**Note:** In what follows, we assume that there is a single data store that houses relevant CJIS Hawaii and LOTC data. This data store will live in a database environment called “Elliot”. For lack of a better term, in this document, we will call this the Rapback Data Store. Further, we assume that HIJIS will interact with this data store via an adapter that, in this document, we call the Rapback Interface Adapter.

**Note:** In this document, we use the following terms with the following definitions:

* Submission: the act of performing an in-state and Federal background check (and the data associated with this act)
* Initial result: the set of data returned in response to a background check request; this includes identification information (L-SID and FBI#) as well as the rap sheet, if any
* Rapback result: a notification sent by state and Federal systems when a subsequent arrest occurs

**Subscription Flow – Civil Process**

1. Employer (or designated provider/vendor) fingerprints applicant via Livescan device.
2. Livescan device submits fingerprints to LOTC, which performs the identification, and also submits the identification request to the FBI via Morpho FDR.
3. LOTC submits the two submissions (the one submitted to LOTC by the livescan, and the one that LOTC submits to the FBI) to a web service on the HIJIS broker. This web service has yet to be specified, but the preference (and HIJIS architecture conformance) is for the NIST structure/data to be an MTOM attachment to the SOAP message, with any metadata in the body of the SOAP message. (It is assumed that the metadata will include some kind of transaction ID that allows subsequent results to link back to these submissions.) The web service on the HIJIS broker will be implemented by an intermediary that forwards the submissions on to the Rapback Results Storage Adapter for persistence in the Rapback Data Store.
4. When LOTC receives the results back from the FBI, and/or obtains the identification/rapsheet from CJIS-Hawaii, it will submit each result to a web service on the HIJIS broker. This web service has yet to be specified, but the preference (and HIJIS architecture conformance) is for the text of the response to be an MTOM attachment to the SOAP message, with any metadata in the body of the SOAP message. The web service on the HIJIS broker will be implemented by an intermediary that forwards the results on to the Rapback Results Storage Adapter for persistence in the Rapback Data Store.

At a later time (typically a few hours to a few days):

