

PROVINCIAL PRACTITIONER CREDENTIALING AND PRIVILEGING (C&P) SYSTEM

OUTCOME REPORT -

Physician Feedback on Re/Appointments in AppCentral (Cactus Software)

AUGUST 2016


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PHYSICIAN FEEDBACK ON 2016 RE/APPOINTMENTS IN APPCENTRAL (CACTUS Software)

The development of a provincial credentialing and privileging (C&P) system has been a vast undertaking, requiring a committed group of partners. In 2012, a project team embarked on work with the seven BC health authorities/organizations¹ to harmonize the documents and processes of their credentialing offices, and build a single provincial information system for credentialing and privileging. Together they developed core provincial forms, merged 21 credentialing systems into a shared platform and achieved the 2016 launch of AppCentral module of the C&P system, also known as CACTUS.

The C&P system and related common business processes are the foundation of the single provincial information system recommended in the 2011 Cochrane reports. By enhancing coordination and communication, the new system provides a platform for a single source of truth on C&P information for practitioners affiliated with a health authority in BC. Critically, this platform aims to reduce information gaps and contribute to improved patient safety across the province.

Since April 2016, the provincial C&P system operations have transitioned from the project team to ongoing sustainment by the BC MQI office. BC MQI has sought and collated feedback on the user experience with AppCentral in year one to identify the priority improvements needed.

Data Sources

The summarized feedback includes direct input from more than 250 individual physicians and consolidated reports provided by working group members and 5 credentialing offices. Channels include:

Source	Collection period
Direct physician feedback to BC MQI (feedback form, email, phone)	January – May 2016
Consolidated practitioner feedback from 5 Health Authorities /Organizations	January – May 2016
An online physician survey on AppCentral, distributed by BC MQI	May 2016
A physician focus group on the 2016 AppCentral experience	June 8, 2016

All data was reviewed to identify the type and frequency of issues that practitioners identified. Recurring issues were sorted into categories to direct focus on the most prominent issues encountered during 2016 re/appointments in AppCentral.

While usability issues may impact any practitioner engaged in a re/appointment, the feedback received did not reveal any issues specific to the experience of nurse practitioners, dental surgeons, or midwives.

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

User Issues

AppCentral user feedback paints a clear picture of the pain points for practitioners in the 2016 re/appointment process. The most prominent issues fall into seven categories:

ISSUE TYPE	SUMMARY
Account creation and verification	<ul style="list-style-type: none"> Challenges with sign up/on to the system Creation of multiple accounts by a single practitioner
Terms of use and data storage concerns	<ul style="list-style-type: none"> The original software “terms of use” gave rise to practitioner concerns on vendor access and rights to data Clarity sought on implications of U.S. based vendor (CACTUS) for practitioner data security
System performance issues	<ul style="list-style-type: none"> Automatic/unexpected time-outs led to instances of lost data Practitioners reported slow-loading pages
System navigation issues	<ul style="list-style-type: none"> User interface is not intuitive. Practitioners reported confusion on which actions were required and when.
Data entry and attachments	<ul style="list-style-type: none"> Volume of attachment requirements were confusing/onerous Uploading of attachments was confusing /onerous Practitioners identified specific instances where the required data fields were unclear
Privileging dictionary	<ul style="list-style-type: none"> Complex dictionaries are difficult to navigate in AppCentral
Overall process	<ul style="list-style-type: none"> The time to complete re/appointments could be lengthy Cross-appointed practitioners were required to duplicate processes at different health authorities Practitioners are frustrated by completing parallel processes at other provincial organizations

Physician Focus Group Recommendations

On June 8, five physicians participated in a focus group discussion on the 2016 AppCentral experience for practitioners. The purpose was to engage with BC MQI and health authority representatives in problem-solving on improvements needed, from the practitioner perspective.

The physicians discussed the collected user feedback, helping BC MQI to confirm the priority issues (as in the summary list above) and to develop possible solutions (as in the trace table below, pp. 5-10).

