

KDD087 - Mobility Solution for Logistics: Pre-built vs Full In-house Build

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Issue

The Conceptual Design phase [included endorsement](#) of a **Future Neptune based solution** for essential Syensqo logistics and warehousing operations via mobile handheld scanners. This is to provide online functionality but also ensuring that users can continue to perform daily tasks during any network dropouts.

The SyWay design intent is to provide the business with unified mobile applications that support the different business scenarios. e.g. The app for processing Inbound Deliveries should support IM-NonHU, IM-HU and EWM scenarios, to avoid the need for users to select from separate apps depending on the scenario.

The two potential approaches considered to implement this solution are:

Option A. HRC solution plus in-house build

Option B. Full in-house build

This KDD seeks to compare these approaches and evaluate the most effective option for Syensqo.

Recommendation

Option B: Full in-house build

This approach ensures a solution tailored exactly to Syensqo operational processes. This option has the following advantages:

- Gives Syensqo full control over the features, roadmap and security.
- Provides unified apps that support all Syensqo scenarios.
- Lower total cost of ownership compared to HRC option
- Allows faster adjustments when the business needs corrections or changes.
- Removes constraints related to changing existing apps from HRC.

Although full in-house development will mean a longer initial development time, requiring dedicated in-house resources, Syensqo can leverage the existing standard SAP EWM mobile functionality, the existing Neptune apps used by Syensqo and the existing SyWay team members that have experience of building similar in-house developed global solutions for handheld scanners. This recommendation also aligns with [KDD016 - Mobility Solution Direction for Enterprise Asset Management](#).

Estimates for developments required to augment the HRC solution and for the full in-house build attached: [SyWay Neptune Mobile Apps - HRC - With revised coverage](#)

Background & Context

Neptune is a Norwegian company whose Neptune platform is designed to create and deploy mobile applications that interface seamlessly with SAP applications. As a SAP-native solution, Neptune enables efficient integration while minimizing the need for middleware. The platform integrates multiple data sources and environments into a single launchpad or view.

Syensqo has rolled out the Nereid project to selected plants and warehouses. The Nereid solution is a Neptune-based mobility solution, which sits on Neptune DX Platform SAP Edition, including a set of business tailored applications which support and manage the site logistics and warehouse operations.

During the Conceptual Design phase, a decision was made to continue using the Neptune platform with the Future Neptune Solution, which will provide warehouse users with an unified view of both logistics and warehouse management functionalities within the SAP S/4HANA environment. It will not only offer online capabilities, while supporting network dropouts to ensure operational continuity, but also minimize change management impacts, facilitating a smooth transition to SAP S/4HANA. More details are described in [KDD025 - Mobility Solutions in Logistics and Warehouse Management Processes](#).

Depending on the future process design, the decision will be made in the Detailed Design phase, whether to develop highly customized applications in-house or utilize third-party vendor pre-built applications with reasonable enhancements.

Assumptions

1. The scope of this KDD excludes the mobility solution for Plant Maintenance (PM), which is handled by [KDD072 - Mobility Application for Enterprise Application Management](#).
2. The as-is handheld functionality will be harmonized to align with the SyWay program principles. However, the future mobility solution must continue to meet all relevant business needs.
3. This KDD included an assessment of the potential vendors offering pre-built Neptune solutions.
4. A separate assessment will be carried out to determine the scale of hardware and infrastructure required for sites planned to roll out the future mobility solution.
5. A review of existing hardware and infrastructure will be conducted separately for sites have already implemented the as-is mobility solution.
6. Any third-party Neptune partner solution will be augmented, via additional in-house app development and enhancements, to meet all Syensqo specific business requirements.

Constraints

While choosing full in-house build for the Neptune-based mobility solution is strategically sound, it may present certain constraints and challenges. These challenges are not necessarily unique to the in-house approach; but could also arise with off-the-shelf partner solutions, although in different forms and degrees.

- **Project Timeline Constraints**

The SyWay program involves both the core S/4HANA transition and end-to-end process reengineering. In parallel, the development of the Neptune-based mobile applications will proceed as a separate but closely linked workstream. This parallel execution increases the complexity of coordination, particularly in areas such as integration testing, user training, and change management. Additionally, any design changes within the core S/4HANA program may have downstream impacts on the handheld application design.

