

PROVINCIAL PRACTITIONER CREDENTIALING AND PRIVILEGING (C&P) SYSTEM

TRACE DOCUMENT -

Follow up to [Physician Feedback on Re/Appointments in AppCentral \(Cactus Software\)](#)

JANUARY 2018

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FOR FEEDBACK OR MORE INFORMATION:

-  Read about the provincial C&P system at www.bcmqi.ca
-  Email support@bcmqi.ca
-  Phone BC MQI at 604-829-2604

PURPOSE

This trace document is an update on the issues and recommendations presented in the BC Medical Quality Initiative office's report of physician feedback on re/appointments in AppCentral (2016).

In 2016, British Columbia's health authorities and affiliates introduced a new online system for credentialing and privileging, also known as Cactus software. The launch was the result of years of work by seven participating organizations¹ and a project team that was in place until April 2016. At that time, BC MQI assumed responsibility to sustain the system. Ongoing work includes deploying additional software modules and managing system and process improvements.

The credentialing and privileging (C&P) system and related common business processes are the foundation for a single information system, as recommended in the 2011 Cochrane report.² The system provides a shared platform and - a single source of truth - for the credentialing and privileging of practitioners affiliated with a health authority in BC. By reducing critical information gaps, the C&P system can support improved patient safety across the province.

By April 2016, six BC health organizations had completed reappointment cycles in the new C&P system. Over three months, BC MQI then undertook to gather and collate physician feedback on the user experience in AppCentral. AppCentral is the Cactus software module that health authority medical staffs now use to complete their appointment and reappointment applications online.

- A priority action plan was developed based on physician feedback about year one in AppCentral. The original outcome report is available online at bcmqi.ca (under *Resources and reports*): bcmqi.ca/Documents/Resources/AppCentral_PhysicianFeedback-Report_201608_Final.pdf

APPROACH TO UPDATING THE REPORT

The original outcome report (2016) shared two types of physician input: *User Issues* and *Focus Group Recommendations*.

USER ISSUES

The most prominent issues identified in AppCentral user feedback were organized into seven categories, which are listed in the trace table (pp. 5-11). The trace table shows the original feedback summary and proposed responses, along with updates as at January 2018. Please note that the trace table shows only the steps taken or supported by the BC MQI office; it does not detail work that may have been done by individual health organizations.

¹ Participating BC health authorities and organizations include Fraser Health, Interior Health, Island Health, Northern Health, Providence Health Care, Provincial Health Services Authority and Vancouver Coastal Health.

² The Cochrane *Investigation into Medical Imaging, Credentialing and Quality Assurance Phase 2 Report* is available at: <http://www.health.gov.bc.ca/library/publications/year/2011/cochrane-phase2-report.pdf>

PHYSICIAN FOCUS GROUP RECOMMENDATIONS

A set of four ‘big picture’ recommendations were developed in a 2016 focus group discussion with physicians, the BC MQI office, and representatives from participating health organizations.

- *Organize physician data as if on a virtual bookshelf* so that each physician or health organization can draw what they need.
- *Sort requirements into provincial and local streams* to reduce annual data requirements. Determine which information can be collected once and shared (at a provincial level), versus information that should be collected as needed by each health organization.
- *Share and standardize across the province* to streamline requirements for documentation and education modules across the BC health organizations.
- *Leverage the provincial platform with physician consent to share data* with non-hospital entities, where this can help to reduce duplication of processes.

These recommendations are incorporated into the trace table to some extent (see *Sections 4.0 and 7.0*). More importantly, they have helped inform the vision for the desired future state of the C&P system.

Notable steps toward this vision include, for example:

July 2017

Direct input from BC physicians on AppCentral to the vendor (sympplr): BC MQI convened an online session with the software vendor and 11 physicians from across BC to discuss the concept of a *provider portal* that could offer the characteristics of a “virtual bookshelf.” This input was provided toward development of the next iteration of AppCentral software.