1. Employer logs into the HIJIS Portal. HIJIS Portal identifies the user as a representative of an employer, and shows a limited interface (not what a criminal justice HIJIS user sees). Note: HIJIS obtains user information from their SAML assertion (already part of the portal, but note will require employer organizations to have IDPs). The State IdP that Bryan is developing should handle the SAML assertions but will only work once those state agencies are migrated over to the consolidated Active Directory and additional attributes are added, if needed (OCA, off the top of my head).
2. The user is presented with a screen (probably the default) that lists, in a table, all past initial results received in response to background checks conducted by the user’s organization.
   1. HIJIS[[1]](#footnote-1) will populate this table by invoking a query on the Rapback Interface Adapter to fetch all past initial results
   2. For each initial result in the table, HIJIS will display the current “state” of that result:
      1. Archived
      2. Available for subscription
      3. Subscribed (result is subscribed for subsequent rapback notifications)
      4. Rapback notifications received (result has received rapback subscriptions)
   3. The archived, available for subscription, and subscribed states are mutually exclusive, and results in any of those three states can also have “rapback notifications received”.
   4. The table will support filtering and/or sorting the initial results in the list by the various states listed above. So, a user can choose to see just the subscribed ones, or just the ones with rapback results, or all except archived, etc.
   5. The table will display, for each initial result in the list, basic information about the applicant (TBD) and associated subscription (if any).
   6. Nice to have feature (but not essential): Allow agency and/or individual user to choose a default filtering scheme that is applied when they first come into the portal.
3. Based upon the state of each initial result in the list, the following actions and rules will apply:
   1. For **all states**, a link or button or icon will allow the user to display the most recent rap sheets[[2]](#footnote-2) (one is the HI rapsheet, the other is the FBI Identity History Summary) as well as the initial results[[3]](#footnote-3). When the user clicks this button, HIJIS will do a query on the Rapback Interface Adapter that retrieves the text results, and will display them. (No formatting, and the results will not be XML…just human-readable text).
   2. For initial results that are **not in the subscribed state**, a button will allow the user to create a subscription (that is, place it in the **subscribed state**).
   3. For initial results that are in the **rapback notifications received state**, a button or icon or link will allow the user to display those notifications. (See notification flow for detail.)
   4. For initial results that are in the **subscribed state**, a button will allow the user to validate[[4]](#footnote-4) the subscription. The validation button should only be enabled within two months (a configurable parameter) of the validation due date. (Note that the HIJIS term “validation due date” is equivalent to the FBI “end date”). When the user validates the subscription, the EBTS Gateway will send the appropriate transaction to the FBI to extend out the end date of Hawaii’s subscription for that SID/category, but only if there are no other state subscriptions with a later end date for that SID/category.) HIJIS will also update the “last validated date” in the HIJIS subscription database.
   5. For initial results that are in the **subscribed state**, a button will allow the user to unsubscribe the subscription (that is, put it back in the **available for subscription** **state**). When the user unsubscribes, HIJIS should inactivate the HIJIS subscription (thus preventing subsequent notifications), but should not send the unsubscribe transaction to the FBI for a HIJIS-wide but configurable period (initially, we think this will be ten days). After that period passes, then the unsubscribe transaction is sent to the FBI (assuming the other unsubscribe rules apply…see below).
   6. For initial results that are in the **available for subscription** **state**, a button will allow the user to place the result in the **archived** **state**.
   7. There will be a number of days, called the “idle period”, that is configurable HIJIS-wide (that is, there is one value for this number that applies to the entire rapback program, not individual employers or users). The value of this number is expected to be 60 initially, but could change (thus it needs to be configurable). After an initial result has been in the **available for subscription** state for the duration of the idle period, HIJIS will automatically place it in the **archived** **state**.
4. The user will be able to filter (search) the table by subject last name and OTN. (This should work just like filtering, and should be additive to any other filter already applied.)
5. If the user creates a subscription for an initial result (i.e., moves it from the **available for subscription state** to the **subscribed state**), HIJIS will:
   1. Query the Rapback Interface Adapter to get information from the original submission necessary to create the subscription. (The information thus queried by the adapter will have been populated by a combination of LOTC and CJIS Hawaii.)
   2. Based on the agency profile, determine if the agency is eligible for Federal and State Rapback or just State Rapback
   3. Determine if an existing subscription for that SID exists in the specified category. If one does exist, then instead of creating a new subscription with the FBI, HIJIS will modify the existing one to adjust the end date (if the new subscription will end later than the existing one). If one does not exist, or one exists and is inactive (i.e., it passed its validation due date and the grace period), then HIJIS creates a new subscription at the FBI (and HCJDC will charge the user a fee). HIJIS communications with the FBI will occur via the new “EBTS Gateway”. Note that the grace period for the state will be equal to or less than the grace period for FBI subscriptions (currently believed to be 10 days).
   4. When creating a subscription at the FBI, and corresponding entries in the HIJIS subscription database, HIJIS will look up in the user’s/agency’s Rap Back profile to get any information needed. We know this will include the email addresses to be notified, but this could include other info we don’t know about right now.
   5. Also, when creating a subscription at the FBI, HIJIS will invoke the Rapback Interface Adapter to obtain the fingerprint data[[5]](#footnote-5) and other information needed to form the subscription request EBTS transaction.
   6. Receive back from the FBI an acknowledgement of creation of the subscription, which contains a subscription identifier. HIJIS will store this in the subscription database for future communication with the FBI and to recognize later notifications for that subscription. Along with the identifier, HIJIS will store whatever other information is necessary to facilitate subsequent notifications and subscription processing (TBD). HIJIS communications with the FBI will occur via the new “EBTS Gateway[[6]](#footnote-6)”.
   7. Subscription acknowledgement from the FBI also includes an updated Identity History Summary. HIJIS will send this to the Rapback Results Storage Adapter for persistence in the Rapback Data Store. At the same time, HIJIS will need to query the Rapback Interface Adapter (or maybe the existing HIJIS Query adapter) to obtain the Hawaii rap sheet, and also send that to the Rapback Results Storage Adapter for persistence in the Rapback Data Store.
   8. If an error comes back from the FBI, it will go into some sort of queue and an email will go to an administrator to investigate (details TBD[[7]](#footnote-7)).
6. If the user unsubscribes an existing subscription (that is, moves it from the **subscribed state** to the **available for subscription state[[8]](#footnote-8)**), HIJIS will determine if any other subscriptions exist in that subscription’s category for the L-SID/UCN (i.e., that applicant). If another subscription exists, HIJIS will modify the subscription with the FBI to reduce the end date (if the subscription being unsubscribed had a later end date than the surviving one). HIJIS will keep track (in the local subscription database) of all the employer organizations with subscriptions and their various end dates.
7. Note that, all of the above notwithstanding, there will be some initial results that are displayed in the list, but are never available for subscription. Initially, this will be for firearm permit applicants, but there could be others in the future. For these initial results, the subscribe button will be unavailable.

**Subscription Flow – Criminal Process**

The subscription flow for criminal justice subscriptions will follow the same steps, with the same rules, as the civil process, with the following exceptions:

* Criminal Justice subscribers will start at a screen that looks like the current HIJIS Manual Subscription search results screen. That is, what they’ll see is a list of their current subscriptions, and a screen that allows them to subscribe to a new subject by SID. Criminal Justice users will not see a list of “initial results” that are “available for subscription”.
* In step 9a in the civil process, HIJIS will obtain data from the criminal history record, not the original submission, in order to create the FBI subscription. There are no “original submissions” for CJ subscriptions.
* In step 9b, there is currently no plan for HCJDC to charge fees for CJ subscriptions.