To mitigate these risks, it is essential to establish an integrated project plan that clearly defines interdependencies and coordination points between workstreams. This includes aligning on shared milestones such as test cycles, integration checkpoints, and readiness gates to ensure consistency and alignment throughout the program lifecycle.

- **Resource & Skills Constraints**

In-house development requires the project team to have the necessary skills and resources. Without proper planning and prioritization, key teams such as development, QA, and SAP functional resources may become overstretched during the transition. To mitigate this risk, it is essential to establish a dedicated sub-team focused on the mobility solution, prioritize high-impact use cases, and phase the delivery accordingly. Additionally, creating a centralized repository for shared design documents will promote alignment across teams. Cross-training SAP and mobile application developers on basic integration principles can also help reduce reliance on a small group of specialists and foster stronger cross-functional collaboration.

Impacts

Going with full in-house build as part of SAP S/4HANA transition doesn't only affect the mobility solution itself, but may have broader cross-cutting impacts on other areas of the project, such as the process, integration among different modules and IT landscape etc.

- **Process Alignment & Optimization**

Heavy involvement are needed from process owners to define/refine logic within Neptune apps, as well as the greater alignment between business and development. The custom apps may preserve existing, non-standard processes rather than adopting S/4HANA best practices.

- **Integration with Other SAP Modules**

The mobile apps will need to not only be able to handle warehouse related activities, such as goods receipt, goods issue etc. The solution also needs to cater for different warehouse structures, such as IM based with and without handling unit management and EWM based warehouses, and being able to interact with other function modules such as production material staging, goods issue and goods receipt and Transportation Management. General support is also needed batch management, label printing and item serial numbers.

- **Custom Development Governance**

An in-house approach increases the custom footprint, which adds to future maintenance effort, and could also mean more regression testing is required. In-house developments need strict development standards, code reviews, and versioning standards across Neptune and SAP ABAP. When there are multiple teams involved, this could bring the risk of inconsistency among different teams.

Business Rules

- The selected future solution should be implemented at sites where the as-is mobility solution is already in place and to all other plants that will benefit from the functionality.
- To roll out the solution to other relevant Syensqo plants, the cost-benefit should be evaluated while considering site-specific conditions /hardware regulations such as explosion and flammability risks.
- All plants using handling units will need to use the mobility solution for handheld scanners.
- Plants using the mobility solution will need to ensure sufficient mobile devices to support the execution of the daily operations and exceptions.

- To rollout a single device, to be used globally at all locations that do not have an ATEX safety requirement and a single device to be used globally at all locations that have an ATEX safety requirement. Ideally the ATEX compliant device would be an intrinsically safe version of the standard global device. Limiting the number of models used globally facilitates the mobility solution build regarding the scanner interface, device operating system version and software and a standard device staging process. This approach also facilitates device support.

Options considered

Business Requirements

A study has been conducted on the functionalities of the as-is Neptune solution. Due to the presence of two SAP instances, there are duplications, overlaps or inconsistencies in some functions. While the existing functionalities serve as the foundation for the business requirements, they will be harmonized to align with the principles of the SyWay program and adapted to meet the evolving business needs. For a detailed overview of as-is mobile functionalities, refer to the attachments on this KDD.

See attachment: Overview of As-Is Handheld Functionalities.xlsx

Based on the analysis of the as-is Neptune functionalities, the SyWay scope and workshops, to effectively support the logistics and warehouse operations, the Future Neptune-Based Solution should address the cross process business requirements, user experience and technical dimensions, as outlined in the table below.

Dimensions	Key Functionalities
Business Processes and high level requirements	Inbound Processes Process Inbound Delivery > Scan and process inbound deliveries (Selection via Inbound Delivery, Vendor ASN/Outbound Delivery or HU) Packing > Create new HUs and pack the delivery. > Print HU labels > Pack materials to existing HUs > Scan existing HUs on already packed delivery for confirmation Unloading > Perform unloading of HUs Scenarios > Support materials with and without batches" > Support EWM Deliveries > Support LE HUM Sloc Deliveries > Support NHU Deliveries > Support Return Deliveries > Entry or confirmation of item serial numbers EWM Putaway > Confirm EWM Warehouse Tasks for Putaway by queue > Confirm EWM Warehouse Tasks for Putaway by WO > Confirm EWM Warehouse Tasks for Putaway by HU > System Guided Production Order Putaway by queue Cancel PGR for Inbound Delivery > Cancel PGR Scenarios > Support EWM delivery

- > Support LE Delivery

Outbound Processes

Process Outbound Delivery

Picking

- > Display picking list with priority and location information.
- > Scan materials/HUs for picking confirmation
- > Multi-order picking (if applicable).