August 2017

Demonstration on AppCentral for BCMQI and a physician representative: As part of an annual session with the vendor, BC MQI coordinated a demonstration of future plans for AppCentral, with remote attendance by a PHSA physician—a participant in the original 2016 focus group on the user experience.

**January 2018
(in progress)**

Feasibility study to optimize the system: At the request of the health authorities, the BC MQI office is currently studying the feasibility of options to improve and streamline the C&P system. The study will support decision-making on the direction and priorities for system improvements, including the physician recommendations.

**Spring 2018
(in progress)**

Leveraging Cactus for physicians also applying to non-hospital facilities: In collaboration with the College of Physicians and Surgeons of BC, the BC MQI office and Quality Assurance working group have established a process that will allow physicians to request a report for use in applications to Non-Hospital Medical and Surgical Facilities. The report will be drawn from the Cactus database by BC MQI, at the physician’s request. The process will save physician time in completing non-hospital applications by reducing duplication. Availability of this service is anticipated for spring 2018.

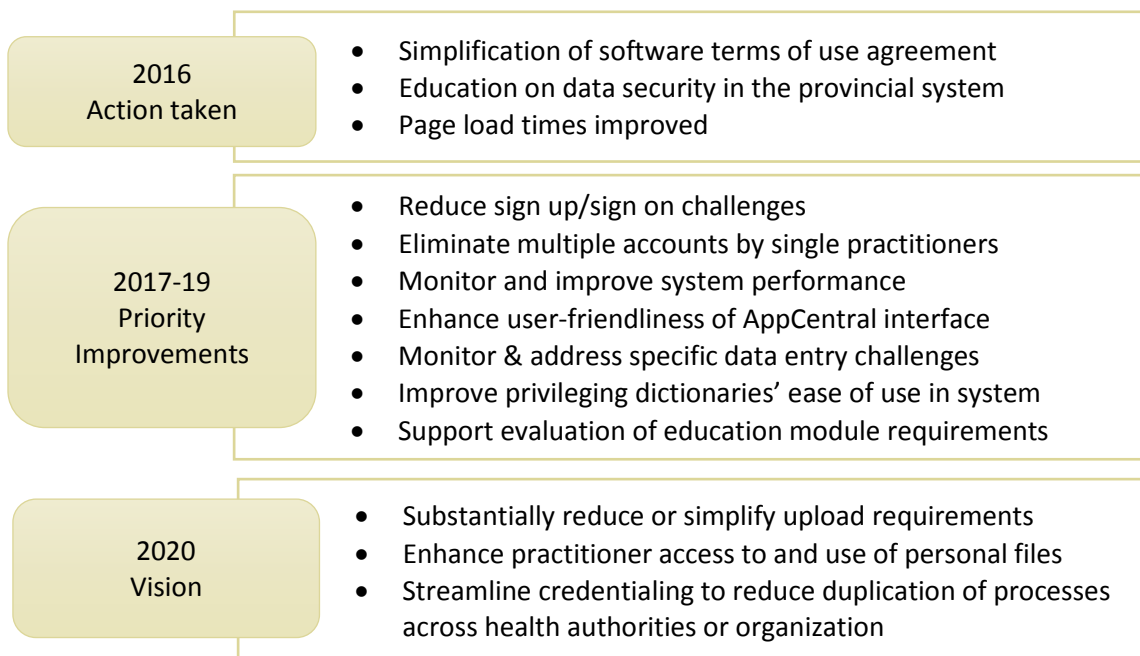
WHAT'S NEXT?

BC MQI will continue working with the software vendor and participating health organizations to assess the feasibility, impact and cost of proposed solutions—and implement these where possible.

It is worth noting that the software selected by the province for the C&P system is a commercial-off-the-shelf product. This means that changes to “customize” the product must be assessed by the vendor. Even when feasible, customizations can be costly and time-consuming.

