTF,
- Other parts of CDS forms would be completed by a combination of the Creator, Certifier(s) and/or Validator(s) as appropriate once these users have logged onto the system and accessed the form using its unique identifier details,
- Information can be entered into some sections of the form simultaneously,
- Any of the above users can choose to run automated data checking routines at any point by selecting the 'Check Form' button.

iv) Certification

To certify an eCDS form, a person (or a company in certain circumstances) must have first created an account for themselves within the eCDS. The Certifier will use this account to log onto the eCDS using the form's unique identification details (USI and actual CDS form number) in order to check and certify the appropriate section of the form.

Further details on the certification process, including registration and approval of Certifiers are outlined in Attachment 3.

v) Validator(s) Notified (applies to CMFs and REEFs only)

- Once all of the required fields have been completed and certified on the relevant section of a form, users will notify validators that a form is ready to be checked and validation approval given if appropriate.

vi) Validation (applies to CMFs and REEFs only)

Once data entry and certification of a form/section are complete, the form/section will need to be validated by an authorised validator:

- A validator will validate a CDS form either by:
 - i) logging into the eCDS, entering the document number and USI for that form,
 - ii) logging on, viewing and selecting forms from a queue of finalised forms which have already been sent to the validator by another user, or
 - iii) where the form is already being accessed by another user (*e.g.* the 'Creator'), click in a validator field which will then prompt the validator for their username and password to allow validation to proceed,
- Validation cannot be conducted until data entry of all fields in the relevant section(s) of the form is completed, unless the validator chooses to over-ride missing information that cannot be provided at the time of data entry,
- The validator will manually check that the form is complete and certified correctly,
- The validator will then select a 'Validate' button which will run automated checking routines to ensure that there are no items of missing data, errors, or data discrepancies,
- If the form passes the automated checking procedure, the validator will then issue a validation approval for the appropriate section of the form,

- If the form fails the checking procedure, the validator can decide to:
 - i) either notify the Creator or Certifiers as appropriate that there are data issues which need to be fixed, or
 - ii) in cases of time pressure or where any data issues do not seem resolvable within required timeframes, the validator may choose to over-ride any issues identified. In such cases, the validator will be required to enter a reason for the over-ride and the form will be clearly marked as having validation checks over-ridden. Furthermore, a log of any such over-rides will be created and the Secretariat and the relevant Member's Administrator will automatically be notified by email of any over-ride decisions made by the validator,
- Once all data issues have been corrected or the over-ride procedure has been selected, then a validation approval can be given for that form/section.

If validation of the form is not completed on the first attempt, then the above steps must be repeated until a validation approval can be given for the form. Further details on the validation process are outlined in Attachment 4.

6. Confidentiality, Security and Audit Trails

It is intended that confidentiality under the eCDS be the same as in the CDS. In other words, Members would have access to the same data that they can currently access. Members would not have access to data from other Members that they do not currently have access to. Any change from this would require an explicit decision from the Extended Commission.

With the exception of the Secretariat, Administrators (who can access any form issued or received by that Member) and Creators (who can access any form they create), all other users may only access that part of a form for which they know both the form number and the USI.

A full audit trail will be kept of all changes to each CDS form. Furthermore, rules will be established to specify what changes can be made to eCDS forms, together with who can make the changes and when changes can be made. Draft rules of an indicative nature are provided at Attachment 5, but these will need to be subject to rigorous discussion by Members if the CCSBT decides to proceed with an eCDS.

Security of accounts and access to data will be maintained through a system of accounts and passwords. To prevent hacking, passwords will have minimum length and complexity rules, together with a "four times and you are out policy" for incorrect passwords⁷. All internet communication with the eCDS will be conducted via "https" (like internet banking) to ensure that all data is encrypted to prevent interception of any transmitted data.

