

## Appendix to the Asset Management Report

### Option 1 – Continue to use the interim database (do nothing)

“Do nothing” is not realistically an option for managing expensive assets within FNDC. The continued use of the interim database comes with the responsibility to pragmatically review data standards and apply various changes to improve the non-waters Asset Management practice in the FNDC. The current processes and organizational structure are characterized by a high degree of human error, a reliance on manual processing, and an overreliance on the specialized knowledge of a limited number of employees, rather than being embedded within well-documented business procedures. Confidence in data will continue to be low. At the least, some system controls need to be placed over the data capture involved in the interim solution.

#### Pros:

- No additional capital expenditure
- No additional operational expense
- Staff are very familiar with the mechanisms for managing asset data

#### Cons:

- The number of staff familiar with the process is reduced as most have transitioned to FNWA
- Organisational reluctance related to necessary practice change to enforce data quality may complicate the adoption and revision of process changes
- Ongoing data quality issues due to the “human factors” involved
- Lack of a standards-based data hierarchy controlling data grouping
- No system-based controls on data capture
- No ongoing historic data
- Ongoing dependence on specialised staff
- Potential contravention of statutory obligation for records keeping
- Continuing inefficiencies
- No inclusion of additional assets into the processes

#### Cost:

The financial implications of this option are challenging to determine with precision. The implementation of FNWA has resulted in a fundamental shift in the staffing of the IAM asset management function. As a result, it has become challenging to accurately assess the current state of affairs. Furthermore, there is a concern that retaining personnel with the necessary level of expertise and experience to manage the existing tools and procedures may prove difficult. This could lead to an increase in costs associated with lower efficiency, increased staff training expenses, and a higher rate of errors that require remediation.

### Option 2 – Continue to target the Infor IPS platform (existing plan)

Infor IPS has been established under the AMS Project and is available to be used as the system of record for managing assets. Given the availability of IPS as a platform and the existing knowledge of staff related to this platform, it is reasonable to consider using IPS for all the assets under management by the FNDC.

If this decision is made, it would result in FNDC having to rely on a costly platform that is not suitable for the revised asset management model (which involves managing around 8,000 assets) and has been shown to limit some of the necessary reporting and planning capabilities.

The platform also has the ongoing implication of missing dynamic reporting and the data lake desired in the original RFP. This presents a set of limited functionalities available at a significant operational cost when considering the volume of assets under management in the Council. It may be possible to create a data warehousing function that will allow for internally created dynamic reporting. This would require additional capital funding which can be included in the FY24 annual plan.

Pros:

- Using an established platform requiring no additional system knowledge
- Does not delay implementation due to a procurement process
- Previous data migration efforts can be leveraged efficiently
- Would enforce standardised behaviours within asset management staff

Cons:

- Would require a significant replanning to revise the scope, time and cost of implementation
- Ongoing committed capital and operational funding in a very high-cost platform out of proportion to the number and type of assets being managed even when adding non-IAM assets into consideration
- No dynamic reporting without a significant increase in platform licences and further capital cost for professional services
- Significant additional capital cost to establish a “Data Lake”
- Requires significant ongoing operational support as an “on premises” infrastructure which is no longer best-practice
- Product capabilities for spatial planning are not well understood
- Upgrade path to a “Cloud Suite” version of IPS Software-as-a-Service (SaaS) platform is a significant operational cost
- Cost/Benefit of on going operation to asset volume is significant
- On premises upgrades are prohibitively expensive

Cost:

The remaining budget of the current AMS Project is approximately \$570k which would be fully used on the technical changes. It is estimated that more than \$250k would need to be sourced to implement the dynamic reporting and data lake features. Additional funding would also need to be identified to clarify and implement the process and structural changes required to make IPS-based asset management efficient and effective within the FNDC. There is also an ongoing annual operational cost of approximately \$70,000-\$80,000 in annual licence and support costs excluding the cost of any additional licences acquired for extended functionality.