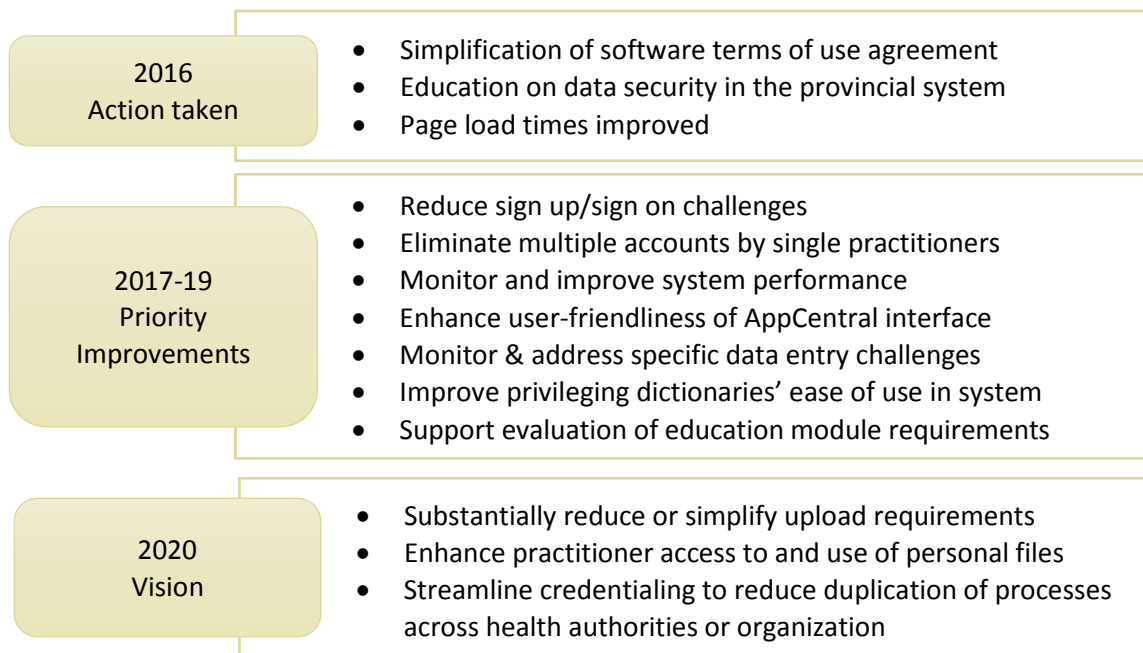
A distinct contribution of the physician focus group was to reflect on the ‘big picture’ and to envision the desired future state for the provincial credentialing and privileging system. With this in mind the physicians offered the following recommendations:

- *Organize physician data as if on a virtual bookshelf:* aim to organize individual physician information as if on a virtual bookshelf from which the physician and the provincial health organizations can each draw what they need.
- *Sort requirements into provincial and local streams:* reduce annual data requirements by determining which information can be collected once (at a provincial level) and shared, versus information that should be collected as needed by each health authority.
- *Share and standardize across the province:* Streamline and standardize the documentation, attachment and education module requirements of provincial health authorities.
- *Leverage the provincial platform with physician consent to share data:* where it can reduce duplication of processes, consider adding a checkbox for physicians to give permission for information to be shared with non-hospital authorities.

What's next?

The practitioner feedback synthesized in this report informs a plan for priority improvements to the AppCentral interface and related business processes. Each prominent user issue is now linked to a recommended action and assigned to an action list and/or working group (see the trace table, pp 5-10).

BC MQI is working with the software vendor and provincial health authorities to assess the feasibility, impact and cost of proposed solutions. Improvements or upgrades to the user interface are being pursued with the vendor (CACTUS)—including introduction of a new version of the AppCentral software that is anticipated for 2017. BC MQI is also working with all stakeholders to streamline business processes and improve coordination, with a vision for a refined, seamless provincial system by 2020.