7. Timeframe for Implementation of eCDS

It is proposed that the implementation phase would involve both the current paper system and the eCDS to be running 'side by side' for a period of time. During this phase, the workload

⁷ Once an account is locked for 4 incorrect passwords in a row, Administrators and Validators would need to contact the Secretariat to have their accounts re-activated. Creators would need to contact the Member's Administrator. Certifiers could request that a new password and activation link be sent to them at their registered e-mail address.

and associated costs of running the overall CDS would be expected to increase significantly due to running both systems.

It is therefore important that the majority of Members implement the eCDS, with a view to phasing out the paper version within a set timeframe. It would be impractical and costly to continue a 'side by side' system for an extended period.

A two year trial of the eCDS is recommended, so that the outcomes of the first year can be reviewed by the Compliance Committee and any enhancements or issues can be resolved for testing during the second year. During the first year of the trial, it is proposed that Members use the eCDS for at least 5% of forms for frozen product, but not for fresh product (due to the shorter time available for fresh product). For the second year, it is proposed that the trial involve at least 50% of forms for frozen product and at least 5% of forms for fresh product (the latter being on a voluntary basis).

Attachment 6 provides a tentative timeframe for implementation of the eCDS. With this timeframe, there is one year of design work, one year of system development (building the eCDS computer system) and two years of trials. Consequently, under this timeframe, the eCDS will not be in full operation until January 2018.

8. Processes that Require Changing Under an eCDS

There are a number of obvious changes that will occur with moving to an eCDS, such as requiring a computer or tablet⁸ with a live internet connection in order to create, complete, validate, or certify eCDS forms. Similarly, an eCDS account is required to conduct any of these functions.

In addition to these obvious changes, the Secretariat has identified two types of practises that need to be changed in order for the eCDS to fully achieve the objectives defined in Section 4. These are:

1. Timing of Provision of Catch Tagging Forms (CTFs)

The current paper-based Catch Monitoring Form requires that CTFs must have been completed for all SBT on the CMF, and that the CTF form number(s) have been recorded on the CMF. However, the current CMF does not require the actual tag data to be provided at the time the CMF is validated.

Under the eCDS, the CTF data should be provided (entered⁹ into the eCDS) prior to the Catch/Harvest section of the CMF being validated. This is necessary to ensure that there is no missing CTF data and so that cross-checks between CMF and CTF data can be conducted when validating CMFs.

If the CTF data is not provided before validation, the eCDS will not achieve its full compliance benefits (because important checks cannot be conducted in real-time), nor

⁸ It may also be possible to use a smart phone such as an iPhone or Android phone.

⁹ It is envisaged that there would be two options for loading tag data into the eCDS: (1) manually entering the data directly into an eCDS data entry screen. This would be the best method for CTFs that involve only a few individual SBT; and (2) Using an automatic data "loading" routine to load an entire spreadsheet (with a pre-defined format) of CTF data into the eCDS. The eCDS would check the tag data as it loads it (rejecting any flawed data). This would be the best method to use when large quantities of tag data need to be entered, or when the tag data needs to be recorded electronically at a location that does not have an internet connection.

will the eCDS achieve its full efficiencies. The latter is because errors due to missing CTF forms and incorrect recording of CTF form numbers on either CMF or CTF forms are the most difficult and time consuming errors for the Secretariat to follow-up. If the eCDS does not address this issue (by checking this in real-time), the eCDS will not address the most inefficient aspect of the current CDS from the Secretariat's perspective.

2. Timing of Provision of Farm Stocking Forms (FSFs)

The current paper-based Catch Monitoring Form requires that FSFs have been produced by the Flag State/Fishing Entity for all SBT on the CMF, and that the FSF form number(s) have been recorded on the CMF. However, the current CMF does not require the actual FSF data to be provided at the time the CMF is validated.