### Option 3 – Shared Platform

This option sees the FNDC seeking to partner with one or more other local authorities to combine their asset management needs into a single, shared platform. This would, at the least, reduce the operational cost for licencing and infrastructure costs. There has been a great deal of discussion at the national level among central and local government bodies on the topic of sharing IT platforms to reduce operational costs. This has significantly influenced the direction this report has taken in terms of recommended actions.

Investigation has pointed staff to various potential partners including:

- Auckland City Council (tenant on an existing platform)

- WDC/KDC/NRC (implement a new shared platform)
- Other Councils outside the Northern region

#### Pros:

- No FNDC responsibility for maintaining an isolated platform at significant cost for the size of the asset pool
- Potential to use an existing, mature platform if partnered with a council already operating a competent system
- Lower cost of operation by pursuing a “per user” model
- Fast implementation if we opt for a partnership with an established partner
- Lower impact on IT Operations team for application support if we join an existing system
- Possibility for FNDC to become a “centre of excellence” if we take the lead role in the northern region
- Previous data migration efforts can be leveraged
- Possibility to leverage an existing “Centre of Excellence” existing platform
- Alignment with the concepts laid out in the Future for Local Government draft report(s) with respect to a shared IT platforms

#### Cons:

- No identified target new platform at this stage requiring further time for market selection
- A potential for a lengthy negotiation if we opt for a greenfields partnership (i.e. new platform with new partners)
- Complication of having to re-invest capital and operational funding if the shared-platform model breaks down
- Less control over the Asset Hierarchy definition/standard
- Bureaucracy related to data governance/ownership
- Requires alignment of a multitude of asset management practices to create a shared paradigm
- Data migration design is unidentified

#### Cost:

While this is an approach that seems to be included in the draft Future for Local Government report, the actual implications of a broader shared platform policy have not been fully established. Consequently, any cost to implement a share platform model would be purely speculative at this point.

What can be legitimately claimed is that the sharing of a solution will result in:

- A reduction in ongoing IT support costs,
- Elimination of some IT capital costs,
- Lower initial investment and
- Removal of vendor support arrangements.

The degree of reduction in these costs would rely entirely on the number of participants in the share service, the agreement on any proportional distribution of shared cost and the

agreement on a shared set of policies and procedures that would ensure a single, consistency usage model is maintained in the chosen system.

#### Option 4 - SPM Assets

SPM Assets is a software designed for the management of physical assets and inventory, including tracking and managing asset data, location, and maintenance. It offers features such as barcode scanning, inventory management, and asset tracking.

SPM Assets is a SaaS product that sits squarely in the District Facilities asset management space. It specialises in the management of building and point assets with a comprehensive dynamic reporting package. The product is licenced based upon the specific modules desired so cost can be tailored to specific needs.

#### Pros:

- Has a mobile platform (responsive web app)
- API package available
- Includes Building/Property and Component/Asset model
- Work Request module is available
- Has a Risk-based view of assets
- Dynamic reporting is built in
- Asset Management Planning features are available
- FNDC has used a consultant that employs SPM as part of the annual valuations thus the vendor has some familiarity with our asset base
- Lower annual licence support cost than IPS

#### Cons:

- Weak on linear assets outside of component level
- Investment in IPS is sunk cost
- Limited capitalization due to SaaS
- Requires capital and operational investment to implement
- Potentially requires a different platform to that of the FNWA which may complicate matters should the alliance dissolve at some future date
- GIS integration is an added feature rather than a focus of the product

#### Cost:

The platform is SaaS so the costs will be substantially OPEX. Establishing the system will be in the range of \$30,000 to \$50,000. The annual licence cost is likely to be around \$35,000 for an Enterprise Licence model. Pricing is subject to a full and formal proposal based upon documented requirements. The implementation costs are significantly lower than other providers so this needs clarification.

#### Option 5 - Univerus Assets (Previously Asset Finda)

Univerus Assets is an enterprise asset management system that provides a comprehensive solution for managing physical assets, such as buildings, infrastructure, and equipment. It offers features such as work order management, inventory control, and preventive maintenance scheduling.