Packing

- > Pack NHU materials to handling units.
- > Assign / verify serial numbers.
- > Support unpack/repack/multi-level packing.
- > Generate and print shipping related labels.
- > Support for packing instructions

Loading

- > Loading of HUs.
- > Set loading status of EWM delivery
- > Support photos, to attach to delivery

Goods Issue (GI)

- > Option to PGI delivery

Scenarios

- > Support materials with and without batches"
- > Support EWM deliveries
- > Support LE HUM Sloc Deliveries
- > Support LE NHU Deliveries
- > Picking of item serial numbers

EWM Picking

- > Confirm EWM Warehouse Tasks for Picking by queue
- > Confirm EWM Warehouse Tasks for Picking by WO

Cancel PGI for Outbound Delivery

- > Cancel PGI

Scenarios

- > Support EWM delivery
- > Support LE Delivery

Unassign HU

Removes the assignment of an HU from a delivery

- > Support EWM
- > Support LE HUM Sloc

Inbound/Outbound Processes

Freight Order Unloading/Loading

- > Trigger Inbound FO events for Unloading Start and End
- > Trigger Inbound FO event for Check In (PGR) - Allowed when putaway /pack is complete
- > Trigger Outbound FO events for Loading Start and End
- > Trigger Outbound FO event for Check Out (PGI) - Allowed when picking/pack is complete
- > Support photos, to attach to FO

Production Processes

Production Order Staging

- > Staging of Production Supply Area

Scenarios

- > Support materials with and without batches"
- > Support EWM
- > Support IM HUM Slocs
- > System Guided Production Order Staging by queue
- > Return from Production Supply Area

GI Production Order

- > Consumption of production order components

Scenarios

- > Support materials with and without batches"
- > Support EWM
- > Support IM HUM Slocs
- > Support IM Non-HU materials

GR Production Order

Scenarios

- > Support materials with and without batches"
- > Support EWM
- > Support IM HUM Slocs
- > Support IM Non-HU materials

Confirm Time Ticket

- > Confirm time ticket

Internal Processes

HU Storage Location Transfer

Scenarios

- > Support transfer from IM S loc to EWM S loc
- > Support transfer from EWM S loc to IM S loc

NHU Storage Location Transfer

Scenarios

- > Support materials with and without batches
- > Support item serial numbers

Storage Bin Transfer

Create and confirm Warehouse Order

Scenarios

- > support HU and NHU
- > support manual destination bin entry
- > support destination bin determination (system proposed)

HU Display/Print

Displays HU content and allows display of hierarchy

Print HU label via Software

Scenarios

- > Support EWM"
- > Support IM HUM Sloc

Enter Physical Inventory Count

Enter count for PID

Scenarios

- > Support MM PID
- > Support HUM PID
- > Support EWM PID

Create Ad Hoc Physical Inventory Document

Create PID

Scenarios

- > Support MM PID
- > Support HUM PID
- > Support EWM PID

HU Stock Type Change

Scenarios

- > Support EWM
- > Support IM HUM Slocs

NHU Stock Type Change

Scenarios

- > Support EWM"
- > Support IM
- > Support materials with and without batches
- > Support item serial numbers

Stock Overview

- > Selection by Material, batch, Sloc , Storage bin
- > View stock on hand figures at different levels : Sloc /bin/material/batch/HU
- > Drill-downs for HU, batch, item serial serial number, storage bin

HU Pack/Unpack

- > Pack HU
- > Unpack HU
- > Empty HU
- > Pack Material
- > Unpack Material
- > Create Empty HU/Print Label

Scenarios

- > Support EWM
- > Support IM HUM Slocs

Goods Issue

- > GI for scrapping
- > GI for Cost Centre
- > Goods issue for WBS element
- > Goods issue for reservation

Scenarios

- > Support materials with and without batches"
- > Support EWM
- > Support LE HUM Sloc
- > Support LE NHU
- > Support item serial numbers

Batch Change

Change batch - App is restricted to specific business scenario

- > Support EWM
- > Support IM

Block Material/Batch

Block all stock of a material/batch

Scenarios

- > Support EWM
- > Support LE HUM Sloc
- > Support LE NHU

Central Functions

Set/Change user parameters

- > Set/Change user plant parameter (WRK)