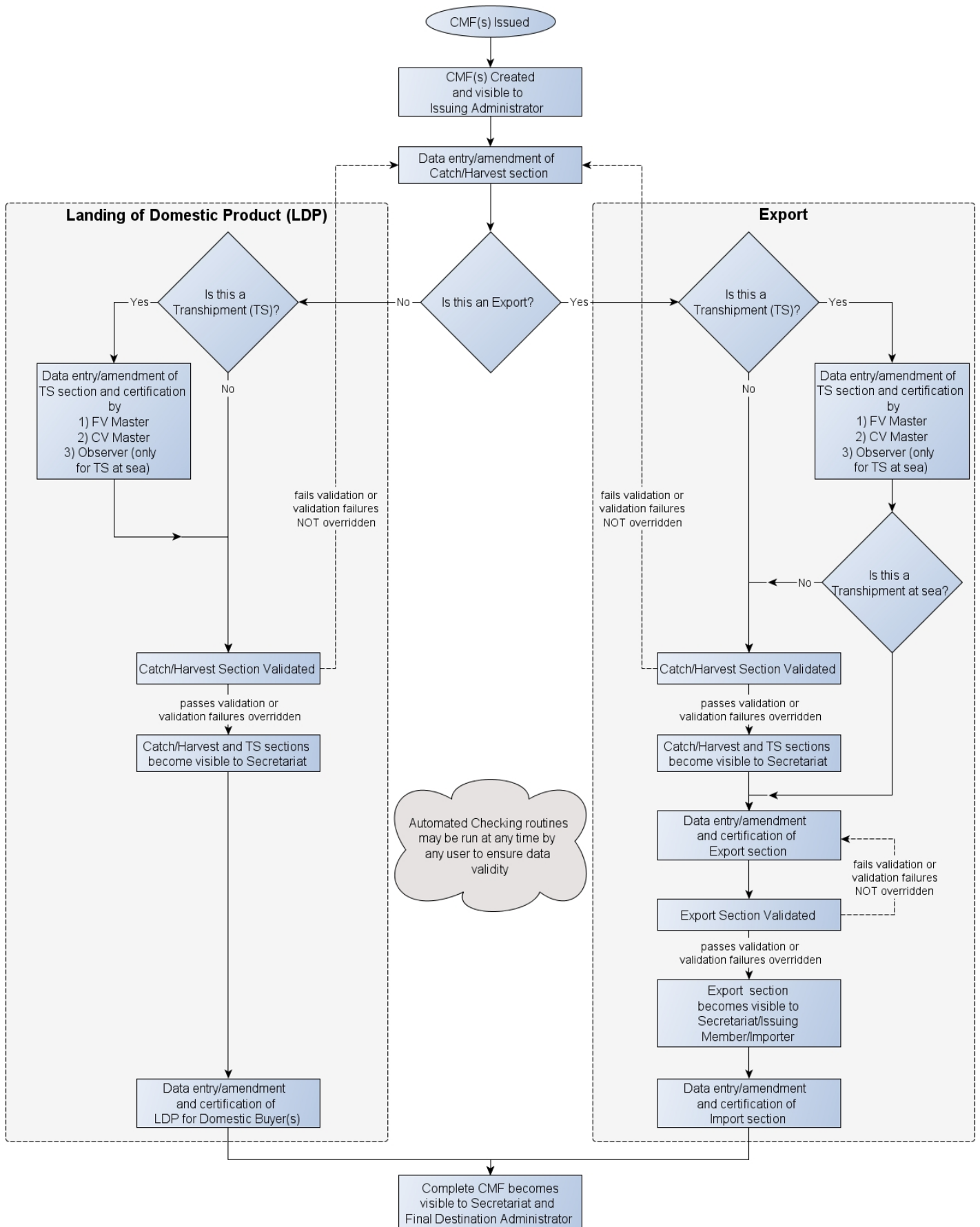
As with the CTF data, FSF data should be provided (entered into the eCDS) prior to the Catch/Harvest section of the CMF being validated so that the proper cross-checks can be conducted in the eCDS. Without this, the compliance benefits of the eCDS will not be maximised. However, unlike the CTF data, few FSF forms are provided, so if the current practise for FSF forms is continued, it will not have a significant detrimental impact on efficiency gains from the eCDS.