This platform is the successor to the Asset Finda product which the FNDC previously had in place prior to the AMS project. Had there not been litigation from the then owner of Asset Finda, it is likely that this product would have been seriously considered as the asset management platform for the council when the RFP was conducted.

#### Pros:

- Previous data migration efforts can be leveraged
- Extremely capable interface with ESRI GIS platform

- Handles linear assets well
- SaaS platform licence cost is lower than the annual licence OPEX for IPS
- More intuitive user interface

#### Cons:

- Investment in IPS platform establishment is sunk cost
- SaaS platform is OPEX cost rather than CAPEX investment
- GIS integration is an added feature rather than a focus of the product

#### Cost:

The platform is SaaS so the costs will be substantially OPEX. Establishing the system will be in the range of \$130,000 to \$150,000. The annual licence cost is likely to be around \$40,000 - \$50,000 but the licence model needs clarification. Pricing is subject to a full and formal proposal based upon documented requirements.

#### Option 6 - CityWorks

CityWorks is a web-based Geographic Information System (GIS) that helps local government manage and maintain infrastructure and assets. It allows users to manage a wide range of assets, including roads, footpaths, and public buildings, as well as track and manage work orders, permits, and inspections.

This platform has recently entered the ANZ market but has been in use in North America and Europe for many years. It is based extensively on Integration with the ESRI Georeferencing system. The assets can be recorded directly into the ESRI system and the other data about managing the asset are recorded via the CityWorks platform.

#### Pros:

- Tight integration with ESRI/GIS which is used extensively in the FNDC
- Handles linear assets well
- Handles X, Y and Z coordinates in GIS which is becoming best practice and the absence of which is a weakness in some solutions
- SaaS platform licence is lower than the annual licence OPEX for IPS
- Data migration efforts can be leveraged
- More intuitive user interface
- Customer support is available in the APAC region

#### Cons:

- Software support is immature in the New Zealand market
- Software support is in the North American region
- No current installations in New Zealand as reference
- Investment in IPS is sunk cost
- SaaS platform is OPEX cost rather than CAPEX investment
- Less focus on buildings and facilities

#### Cost:

The platform is SaaS so the costs will be substantially OPEX. Establishing the system will be in the range of \$130,000 to \$150,000. The annual licence cost is likely to be around \$90,000 for an Enterprise Licence model. The RFI response included the most comprehensive set of

facilities, some of which may not be essential. Pricing is subject to a full and formal proposal based upon documented requirements.

#### Option 7 - Blackhawk

This platform has been identified as a leading candidate for the IoT technology assets. It could be used for the non-3 Waters assets also. The data stored in the Blackhawk system can be periodically extracted to a “data warehouse” for production of complex dashboarding and reporting. The main obstacle for Blackhawk adoption is the primary focus on industrial and fleet telemetry-based assets. There is no capability to manage linear assets such as those included in the rural stormwater arena should any change in strategy requires retention of stormwater within FNDC.

#### Pros:

- Opportunity to revolutionize the business processes leveraging system adoption to drive change
- Lower operational cost of licencing than IPS
- Potentially sharing of a platform with the IoT assets thereby reducing overall OPEX
- Mobile platform included in product set
- Includes Fleet Management option
- Interfaces with platforms like eRoad

#### Cons:

- Product does not cover linear assets (for stormwater)
- Solution does not centre on non-industrial assets (e.g. buildings, facilities)
- Does not integrate as well with the GIS platform – especially with respect to area/polygon references
- Limited dynamic reporting for infrastructural assets (e.g. buildings, parks, reserves)
- Data hierarchies are not aligned to conventions like the BIM standards

#### Cost:

Blackhawk did not respond to the RFI so there are no pricing details available. The review team consider this product to be not compatible with the facilities management aspect of the FNDC District Facilities assets so it is not recommended for inclusion of any future considerations in regard to this report's context.