	> List posting messages Barcode Decoder > Ability to scan any barcode to see barcode symbology and full content > Ability to capture several barcodes and post to SAP for reporting purposes/download to Excel. e.g. For analysis of returned stock that was shipped prior to SyWay go-live Print Label > Ability to print adhoc labels for product (with batch, subplot & qty) and Handling unit with barcode
Usability and User Experience	• Support network dropouts ◦ Store data for ongoing operations to avoid losing the data and/or forcing a new logon in the event of a network dropout • Unified Applications ◦ Users to select handheld apps based on business processes, e.g. Process Inbound Delivery App, rather than separate apps for IM-NonHU, IM-HU and EWM. • Intuitive and Touch-friendly Design ◦ Support an agreed global device for a non ATEX environment. ◦ Support an agreed global device for an ATEX environment. • Support the agreed SyWay languages • Optimized system performance , scanning response time and real-time postings. • Handheld App Launchpad also available on desktop Fiori menu
Architecture and Technical Integration	• Built on latest version of Neptune DXP • Built for latest Android version • UI5-based Fiori-style apps optimized for rugged devices • Integration with SAP S/4HANA • Simple staging process to allow staging on receipt of new or repaired device • Security and authentication (e.g., SSO using OAuth authentication method, with MFA such as via employee RFID card, user roles) • Mobile Device management and support, including remote control access, with up to date MDM software. • Logging and monitoring of mobile transactions • Coded to avoid lock errors from self locking or multi user locking at time of SAP updates • Support quantity input fields with decimals to 3 decimal places. (Same as SAP) • Support different barcode symbologies including GS1 Data Matrix and Code 128 • Connectivity via WiFi or GSM

Option A: HRC solution plus in-house build

Solution Overview

With this option, Syensqo will select the pre-built solution from HRC, and add further developments to fulfill the additional business requirements of Syensqo.

HRC provides a suite of ready-to-deploy Neptune mobile applications that cover key logistics and warehousing operations, backend integration with SAP S/4HANA, and run Fiori-style Apps optimized on Android-based industrial handheld devices.

To fully support the above business requirements, the HRC solution will need to be augmented and enhanced for Syensqo specific needs. The customizations would include:

- Custom development of apps to meet requirements not supported by HRC. e.g. LE-HUM and TM functionality.
- Enhancements to pre-built apps (e.g. additional validation or operation logics)
- UI/UX adjustments for improved usability on handheld devices
- Localization or language support if applicable

Vendor/Partner Engagement

To identify a potential pre-built solution, a partner search was conducted using information on the Neptune Software website. The Config Team and HRC were the two official Neptune partners selected for further analysis as they both provided pre-built solutions. The matrix below presents an overview assessment and the summary findings based on a series of demonstration and discussion meetings. The full list of vendor partners initially assessed is attached: Neptune - Partner Study.xlsx.

Solution Partner	Overview	Functionalities	Usability & User Experience	Architecture & Technical Integration	Summary of Findings
The Config Team	The Config Team provide PreBilt™, a suite of mobile applications designed to digitize end-to-end supply chain processes within warehousing, manufacturing, and distribution centers. Built on Neptune Software's DX Platform, PreBilt™ offers a highly configurable, low-code solution that streamlines supply chain operations.	- Offers a suite of mobile applications designed to digitize end-to-end supply chain processes within warehousing, manufacturing, and distribution centers. - Provides a KPI and Analytics application that supports both EWM and WM, allowing enterprises to monitor performance and identify bottlenecks.	- Highly configurable and out-of-the-box solution, enabling deployment in days. - Simplified user interface designed to reduce training time; one customer reported reducing new staff training time from four days to two hours.	- Built on Neptune Software's DX Platform, and the SAP RF framework to ensure seamless integration with SAP systems. - Supports hybrid app development, allowing switching between platforms or mixed systems from iOS, Android, and Windows operations anytime.	- PreBilt supports IM and EWM but not IM-HUM nor TM - Not clear how IM-HUM functionality could be embedded into existing PreBilt apps. - User interface is still basic. - Heavy reliance on the Mobile Data Entry RF Framework configuration. Both standard EWM, custom EWM and custom IM framework configuration is required, which would be burdensome.
HRC Software	HRC provides ready-to-use integrated applications for SAP Supply Chain, Maintenance and Procurement processes. - Click here for Neptune partner details. - Click here for HRC solution introductions.	- Provides ready-to-use web and mobile applications for Supply Chain (SAP WM, SAP EWM), Maintenance (SAP PM), and Procurement processes. - Allows customers to fully integrate SAP documentation (SAP GOS, SAP DMS) within the process and adapt to their strategy with deep-linking between apps.	- Designed and built by focusing on end-users, ensuring applications are optimized for industrial devices (PDA and tablet). - Installation of apps can happen within a 24-hour period, facilitating quick deployment.	- Built on Neptune DXP, ensuring seamless integration with SAP systems. - Supports hybrid app development, allowing switching between platforms or mixed systems from iOS, Android, and Windows operations anytime.	- High annual licensing costs. - Supports IM and EWM but not IM-HUM nor TM - Apps are not unified. Separate apps for IM and EWM. - Not clear how IM-HUM functionality could be embedded into existing apps. - Impressive user interface. - Coverage of high level Syensqo requirements is approximately 65%. *Does not include any weighting of individual high level requirements. HRC later agreed to include additional Syensqo requirements in their roadmap and to add the LO-HUM functionality as a co-innovation. With the additional roadmap items and the co-innovation the high level coverage was over 90%. - Although high-level coverage is high there are already several known topics that would require changes to standard HRC apps.