As a result, changes that are vendor-dependent must be prioritized across all system needs and may be longer-term projects. For example, in 2017 significant resources were directed toward an upgrade of Visual Cactus, to support system-wide functioning and back-end operations. Meanwhile, a new iteration of AppCentral software has been set back on the vendor’s roadmap. Though initially anticipated for 2019 reappointments, the next iteration of AppCentral is still in an early development stage. Updated release timelines for AppCentral (which will be rebranded as Application Manager) are still pending.

BC MQI and the system partners are actively working on process improvements that are not vendor-dependent. These include streamlined business processes and improved coordination. The targets presented in the original 2016 outcome report remain in place, as BC MQI works toward a vision for a refined, seamless provincial system by 2020.



TRACE TABLE- APPCENTRAL USER ISSUES AND RECOMMENDED ACTIONS

Each AppCentral user issue yet to be addressed is linked to a recommended action and assigned to a tracking owner/list:

Working Group	The group assigned to pursue improvements and develop recommendations in consultation with stakeholders.
Action Items – “A”	The proposed response is an identified action item assigned to BC MQI.
Enhancement List – “ER”	The proposed response is identified as a software enhancement request. BC MQI and HAs to evaluate enhancement requests for feasibility, impact and cost.

User Issue	Recommended Action Updated January 2018	Issue Tracking Updated Jan.2018
1.0 ACCOUNT CREATION AND AUTHENTICATION		
<p>1.1 Failed authentication</p> <p>Some practitioners could not open their re/appointment process due to failed verification resulting from a wrong/missing CACTUS ID or birthdate.</p>	<p>The fix requires support to practitioners at the time the failure occurs.</p> <ul style="list-style-type: none"> Practitioners with a missing/incorrect CACTUS ID must contact their HA No ongoing system fix is required: If an incorrect birthdate is/was migrated into CACTUS, a one-time correction must be made by their HA. Once corrected, the practitioner will not experience this failure again. 	<p>Action taken (ongoing): HA Credentialing Staff</p> <p>No actions outstanding.</p>
<p>1.2 Email invitation to access AppCentral can be hard to manage.</p> <p>Some practitioners did not receive or could not find the email invitation to create an account or access a re/appointment process in AppCentral.</p> <ul style="list-style-type: none"> The ‘no-reply’ email address may contribute to emails landing in a junk folder or being deleted by practitioners Practitioners may confuse College IDs and CACTUS or AppCentral IDs The volume of emails from AppCentral can make it difficult to locate the specific invitation (i.e. reminder emails or accepted /rejected document notifications). 	<p>Work with CACTUS + health authorities to improve the invitation process.</p> <ul style="list-style-type: none"> Action taken –completed. A-014. Investigate feasibility to reduce or turn off reminder emails Action pursued, not feasible A-044. Investigate feasibility to turn off or suppress ‘accepted’ emails to practitioners - sent every time Med Affairs accepts a document. (ER-180) Action taken –completed AppCentral ID vs. CACTUS ID use is explained in the AppCentral quick user guide. Assess other locations for tips. Action taken –completed. Improve instructions on password resets to help users understand that the provided email link must be used to reset an account password. Outstanding. A-012. Investigate sending invitation emails from Med Affairs emails, instead of the "no-reply" email (ER-166) Outstanding. A-013. Investigate changing the ‘from’ address of ‘no-reply’ emails to an identifiable address (ER-166). 	<p>Action taken - completed: A-014. Reminder emails cannot be turned off–HA decision reached to reduce frequency to every 3 weeks</p> <p>Action pursued, not feasible: A-044 (ER-180): Document notification emails cannot be suppressed or turned off.</p> <p>Action taken: User guides posted to bcmqi.ca to explain AppCentral vs. Cactus IDs, and password resets.</p> <p>Outstanding ER-166 (A-012 and A-013)</p>