APPCENTRAL USER ISSUES AND RECOMMENDED ACTIONS – Trace table

Each AppCentral user issue 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.
Action taken	Steps completed to address the issue.

User Issue	Recommended Action	Issue Tracking
1.0 ACCOUNT CREATION AND AUTHENTICATION		
<p>1.1 Failed authentication Some practitioners could not open their re/appointment process due to failed verification resulting from a wrong/missing CACTUS ID or birthdate.</p>	<p>In these cases the fix requires support to practitioners at the time the failure occurs.</p> <ul style="list-style-type: none"> Practitioners with an incorrect or missing CACTUS ID must contact their HA No ongoing system fix is required: If an incorrect birthdate is/was migrated into CACTUS, then 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>1.2 Email invitation to access AppCentral can be hard to manage. 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 and CACTUS IDs, or be unclear about the CACTUS / AppCentral IDS The volume of emails from AppCentral can make it difficult to locate the specific invitation (for example, reminder emails or accepted/rejected document notifications). 	<p>Work with CACTUS and health authorities to create a smoother invitation process.</p> <ul style="list-style-type: none"> A-012. Investigate sending invitation emails from Med Affair emails, instead of the "no-reply" email (ER-166) A-013. Investigate changing the ‘from’ address of ‘no-reply’ emails to an identifiable address (ER-166). Action taken – August 2016. A-014. Investigate feasibility to reduce or turn off reminder emails A-044. Investigate feasibility to turn off or suppress ‘accepted’ emails to practitioners - sent every time Med Affairs accepts a document. (ER-180) Use of AppCentral ID vs. CACTUS ID is explained in the AppCentral quick user guide. Assess other locations for tips: bcmqi.ca/mdocs-posts/how-to-create- 	<p>Action items: A-012, A-013, A-044</p> <p>Enhancement list: ER-166, ER-180</p> <p>Action taken Aug. 2016: A-014. Reminder emails cannot be turned off – HA decision reached to reduce frequency to every 3 weeks.</p> <p>Update A-044 (ER-180): Aug. 2016: Document notification emails cannot be suppressed or turned off. Investigate solutions in AppCentral UX for 2017.</p>

User Issue	Recommended Action	Issue Tracking
	<p>appcentral-account-quick-user-guide/</p> <ul style="list-style-type: none"> Improve instructions on password resets to help users understand that the provided email link must be used to reset an account password 	<p>Working Group: BC MQI and HA Credentialing Offices</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.</p> <p>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"> BC MQI to identify practitioners who have created multiple accounts and work with HAs to contact them BC MQI to provide HAs with messaging to include with reappointment communications: <i>"1 practitioner=1 AppCentral account"</i> 	<p>Working Group: BC MQI and HA Credentialing Offices</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.</p> <p>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. The revised CACTUS Software - AppCentral Terms of Use Agreement for BC are available at bcmqi.ca 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 Items: A-048</p> <p>Enhancement list: ER-182</p>
<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>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>	<p>Action taken – 3 March 2016</p>

User Issue	Recommended Action	Issue Tracking
	<ul style="list-style-type: none"> Action taken - 3 March 2016. Information on the Security Access Model in place was added to the AppCentral FAQs at bcmqi.ca and is available through the health authority credentialing offices. 	
3.0 SYSTEM PERFORMANCE		
<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. 	<ul style="list-style-type: none"> 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. A-047 Investigate feasibility to add a SAVE button with instructions (ER-181) 	<p>Working Group: BC MQI</p> <p>Action Items: A-047</p> <p>Enhancement list: ER-181</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. 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 – April and August 2016</p> <p>Action Items: A-004, A-043</p>
4.0 SYSTEM NAVIGATION		
<p>4.1 AppCentral interface is not intuitive; process can be confusing to navigate 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 (see 5.1) 	<ul style="list-style-type: none"> A-025. Investigate how AppCentral navigation bar may be made more user friendly / intuitive (ER-063) Investigate feasibility to add “breadcrumbs” to ease navigation path back through the process 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 items: A-025</p> <p>Enhancement list: ER-063</p> <p>4.1 Update (Aug.2016): These customizations are not feasible in the current software. Improvements should be sought with install of AppCentral UX in 2017</p>