Attachment 1 - Roles within the eCDS

A single person may have one or more Roles within the eCDS. All Roles except “Creator” and “Certifier” must be an identifiable person. A “Creator” may be either a person or a company. Most “Certifiers” must be identifiable individuals. However, according to the instructions in the current CDS resolution, imports and domestic sales may be certified by either a company or an identifiable individual.

Role	Description	User assigned by	Function and Access
Administrator	Issues eCDS forms, administers a Member’s users and may modify the Member’s forms	Secretariat	<ul style="list-style-type: none"> • Issues eCDS forms to a form “Creator”. • Creates eCDS accounts for a form “Creator”. • Has “Creator” and “Certifier” roles. • If on the list of validators provided to Executive Secretary, will also be given “Validator” access. • Receives automated emails from the eCDS (such as “over-rides” given by validators to forms that failed validation checks. • <i>If desired by Members, Administrators could also be responsible for activating each Certifier account.</i> • May view any eCDS form created or received by the Member. • May run reports on the Member’s eCDS data.
Creator	Create eCDS Forms	Administrator	<ul style="list-style-type: none"> • Creates (i.e. starts completing) CDS forms that have been issued to it. • Completes the header section of its CMF, REEF and CTF forms. • Completes the Catch/Harvest section of its CMF forms (with exception of the validation part). • May view the header section and the section immediately after the header of any form it creates.
Certifier	Certifies eCDS Forms	Self Registration <i>(option for Administrator activation of accounts)</i>	<ul style="list-style-type: none"> • Certifies and completes certified sections of eCDS forms. • May view the section requiring certification (and any previous section) of any eCDS form that he/she has been given the form number and USI of. <i>If Members choose to have Administrator activation of accounts, a further restriction will be added that the Certifier can only access forms for the Member that activated the account.</i>
Validator	Validate Sections of eCDS Forms	Secretariat	<ul style="list-style-type: none"> • Provides validation approval for the validation section(s) of eCDS forms. • May provide an over-ride for eCDS forms that fail validation checks (if required). • May view the section requiring validation (and any previous section) of any eCDS form for that Member that he/she has been given the form number and USI of.

Attachment 2 - Processing Sequence Flow Diagram for a Catch Monitoring Form



Attachment 3 - Details Regarding Operation of the Certification Process

Certification with a signature is required in many places on the current CDS forms. In most cases, certification must be conducted by an individual, but according to the CDS Resolution, import and domestic buyer certification may also be conducted by a company.

The current paper-based CDS system does not require that individuals/companies need to be authorised to certify forms. Therefore, it is recommended that the eCDS will also not require such an authorisation process. However, it is proposed that in the eCDS a Certifier will only be permitted to certify one item on any single CDS form. For example, one individual will not be able to certify a single form as both the Master of the Fishing Vessel and the Master of the Carrier Vessel, or as both the Exporter and the Importer.

Registration and Approval of Certifiers

A large number of certifiers are required in the paper-based CDS, and the eCDS will require the same number of certifiers. Therefore, the eCDS will need to include an efficient process for the creation and management of these certifier accounts.

It is proposed that Certifiers set up an account on the eCDS by visiting an eCDS registration page where they can enter their details to obtain a username and password. These details will include items such as: (company) name; physical address; valid email address; contact phone number and the name of the Member the individual will be certifying CDS forms for (e.g. Australia, Japan).

One option to provide control over who can register as a certifier would be to introduce an approval step. For example, once a Certifier has registered and created a new account, the Member's eCDS Administrator could be sent an automatic email noting the registration. The Administrator could then be required to approve any new Certifiers before they are able log onto the eCDS.

This simple security step would ensure that a Member's form could only be viewed and certified by a person approved by that Member. Members should advise the Secretariat whether they wish such an additional step to be included within this proposal.

Certification

Once certifiers have created and activated¹⁰ an eCDS account and potentially had this approved, they will then be able to log in and enter the CDS form and USI number (provided to them beforehand), in order to view and certify the appropriate form(s)/section(s).