User Issue	Recommended Action Updated January 2018	Issue Tracking Updated Jan.2018
<p>Update on AppCentral account access in year two (2017): Access for reappointments in year two led to issues for some practitioners who could not recall personal/security information they'd provided in their account set up.</p>	<ul style="list-style-type: none"> Action taken –ongoing. BC MQI is working with the vendor to improve user ID and password reset processes while maintaining the security requirements set out by the Security Working Group. Improvements being sought include: <ul style="list-style-type: none"> - a wider set of challenge questions to select from in account set up - ability to update challenge questions within AppCentral after set up 	<p>Action taken –ongoing: BC MQI working with vendor (symplr) to improve options for users in set up and reset of security questions.</p> <p>Working Group: BC MQI</p>
<p>1.3 Practitioners appointed at more than one health authority receive unique invitation emails/links from each HA, causing some to create more than one AppCentral account. Since information is not shared across accounts (even for the same individual), practitioners who create multiple AppCentral accounts do not have all their data in one location.</p>	<p>There is no back end ability to combine multiple accounts for a practitioner, so the focus is on communications solutions:</p> <ul style="list-style-type: none"> Action taken –completed. BC MQI to identify practitioners who have created multiple accounts and work with HAs to contact them Action taken –completed. BC MQI to provide HAs with messaging to include with reappointment communications: <i>“1 practitioner=1 AppCentral account”</i> 	<p>Actions taken BC MQI provided HAs with standard messaging for practitioners on holding a single account. For year two (2017) reappointments in AppCentral, BC MQI provided HAs with a list of practitioners with multiple accounts, to support HAs in individual outreach to resolve this on a case-by-case basis.</p> <p>No actions outstanding.</p>
<p>2.0 TERMS OF USE AGREEMENT AND DATA STORAGE</p>		
<p>2.1 Practitioners voiced concerns about the original terms of use agreement for creating a CACTUS account. The implications of the agreement were not clear and the language used appeared to give CACTUS rights to the data in AppCentral or the provincial system. Also, practitioners did not have a access to the terms of use after the initial account set-up was completed.</p>	<p>At no time has the vendor CACTUS had rights or access to the data in the provincial system. To advise and assure practitioners of this fact:</p> <ul style="list-style-type: none"> Action taken - 3 March 2016. A revised “terms of use” was deployed and is effective retroactively for all provincial system users. Legal experts reviewed and streamlined the terms to improve clarity and to better reflect the Security Access Model in place. Action pursued, not feasible A-048. Investigate the feasibility of creating a link to the terms of use within AppCentral (but outside the account set-up). (ER-182) 	<p>Action taken - 3 March 2016</p> <p>Action pursued, not feasible ER-182 (A-048): The recommended customization would impact core software code. Instead, the revised terms of use are available at bcmqi.ca: CACTUS Software - AppCentral Terms of Use Agreement for BC</p> <p>No actions outstanding.</p>