**Notification Flow – Criminal Process**

1. Arrest occurs. FBI sends a notification to the EBTS Gateway. Gateway Adapter sends an event reporting message to a service on the HIJIS Broker. The message contains the FBI Subscription Identifier as well as the details of the arrest.
2. HIJIS Broker formats the message as a notification message and sends it to the Notification Intermediary.
3. If this is a Hawaii arrest, then do nothing. Notifications will occur via the current process triggered from Greenbox.
4. If not a Hawaii arrest, then notify subscribers via existing process. The Notification Intermediary will retrieve subscriptions by the FBI Subscription Identifier, and then send them out to the subscribed email addresses. The intermediary will not send notifications for subscriptions that are currently inactive or invalid (i.e., the event date is outside of the subscription’s valid period.)
5. The HIJIS Broker will also provide a web service that LOTC will call to report the arrest (by SID). This service will send back a simple acknowledgement (synchronously). In the future, the Greenbox-triggered notification will be replaced by this web service, which will query greenbox to get the full set of arrest info to send in the notification.

**Notification Flow – Civil Process**

1. Arrest occurs. FBI sends a notification to the EBTS Gateway. Gateway Adapter sends an event reporting message to a service on the HIJIS Broker. The message contains the FBI Subscription Identifier as well as the details of the arrest.
2. The service on the broker receives the message and determines if it is a Hawaii arrest.
   1. If it is a Hawaii arrest, then HIJIS will do nothing with the FBI result. Instead, the current Arrest Reporting Service (that receives messages from Greenbox) will determine what civil rap back subscriptions exist for the SID. (It will do this by querying the subscription database, via an adapter). For each matching civil subscription, it will invoke the Rapback Results Storage Adapter, which will store the results for later retrieval.
   2. If it is a non-Hawaii arrest, then HIJIS will extract the FBI Subscription Identifier from the incoming message and determine what civil rap back subscriptions exist for that FBI Subscription Identifier. (It will do this by querying the subscription database, via an adapter). For each matching civil subscription, it will invoke the Rapback Results Storage Adapter, which will store the results for later retrieval.
3. The service on the broker then sends a notification message to the Notification Intermediary for each matching subscription. The Notification Intermediary then emails each subscriber. The email[[9]](#footnote-9) contains very limited information…pretty much, only that results exist for one of that user’s civil rap back subscriptions, and perhaps a link to the appropriate page in the portal, and maybe mention of the initial result ID or some other way to identify the specific initial result once the user logs into the portal.
4. The user logs into the HIJIS portal and is taken to the civil background check result screen (mentioned in the subscription flow description, above). The user likely filters to see only those initial results that have rap back results. (Perhaps the user is also allowed to sort by descending date of when results were received…so he/she sees the most recent ones first…)
5. The user finds the initial result associated with the notification, and clicks on the icon/button to display the rap back result. As I understand it, this requires that the user first acknowledge, via clicking a dialog, that he/she is still authorized to see rap back results for this applicant. Presumably, if the user clicks “no” on this acknowledgement, we should not only decline to show the results, but we should inactivate the subscription (after warning the user that we will do so, and gain their acknowledgement.

1. In this document, we are using the term “HIJIS” generically, without specifying where in the HIJIS architecture the behavior will occur, unless it is important to the discussion to specify. [↑](#footnote-ref-1)
2. We say “the most recent” because every time this subject is subscribed, the FBI sends an updated HIS that needs to be stored, and CJIS Hawaii also creates an updated rap sheet that also needs to be stored. But the user will only be able to see the most recent one that occurred during a period in which that user’s subscription was active. [↑](#footnote-ref-2)
3. If the user never subscribes, then all they will see is just the initial results rap sheet, even if another agency subsequently does subscribe to that applicant and gets subsequent results. [↑](#footnote-ref-3)
4. Since we are lifetime, we would never use a Renew transaction (EBTS RB Maintenance Submission), as "Renew" invokes fees. Unless, the validation date passes and the agency actually does want to renew (and repay) the subscription. Per the FBI P&I guide, "lifetime" only means they have to pay the fee once, as long as the subscripted is validated timely. It does not mean that the subscription remains active for life. The end date or the term that the FBI has on file is the validation date. If the validation date passes and we don't send an update to the FBI to extend the date, the FBI will automatically remove the subscription. The absolute max a date can be set is five years out. [↑](#footnote-ref-4)
5. HCJDC to provide details of EBTS / fingerprint spec, including samples, etc., as well as how the data will be stored by LOTC. [↑](#footnote-ref-5)
6. The Morpho FDR converts NIST files to match fed specs, the EBTS Gateway will need to do the same. [↑](#footnote-ref-6)
7. HCJDC will define how this is to work, in the near future. [↑](#footnote-ref-7)
8. In the case of criminal subscriptions, it just goes to unsubscribed [↑](#footnote-ref-8)
9. HCJDC to define what the email looks like and contains, in the near future. [↑](#footnote-ref-9)