Certification of Transshipments

Finally, please note that the Secretariat does not have sufficient practical knowledge to suggest how certification should operate when transshipments occur. The Secretariat is therefore seeking advice from Members on this matter.

¹⁰ An activation step, involving the eCDS sending an activation link to the specified e-mail address will test that the e-mail address is valid and associated with the person entering the details.

Attachment 4 - Details Regarding Operation of the Validation Process

As originally intended for the paper-based CDS, the validation of CMFs and REEFs will be a major checking point in the eCDS system. Approval to validate CDS forms on the eCDS will only be given to individuals who have been notified to the Executive Secretary as authorised validators.

Validators

The Secretariat will provide authorised validators with accounts and logins to the eCDS. It is envisaged that any validator will then be able to validate any part of any type of eCDS form filled out by the Member¹¹ who authorised that validator. However, validations on CMFs will need to occur sequentially (validation of the catch/harvest section to be conducted before the validation of any export information – where applicable), requiring that restrictions be placed on the order in which validation of the different CMF sections occur. Similarly, restrictions will be created so that it will not be possible for an importer to see the CDS form or to enter details into the ‘Final Product Destination’ section until validation approval of both the catch/harvest section and the export information has been completed.

Automated Checking Routines

Once logged on to the eCDS, a validator should first check all details manually and then must complete checking by clicking a ‘Validate’ button to initiate the automated validation process. The eCDS will then run a range of automated checks on the form (based on checks currently conducted by the Secretariat) and against associated forms (such as CTFs and FSFs) to identify any missing or incorrect values or any discrepancies.

These eCDS automated checking routines will also be available to all individuals who have permissions to enter data on to the CDS form. This will enable any of these individuals to check and fix any errors before requesting validation approval.

Validation Approval & Over-Ride Facility

If the checks reveal errors/discrepancies on the form, the validator will usually require the errors to be fixed by the Certifier or Creator before giving final validation approval. However, for efficiency purposes¹², validators will also be given an “over-ride” facility in certain predefined cases¹³. The Secretariat considers the “over-ride” facility to be extremely important for practical operation of the eCDS.

The over-ride facility will allow the validator to issue a validation approval even if the CDS form fails the automated checks. However, the validator will be required to enter a reason for over-riding the validation checks. Furthermore, any forms in which validation checks have been over-ridden will be clearly marked so that this can be seen at the final destination. In addition, an automated email will be sent to the Secretariat and to the relevant Member’s eCDS administrator detailing the over-ride and the reason given.

¹¹ It would be possible to specify different validator types in the eCDS (i.e. define what types of validation different validators can do), but this is not required in the CDS resolution, so it has not been included as a requirement in the current eCDS proposal.

¹² Because of a possibly overly strict eCDS or unforeseen circumstances – for example, due to a simple administrative issue, a vessel may not appear on the CCSBT authorised vessel list on the harvest date when it should.

¹³ It is yet to be determined what circumstances “over-rides” should be allowed for. In fact it may be that over-rides should be allowed for all errors except certain absolutely essential items.

Finally, a log of all over-rides will be kept on the eCDS system, and checked regularly by the Secretariat. A summary of the over-ride log could be reported in the Secretariat's annual compliance with measures paper to the Compliance Committee to ensure that the over-ride facility is not misused.

Attachment 5 - Draft Rules for Changing the Content of eCDS Forms

This attachment presents draft rules concerning who may make changes to eCDS forms, what happens when information is changed, when the information can be changed and when a form is considered to be complete. These draft rules relate mainly to CMF and REEF forms. Further consideration is required before extending these rules to CTF forms.

Who may change what information on an eCDS form?