User Issue	Recommended Action Updated January 2018	Issue Tracking Updated Jan.2018
<p>2.2 Practitioners voiced concerns about the security of their data in AppCentral, in view of the fact that the software vendor (CACTUS) is Kansas-based.</p>	<p>Action taken –completed: Ensure that information on the security model is shared and available to practitioners:</p> <ul style="list-style-type: none"> Although CACTUS is based in Kansas, the BC system is housed on servers in the Kamloops Data Centre. No data leaves Canada, nor is data to be accessed by the vendor in the United States, except when escorted by BC MQI and then only for the purpose of required system maintenance. 	<p>Action taken –completed: Security info is posted to bcmqi.ca and is available through health authority credentialing offices.</p> <p>No actions outstanding.</p>
<p>3.0 SYSTEM PERFORMANCE</p>		
<p>3.1 Time outs For security purposes, the system logs a person out of AppCentral if the session is inactive for 20 minutes.</p> <ul style="list-style-type: none"> The system does not provide a time-out notification, causing practitioners to be surprised by time-outs and unsure if data was saved or lost. 	<p>BC MQI to consult with CACTUS on feasibility of adding a time-out warning or pop-up. Messaging could include instructions on how to save if action is required. Also to investigate: possible auto-save improvements.</p> <ul style="list-style-type: none"> Action pursued, not feasible. A-047 Investigate feasibility to add a SAVE button with instructions (ER-181) 	<p>Action pursued, not feasible: ER-181 (A-047): The recommended customization is not feasible in current software. BC MQI to pursue improvements in a future iteration of AppCentral (<i>not anticipated for 2018</i>).</p> <p>Working Group: BC MQI</p>
<p>3.2 Slow-loading pages While moving through the application process, some practitioners noted that pages loaded slowly.</p>	<ul style="list-style-type: none"> Action taken – April and August 2016. During initial rollout, the system became overloaded by the volume of users and queued jobs. System optimizations in April (additional sites form) and August (dictionary load issues) improved page-load times. Action taken –completed. A-004 and A-043 BC MQI to monitor this issue and to develop a template/script for HAs to use for manual time checks. 	<p>Action taken, 2016 – completed. System optimizations completed to help improve page-load times.</p> <p>Action taken, completed. A-004, A-043: Rather than continued monitoring by BC MQI, feedback to the vendor (symplr) prompted them to update software code in order to improve performance of movement from page to page.</p> <p>No actions outstanding.</p>

User Issue	Recommended Action Updated January 2018	Issue Tracking Updated Jan.2018
4.0 SYSTEM NAVIGATION		
<p>4.1 AppCentral interface is not intuitive; process can be confusing to navigate</p> <p>Practitioners encountered problems where there were not clear prompts or other design cues to help guide them through the process. Examples include:</p> <ul style="list-style-type: none"> • Not knowing how/where to access instructions • Unsure how to return to other parts of the process • Lack of clarity on attachment requirements- <i>see Section 5.1</i> 	<ul style="list-style-type: none"> • Action pursued, not feasible. A-025. Investigate how AppCentral navigation bar may be made more user friendly / intuitive (ER-063) • Action pursued, not feasible. Investigate feasibility to add “breadcrumbs” to ease navigation path back through the process • Action pursued, not feasible. Embed instructions in the application process (like “help” function in other programs). Another approach would be a (?) hover icon on each input field or a step-by-step wizard. 	<p>Action pursued, not feasible: ER-063 (A-025) + other recommended customizations are not feasible in the current software.</p> <p>July 2017: BC MQI convened a group of 11 physicians to provide feedback to the vendor (symplr) toward improvements in a future iteration of AppCentral (<i>not anticipated for 2018</i>).</p> <p>Working Group: BC MQI</p>
5.0 DATA ENTRY AND ATTACHMENTS		
<p>5.1 Identifying required attachments</p> <p>Practitioners did not have/access a list of documents required (type and format) until after starting the online process. As a result, the process could be drawn out by unnecessary back-and-forth as they sought to locate and prepare documents.</p>	<p>Practitioners need clear and timely information on the attachments required so that they can prepare appropriately.</p> <p>Although HAs may have created and sent lists of required attachments in 2016, practitioners did not always know how or where to access these lists.</p> <ul style="list-style-type: none"> • Action taken –ongoing: HAs to provide a list of document requirements in the initial invitation link or at another appropriate starting point. • Action taken –completed: BC MQI will also post to website in AppCentral FAQs: <i>What will I need to complete this application?</i> 	<p>Action taken (ongoing): HA credentialing offices each have unique attachment checklists which they provide medical staff</p> <p>Action taken –completed: FAQs posted to bcmqi.ca on what is needed to access AppCentral, along with a “Get Started” user guide.</p> <p>No actions outstanding.</p>
<p>5.2 Uploading attachments</p> <p>Practitioners providing feedback on AppCentral frequently noted challenges related to uploading attachments, such as:</p> <ul style="list-style-type: none"> • Confusion on where to attach documents 	<p>As in 2016, HA support staff can assist with attachments where there may be a technology or document format issue.</p> <p>Action taken – Feb.2016: An <i>attachment form</i> was added to provide one site where documents could be uploaded.</p> <p>Action taken –ongoing: BC MQI is consulting with HAs on opportunities to</p>	<p>Action taken 2016: Attachment form provides one document upload site</p> <p>Action taken –ongoing: A-005 and A-021: BC MQI is currently preparing a feasibility study for the</p>

