DIS Guiding Principles
Solutions Architecture

The following principles describe the current DIS solutions architecture strategy:

ICT GUIDING PRINCIPLE	PROCUREMENT QUESTIONS
Cloud based architecture SCC's requirement is for cloud based solutions, preferably Software as a Services (SaaS). The solution should be responsive to our usage demands including performance (auto horizontal scaling) and subscription based pricing.	**Cloud based architecture** SCC's requirement is for cloud based solutions, preferably Software as a Services (SaaS). The solution should be responsive to our usage demands including performance (auto horizontal and vertical scaling) and subscription based pricing. Please describe your proposed solution architecture (include a diagram showing modules and end user touch-points) and approach to pricing / licensing.
Mobile access All end user functions to be mobile accessible. Solution functionality should be delivered via a mobile friendly user interface (e.g. app, mobile browser interface) which is designed to be responsive to the device dimensions (i.e. responsive design). iOS and Android should be supported.	**Mobile access** SCC's preference is for all end user functions to be mobile accessible. How is the solution functionality delivered to the end user (e.g. app, mobile browser interface)? How is it designed to be responsive to the device dimensions (i.e. responsive design)? What platforms are supported (e.g. iOS, Android)?
End user interfaces Standard desktop end user interfaces should be supported. E.g. application, web browser. Restrictions such as browser non-standard plug-ins (such as Flash or Java) should be avoided.	**End user interfaces**. How is functionality delivered to the desktop based end user (e.g. application, web browser)? What restrictions such as browser plug-ins are required?

User authentication and identify management. User single-sign-on for SCC staff and public users, should ideally be supported, with OKTA / SAML being the preferred approach. Software functionality such as access privileges should be linked to user identity if possible.	**User authentication and identify management**. SCC's preference is for user single sign on, with OKTA / SAML being the preferred approach. Does your solution support this? Is the user's identity linked to software functionality such as access privileges? How is single-sign-on supported for public users? How are voice telephony based users authenticated?
Application Programmable Interfaces SCC requires all reasonable functionality and data to be available via exposed Application Programmable Interfaces (APIs) for both output and input integration. This is for use by SCC in integration via our enterprise integration platform to our other platforms such as Business Intelligence. APIs should be of contemporary industry standards, preferably REST based, and versioning properly managed. API documentation or catalogue should be provided.	**Application Programmable Interfaces** SCC requires all reasonable functionality and data to be available via exposed Application Programmable Interfaces (APIs) for both output and input integration. This is for use by SCC in integration via our enterprise integration platform to our other platforms such as Business Intelligence. APIs should be of contemporary industry standards, preferably REST based. Please describe your APIs (include a catalogue / documentation) and your approach to API versioning.
Monitoring and alerts All solutions require the ability to be monitored for system status and usage, and for issuing of alerts for system issues or outages. Ideally this information is available via APIs?	**Monitoring and alerts.** SCC requires the ability to monitor system status and usage, and to receive alerts for system issues or outages? Please describe how your solution provides this. Is this information available via APIs?
Configuration SCC require solutions that allow us to perform configuration but do not require customisation. That is, functionality should be achievable with configuration by our key users, but should not require bespoke software development.	**Configuration** SCC require solutions that allow us to perform configuration but do not require customisation. Describe how your solution functionality can be achieved through configuration only.
Hosting SCC require a high degree of confidence in application and data hosting. SCC require hosting by a tier 3 data centre and preferably in Australia. If not hosted in Australia then Australian law must apply to the associated service contract (particularly for IP and data ownership, privacy, and disputes).	**Hosting** SCC require hosting by a tier 3 data centre and preferably in Australia. If not hosted in Australia then Australian law must apply to the associated service contract (particularly for IP and data ownership, privacy, and disputes). Where will the application and data be hosted? Will any aspects of the solution be hosted outside of Australia and if so, where?

Security SCC require a high level of security – for personnel, system, data and application). Australian Signals Directorate (ASD) certification (or relevant alternate certification) is highly desired. (https://www.asd.gov.au/infosec/irap/certified_clouds.htm)	**Security** SCC require a high level of security – for personnel, system, data and application). Do your cloud services have Australian Signals Directorate (ASD) certification (or relevant alternate certification)? (https://www.asd.gov.au/infosec/irap/certified_clouds.htm) How are PCI compliance and other security standards met?
Data ownership SCC require ongoing ownership of, and access to, our intellectual property, such as data, algorithms and integration developed or commissioned by us. Data backup and disaster redundancy should also ideally be based in Australia.	**Data ownership** SCC require ongoing ownership of and access to our intellectual property, such as data, algorithms and integration. Which data remains the property of SCC and which is the property of the vendor? What is the data backup and retrieval process and where is it based? What disaster redundancy measures are taken?
Environments. SCC's preference is for at least one secondary solution environment for testing and / or user training.	**Environments**. SCC's preference is for at least one secondary solution environment for testing and / or user training. What environments will be provided and how will they be managed?
Upgrades and outages The process for managing system upgrades should be clearly understood and communicated. SCC users should ideally have access to the new environment for testing and training ahead of the upgrade. Planned and unplanned system outages should be clearly communicated.	**Upgrades and outages** How frequently are upgrades issued and how is this process managed? Will SCC users have access to the new environment for testing and training ahead of the upgrade? Will a planned system outage occur and if so, how are planned outages communicated?
Support A reasonable level of vendor support should be provided. Support should cover both issues and help with learning new features. Support may be required for both key (admin) users and end users.	**Support** What support is available for the solution - how and when is it accessible, where is it based? Is there a difference in your support offering between day-to-day issues and help with new features? What is the first tier of support and the escalation process? Are any partners or third parties involved in provision of support? Is there a difference in support for key users (admin users) and end users?

Modular Wherever possible solution functionality should be modular. For larger solutions the ability to add or remove modules at a later time is required. Each module should provide exposed industry standard APIs (see Application Programmable Interfaces) to allow for integration between those modules and other solutions.	**Modular** If the solution functionality is modular, describe the extent to which modules can be added or removed at a later time. Describe your history with assisting your other customers to add and remove modules. Show that each module provides exposed industry standard APIs (see Application Programmable Interfaces requirement) to allow for integration between those modules and other solutions.
Sub-partners SCC's preference is to have as single lead vendor for a solution. If sub-partners are involved in delivery of the solution (e.g. for individual modules, hosting, support, training, implementation or hardware) the sub-partner relationship should be adequately managed by the lead supplier.	**Sub-partners** SCC's preference is to have a single lead vendor for a solution. Are any sub-partners involved in delivery of the solution (e.g. for individual modules, hosting, support, or hardware). If so, how is the sub-partner relationship managed by you?
Agile SCC's preference is for an agile solution implementation. SCC aim for an iterative approach to allow for learning, improvement and flexibility during the process.	**Agile** Please describe your implementation methodology and how you can deliver your solution in an agile way.

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