The following policy is proposed for changes to eCDS forms:

- The user who entered specific data may change that specific data.
- A Member's Administrator can change any of that Member's data except validation details. An Administrator who is also a Validator may also change validation details.
- Any Validator may re-validate any validation section on any eCDS form for the Member that the Validator is authorised for.
- Any Certifier may re-certify (including changing associated details – such as export city if re-certifying the export) any certification section on any eCDS form for the Member that the Certifier is a certifier for.
- The Secretariat may make any necessary administrative changes to any form or other appropriate changes at the request of the relevant Member.

What happens when information is changed?

A complete audit trail will be automatically kept, so it will be possible to see the data values before and after each change, together with details of who made each change and when. No consideration has been given to who can see the audit trail. It might only be the Secretariat that can view the audit trail because of the complexity of this information and possible costs involved in making it accessible to all Members.

Except for changes made by the Secretariat, if the data being changed is in a section or part of the form that has been previously validated, then those changes will not become visible to other users (i.e. the changes will not become live and the old data will continue to be used) until that section or part of the form has been re-validated. This applies to the Catch/Harvest Section and Export part of CMF forms. It also applies to the Export Section of REEF forms. For the purpose of this rule, the header Section of a CMF is considered to be part of the CMF's Catch/Harvest Section and the header Section of a REEF is considered to be part of the REEF's Export Section. As a consequence, changes to the header of either of these forms will also require re-validation.

When can information be changed?

eCDS forms can be changed following initial data entry, however, there are some points in the processing of forms after which earlier information should be "locked" (i.e. no longer editable). Once part of a form has been "locked", then any further changes to that part **can only be made via requests to the Secretariat**. This concept is similar to passing a paper form to the next person/Member, after which time the previous person/Member cannot change what they wrote on the form. The following rules are suggested:

- For SBT exports, all pre-import information (e.g. description of fish, export details etc.) should not be changed once the importer has accepted the product and associated documentation. Consequently:
 - For CMFs, the Header, Catch/Harvest and Intermediate Product Destination Sections cannot be changed¹⁴ after Certification of the import¹⁵.
 - For REEFs, the Header and Export Section cannot be changed¹⁴ after Certification of the import¹⁵.
- For landings of domestic product, it is suggested that all information on a CMF prior to the Final Product Destination should not be allowed to be amended¹⁴ once a buyer has accepted the product and certified the associated section. Sometimes product is sold to multiple buyers, in which case, changes to the earlier sections should not be made after certification of the first domestic sale¹⁵ has occurred.
- Once an eCDS form has been completed (see next section), no further changes will be permitted¹⁴.

When is a CMF considered to be complete within the eCDS? *(REEF completion will be similar)*

The Final Product Destination Section of a CMF requires no involvement of an authorised person (e.g. no validation requirement), so if completion of this final section was considered to be completion of the form in the eCDS, a Member’s authority would have no opportunity to review the quality of that final section. To allow Members the opportunity to exercise quality control on this final section (and to enable Members to specify that all domestic sales have occurred), it is proposed that eCDS forms only be considered to be complete once the relevant Member ticks a completion box for the form. Ticking a form as being complete will be conducted by:

- In the case of the Final Destination being a Member (including CNMs & OSECs), an Administrator of the Member at Final Destination;
- In the case of an Export to a non-cooperating non-member, an Administrator of the exporting Member.

Once a form is marked as complete, the only way to make a change to the form will be to request the Secretariat to make the change. This is similar to the current process with the paper-based CDS once the forms have been received by the Secretariat.

The timeframes for “completion” in the eCDS will be similar to the timeframes for providing the Secretariat with copies of forms in the paper-based CDS, and are:

- For imports, forms should be completed within 3 months of the date of import certification;
- For landing of domestic product, forms should be completed within 3 months of the certification of the sale of the last SBT¹⁶ on that form;
- For exports to a non-cooperating non-member, forms should be completed within 3 months of validation of the export section.

¹⁴ Except through the Secretariat.

¹⁵ If a necessary change was noticed after certification, the certifier could remove their certification to allow earlier information to be changed. This would be an equivalent concept to an importer pointing out an error to an exporter and having the exporter send a modified form.