User Issue	Recommended Action	Issue Tracking
5.0 DATA ENTRY AND ATTACHMENTS		
<p>5.1 Identifying required attachments 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 out 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"> HAs to provide a list of document requirements in the initial invitation link or at another appropriate starting point. BC MQI will also post to website in AppCentral FAQs: <i>What will I need to complete this application?</i> 	<p>Working Group: BC MQI and HA Credentialing Offices</p>
<p>5.2 Uploading attachments 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 Lack of warning/ indication that the application was incomplete, resulting in returned applications due to missing uploads 	<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 – February 2016: <i>An attachment form</i> was added to provide one site where documents could be uploaded.</p> <p>BC MQI is consulting with HAs on opportunities to 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>To improve clarity on the required attachments, and provide in-system support BC MQI is also exploring the feasibility of these system additions:</p> <ul style="list-style-type: none"> A-003. Investigate adding button/tab to indicate attachment requirements for each section. (ER-165) A-036. Investigate adding a pop up to confirm “Are you sure” before submitting to medical affairs (ER-174) A-037. Investigate adding a “recall” button for practitioners, to be effective when credentialers have not yet accessed the process (ER-175) 	<p>Action taken–Feb. 2016</p> <p>Action Items: A-003, A-005, A-021, A-036, A-037</p> <p>Enhancement List: ER-165, ER-174, ER-175</p>

User Issue	Recommended Action	Issue Tracking
<p>5.3 Data entry 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"> • A-40 Revisit the list and formats of mandatory fields in the reappointment application form to improve clarity for practitioners (ER-137) – Assess date fields in AppCentral for formats & option to auto-populate for today’s date where suitable (ER-060) – Investigate how to improve clarity of Signature and date fields where a signature is required (ER-070) 	<p>Working Group: BC MQI and HA Credentialing Offices (assess in view of AppCentral UX install for 2017-18)</p> <p>Action Items: A-040</p> <p>Enhancement List: ER-137, ER-060, ER-070</p>
<p>6.0 PRIVILEGING DICTIONARIES - EASE OF USE</p>		
<p>6.1 Navigation of the more complex dictionaries can be difficult 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"> • A-030 Seek to improve the dictionaries’ ease of use in AppCentral – Add a summary page to quickly show which privileges have been selected (ER-170) – Add “dictionary” to labels for improved clarity (ER-169) • Action taken – August 2016. Add page numbers to the dictionaries in AppCentral, to support navigation. • Seek to resolve confusion that may arise between “Admitting” and “Refer and Follow” privileges 	<p>Action Items: A-030</p> <p>Enhancement List: ER-169, ER-170</p> <p>Action taken-Aug. 2016</p> <p>Working Group: BC MQI, Quality Assurance Working Grp</p>
<p>7.0 OVERALL PROCESS</p>		
<p>7.1 Time to complete Overall, the application process could be quite time-consuming.</p> <ul style="list-style-type: none"> • Reported lengths of time to complete 2016 processes ranged from 20 minutes – 5 hours. • 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 	<p>Working Group: BC MQI</p>

User Issue	Recommended Action	Issue Tracking
	<p>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>	
<p>7.2 Duplication of processes for cross-appointed practitioners 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: <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>Working Group: BC MQI</p>
<p>7.3 Duplication of processes with other bodies or programs 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"> • College licenses: The License Expiry Monitoring Module (LEMM) to be added to the C&P system will reduce or eliminate the need for practitioners to provide license documentation. The LEMM is to be in place before 2017 reappointments, though implementation is at the discretion of each health authority. 	<p>Working Group: BC MQI</p> <p>Action Items: A-002</p>