The Config Team's heavy reliance on RF Framework configuration (Both standard EWM, Custom EWM and custom IM) would add a burdensome overhead, especially for customizations to standard PreBilt applications and to in-house built applications. With this approach we would be reducing the benefits already provided by the decision to use Neptune, where this config is unnecessary.

The user interface of PreBilt was also basic compared to the impressive user interface from HRC.

For these reasons it was decided to only consider the HRC solution for this KDD.

Option B: Full in-house build

Solution Overview

With this option, a Neptune-based mobility solution will be fully developed as part of the SyWay program. The mobile apps will support the required logistics and warehouse operations in S/4HANA, fulfilling key functional and technical requirements:

- Align with SyWay program principles and requirements
- Enable real-time data capture, validation and postings via mobile handheld scanners.
- Provide unified applications for end users, based on process. e.g. A single app for Processing Inbound Deliveries, rather than separate apps depending on IM and EWM.
- Application functionality designed specifically for Syensqo requirements
- Support SAP S/4HANA integration with components such as Embedded EWM and TM
- Multilingual support
- Fiori-like responsive UI via Neptune

- Mobile transactions monitoring report

Implementation Team

By choosing the full in-house developments option, the implementation team must be carefully structured and resourced to handle both technical and functional complexities, while aligning with the overall program.

- Skill & Expertise Requirements

Both SAP functional and technical expertise will be required, for example, the functional expertise on SAP IM/EWM/Handling Unit/Serial Number Management etc, the Neptune platform expertise on App design with SAPUI5/Fiori principles and backend integration via ABAP and OData etc., the integration / middleware expertise on SAP gateway, OData publishing, and interfacing mobile apps with printers and scanners, as well as mobility & UX expertise on UX design following Fiori guidelines etc.

Here is a role and responsibilities matrix to consider.

Role	Responsibilities
Project Manager (Mobility Stream)	Oversees planning, resource coordination, status reporting, risk management.
Neptune Developers	Build, test, and deploy custom mobile apps; handle backend integration.
SAP Functional Consultants (Logistics, EWM & PP)	Define and validate process logic, movement types, and document flows.
SAP ABAP Developer	Build/extend OData services, custom APIs, and backend logic for app integration.
UI/UX Designer (Optional but valuable)	Ensure app usability and user satisfaction. Align with Fiori 3 standards.
Mobile QA/Test Lead	Leads testing strategy, automation (if any), defect resolution, and UAT coordination.
Authorization & Security Analyst	Implements and validates role-based access for mobile apps.
Infrastructure & Device Coordinator	Manages mobile device setup, MDM compliance, connectivity, and hardware compatibility.
Change & Training Lead	Ensures that end users are trained on new apps, manages adoption and feedback loops.