¹⁶ The eCDS will estimate the date of last sale as the date when all the SBT in the Catch Harvest Section have been recorded as being sold in the Final Product Destination Section.

Appropriate reports will be available to Administrators to check which eCDS forms are ready to be marked as complete.

Completion is not required for the Secretariat or Administrators of relevant Members to see and produce reports on certain parts of relevant forms (the timing of visibility of different parts of the CMF are shown in Attachment 2). It is important that appropriate sections of incomplete forms be available to the Secretariat and relevant Member Administrators in order for the eCDS to meet the objective of improved timeliness of data availability.

Summary reports produced by the Secretariat utilising data from incomplete eCDS forms will only be available to CCSBT Members. The public would not have access to any information (including information specified in paragraph 6.4 in the CDS resolution) that was produced using incomplete forms.

Attachment 6 - Tentative eCDS Implementation Timeframe

Stage Completion Date	Stage	Cost Indicator	Details
October 2013 (CCSBT 20)	High level eCDS proposal with indicative costs and benefits	Low (<i>conducted within existing budget</i>)	A draft high level eCDS proposal provided to the CCSBT 20 that includes indicative costs and benefits, as well as any associated changes that would need to be made to the CDS Resolution. CCSBT 20 to agree on a high level proposal and provide a decision (and funding) on whether to proceed with the next stage.
October 2014 (CCSBT 21)	Detailed eCDS design and planning with quotes for system build	Medium (<i>Significant Secretariat time required for design & development of specifications; Holding a 5 day¹⁷ eCDS design & planning workshop, and possibly \$10-30K in consultancy</i>)	The detailed design of the eCDS would be finalised in the first half of this year (with the aid of a workshop). The Secretariat would then seek requests for proposals (with quotes) to build the eCDS computer system based on the detailed final design. A decision (and funding) needs to be provided by CCSBT 21 on whether to proceed based on the costs of the proposals received. Any changes necessary to the CDS Resolution to accommodate the introduction of the eCDS system would also need to be agreed and adopted at CCSBT 21.
October 2015 (CCSBT 22)	Build and test eCDS system	High (<i>Full cost of developing the new eCDS. Significant Secretariat time required for project management & testing. Some testing time & training also required from Members</i>)	eCDS completely built and tested prior to CCSBT 22. Additional training of Members to occur in the margins of CCSBT 22. Decision required from CCSBT 22 regarding whether the system is at a suitable level to conduct first year of trials.
October 2016 (CCSBT 23)	First year/phase of eCDS trials	High (<i>Significant development costs are likely as Members discover changes or enhancements that are required to the eCDS. Significant Secretariat time to maintain two CDS systems and to conduct further work on the eCDS</i>)	Trial to involve at least 5% of forms for all Members frozen product. CCSBT 23 to decide whether the eCDS is ready to move to the second phase of trials and to confirm whether the proposed 50% of forms for frozen product and voluntary use of eCDS with fresh product is still appropriate for the second phase of trials.
October 2017 (CCSBT 24)	Second phase of eCDS trials	High (<i>Combination of some remaining development costs for enhancements and maintenance costs. Significant Secretariat time still required to maintain two CDS systems</i>)	Second phase of trial involves at least 50% of forms for Members' frozen product and at least 5% of forms for fresh product on a voluntary basis. CCSBT 24 to decide whether the eCDS is ready to move to full implementation commencing 1 January 2018.
January 2018	Full implementation of eCDS	Low (<i>With paper CDS phased out, operational costs should now be lower. However, there may still be development costs in this first full year of implementation as further necessary enhancements are identified</i>)	Paper-based system is no longer in use (except for emergencies). All Members, CNMs & OSECs are using the eCDS.

¹⁷ An eCDS requires more detailed specifications than a paper-based CDS. In order to prepare this paper, the Secretariat has held numerous internal meetings to discuss processes and high level specifications for an eCDS. Based on our experience, we feel that at least 5 days will be required for an eCDS workshop to adequately consider and agree on the design and specifications for the eCDS.