User Issue	Recommended Action Updated January 2018	Issue Tracking Updated Jan.2018
<ul style="list-style-type: none"> Lack of warning/ indication that the application was incomplete, resulting in returned applications due to missing uploads 	<p>streamline requirements.</p> <ul style="list-style-type: none"> A-005. Review the list of mandatory attachments across HAs. A-021. Review documentation requirements for CME and CPD <p>Outstanding: To improve clarity on the required attachments, and provide in-system support BC MQI is also exploring the feasibility:</p> <ul style="list-style-type: none"> ER-165. Investigate adding button/tab to indicate attachment requirements for each section (A-003) ER-174. Investigate adding a pop up to confirm “Are you sure” before submitting to medical affairs (A-036) ER-175. Investigate adding a “recall” button for practitioners, to be effective when credentialers have not yet accessed the process (A-037) 	<p>Ministry and health authorities on options to optimize the provincial C&P system, including review of all attachment requirements.</p> <p>Action taken –health authorities: Four HAs (Interior Health, Providence, PHSA and Vancouver Coastal) have eliminated or reduced their attached documentation requirements.</p> <p>Outstanding: ER-165 (A-003) ER-174 (A-036) ER-175 (A-037)</p>
<p>5.3 Data entry</p> <p>The format of the re/appointment form in AppCentral, while consistent with earlier paper copies, can be lengthy to navigate and mandatory fields may not always be clearly indicated.</p>	<p>BC MQI to work with HAs to improve ease of data entry into re/appointment form:</p> <ul style="list-style-type: none"> Action taken –completed. A-40 Revisit the list and formats of mandatory fields in the reappointment application form to improve clarity for practitioners (ER-177 –<i>this was previously shown as ER 137</i>) Action taken –completed. Assess date fields in AppCentral for formats & option to auto-populate for today’s date where suitable (ER-060) Action taken –ongoing. Investigate how to improve clarity of Signature and date fields where a signature is required (ER-070) 	<p>Action taken –completed. ER-177 (A-40): Revisions provided improved flow and compressed the re/appointment form, which was reduced from 14 pages to 8 pages.</p> <p>Action taken –completed. ER-060:Date auto-populate has been implemented</p> <p>Action taken –ongoing. ER-070: A system change was made in May 2017 to address signature issues. BC MQI is monitoring this issue to determine if the fix was successful.</p> <p>Working Group: BC MQI</p>

User Issue	Recommended Action Updated January 2018	Issue Tracking Updated Jan.2018
6.0 PRIVILEGING DICTIONARIES - EASE OF USE		
<p>6.1 Navigation of the more complex dictionaries can be difficult</p> <p>While some dictionaries were reportedly fairly easy to use (i.e. plastic surgery), others are larger and more complex to navigate (i.e. family practice).</p>	<p>BC MQI to seek means to improve the dictionaries' ease of use in AppCentral:</p> <ul style="list-style-type: none"> • Action taken –completed: Add page numbers to the dictionaries in AppCentral, to support navigation. • Action taken –completed: Add “dictionary” to labels for improved clarity (ER-169) • Action taken –completed: Seek to resolve confusion that may arise between “Admitting” and “Refer and Follow” privileges • Action taken –ongoing: A-030 Seek to improve the dictionaries' ease of use in AppCentral. • Action taken –ongoing: Add a summary page to quickly show which privileges have been selected (ER-170) 	<p>Action taken, 2016 –completed: Pagination was added to dictionaries.</p> <p>Action taken –completed: ER-169 Dictionary was added to labels</p> <p>Action taken –completed: After consultation with a panel of GPs, BC MQI's QA governance group chose to retain both 'admit' and 'refer and follow' privileges but with clarification of the latter to be embedded in the family practice dictionary.</p> <p>Action taken –ongoing: A-030: As part of the 2016-19 refresh of the dictionaries, some physician panels have reorganized content to improve ease of use. Revised dictionaries will be implemented in 2018 /19. See also: http://bcmqi.ca/credentialing-privileging/dictionaries</p> <p>Action taken –ongoing: ER-170 March 2017- BC MQI provided the vendor (symplr) with a report of recommendations to improve the privileging component of Cactus— including addition of summary page. Next steps are under discussion.</p> <p>Working Group: BC MQI, QA working group</p>