Evaluation

	Option A HRC Solution plus In-House Build	Option B Full In-House Build
Function Fit & Customization	 Based on a high level requirements review, the HRC solution provides coverage of around 65% of the listed requirement items. HRC later agreed to include additional items in their roadmap and to include LO-HUM functionality as a co-innovation. This made the high level coverage over 90%.  These coverage figures do not include any requirement weighting and there are already known Syensqo detailed requirements that would involve further changes to standard HRC apps.  Not clear how additional Syensqo scenarios can be embedded in existing pre-built apps to align to the unified applications design.  Changes to standard HRC apps could be constrained or blocked by the HRC design or roadmap.	 High degree of customization, as Syensqo can design the solution to fit the specific business requirements.
Scalability	 Generally scalable, as HRC apps will be designed for a wide range of use cases.  Could have limitations in extreme scaling scenarios.  Requires careful design and ongoing monitoring.	 Scalability can be tailored to business needs  Easier and quicker to resolve any performance issues since Syensqo will have complete control of both front and back end.
User Experience (UX)	 Impressive User Interface. Best seen to date for Neptune apps.	 Syensqo will have full control over the design and user experience.  User Interface can be inspired by HRC approach  Achieving a high-quality, intuitive UX may take more time and effort.

Integration with SAP S/4HANA	+ Neptune apps are built inside S/4HANA.	+ Neptune apps are built inside S/4HANA.
Time to Implement	Estimate of approximately 172 days for design and test of co-innovation functionality required by Syensqo. Estimate of approximately 90 days for in-house build of additional functionality required by Syensqo. Estimate of approximately 88 days to test and learn the HRC apps Total of 350 days for Syensqo	- Estimate of approximately 1160 man days to build and test Syensqo solution. + SyWay team can leverage from standard SAP EWM mobile apps and experience and lessons learned from other builds of global Neptune logistics and warehouse solutions.
Cost Estimates (euros)	Total Cost of Ownership for SyWay: 2 MM Total Cost of Ownership for IT (2025-2034): 5.1 MM Grand Total Cost of Ownership (2025-2034): 7.1 MM Uses low point of HRC licensing price for 800 users. HRC has indicated that they are willing to review the licensing costs. Includes Neptune licensing and unlock fee.	Total Cost of Ownership for SyWay: 2.3 MM Total Cost of Ownership for IT (2025-2034): 3.2 MM Grand Total Cost of Ownership (2025-2034): 5.5 MM Includes Neptune licensing and unlock fee.
Maintenance and Support (** Country Base, Language etc.)	+ HRC release 4 updates per year. Although HRC advised that these updates were not mandatory, Syensqo would need to regularly update. + HRC Consulting is the current partner for the support of Neptune apps - Vendor updates require full regression testing.	+ Syensqo will have full control over updates and maintenance but must allocate own resources to manage it.
Security	- Need to rely on the HRC solution security control capability.	+ Better control over security policies and internal access protocols compared to vendor-hosted apps.
Innovation and Future-Proofing	+ HRC solution is currently continuously updated. - Vendor updates may not always align will Syensqo requirements.	+ Flexibility to incorporate new features and innovative technologies.
Cost Considerations	<u>Initial Investment</u> Licensing and subscription costs. + Lower initial cost. <u>On-going Costs</u> Maintenance, updates, support costs. - Ongoing fees.	<u>Initial Investment</u> Development costs (including resources and training). - Higher initial cost. <u>On-going Costs</u> Maintenance, bug fixing, future upgrades, and resource requirements for ongoing support. + Potentially lower long-term maintenance.

See also

[KDD016 - Mobility Solution Direction for Enterprise Asset Management](#)

[KDD025 - Mobility Solutions in Logistics and Warehouse Management Processes](#)

[KDD072 - Mobility Application for Enterprise Application Management](#)

File

Modified

PDF File Approval from 3 GBU SC VPs.pdf Approval from 3 GBU SC VPs

Dec 05, 2025 by CHIEW-ext, Yock Sang

Microsoft Excel Spreadsheet SyWay Neptune Mobile Apps - HRC - With Revised Coverage.xlsx	Aug 14, 2025 by BIRSE-ext, Gary
Microsoft Excel Spreadsheet Overview of As-Is Handheld Functionalities.xlsx	Jun 24, 2025 by BIRSE-ext, Gary
Microsoft Excel Spreadsheet KDD - Neptune - Partner Study.xlsx	Jun 23, 2025 by BIRSE-ext, Gary

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Change log

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Dec 05, 2025	Actor	Type	Activity	Version
Approved	 CHIEW-ext, Yock Sang	State	changed state to Approved at 2:25 am	v103
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