User Issue	Recommended Action Updated January 2018	Issue Tracking Updated Jan.2018
7.0 OVERALL PROCESS		
<p>7.1 Time to complete</p> <p>Overall, the application process could be quite time-consuming.</p> <ul style="list-style-type: none"> Reported length of time to complete 2016 processes ranged from 20 min-5 hrs In the case of lengthy processes, practitioners identified upload issues or may have included time taken to complete education modules. 	<p>Issues tracked elsewhere in this report may be factors in the overall time to complete. (See sections 3.0, 5.0 and 7.2)</p> <p>Practitioners should also find that time to complete is reduced after their initial process, due to the pre-population of data in their file.</p> <ul style="list-style-type: none"> In lieu of an automated method to benchmark times, BC MQI will rely on feedback from practitioners and HA credentialing offices to monitor the length of future processes. Where possible, BC MQI will try to distinguish time spent on an AppCentral application from time spent on Health Authority requirements such as education modules. 	<p>Update: Feedback in year two (2017) indicates that prepopulated applications have generally reduced the time required to complete reappointments.</p> <p>See also: sections 3.0, 5.0 and 7.2</p> <p>Working Group: BC MQI</p>
<p>7.2 Duplication of processes for cross-appointed practitioners</p> <p>Practitioners expected that information would be updated in real time and would automatically flow between health authorities. In fact, information submitted by a practitioner must be reviewed and accepted before the system is updated. This lag leads to duplicate data entry for cross-appointed practitioners who are engaged in more than one process in the same time period.</p>	<p>Two types of action can ameliorate the duplication issue:</p> <p><i>Actions to-</i> Reduce process requirements</p> <ul style="list-style-type: none"> See 5.2 for measures to streamline attachment requirements Investigate possibility to align education modules across HAs <p><i>Actions to-</i> Streamline to shared provincial process where possible</p> <ul style="list-style-type: none"> Coordinate the timing of re/appointment cycles across the province to minimize duplication Investigate models that would divide and streamline into a provincial level (shared, one process for all) as possible, and an HA-specific level (local, separate) as needed 	<p>Update: BC MQI is currently preparing a feasibility study for the Ministry and health authorities to support optimization of the provincial system.</p> <p>Action taken -VCH and PHC: Vancouver Coastal and Providence Health Care integrated to a single application process for practitioners.</p> <p>See also: The section 5.2 update on:</p> <ul style="list-style-type: none"> reduced attachment requirements proposals re: education modules <p>Working Group: BC MQI</p>
<p>7.3 Duplication of processes with other bodies or programs</p> <p>Practitioners note that some aspects of re/appointment are repeated for other organizations or processes.</p>	<p>BC MQI to seek opportunities for integration or leveraging of information to reduce overall burden on practitioners.</p> <ul style="list-style-type: none"> Action taken –completed: A License Monitor module added to the C&P system in January 2017 eliminated the need for license documentation. 	<p>Action taken – Eliminated College license documentation requirement.</p> <p>See also: the feasibility study in 7.2</p> <p>Working Group: BC MQI</p>