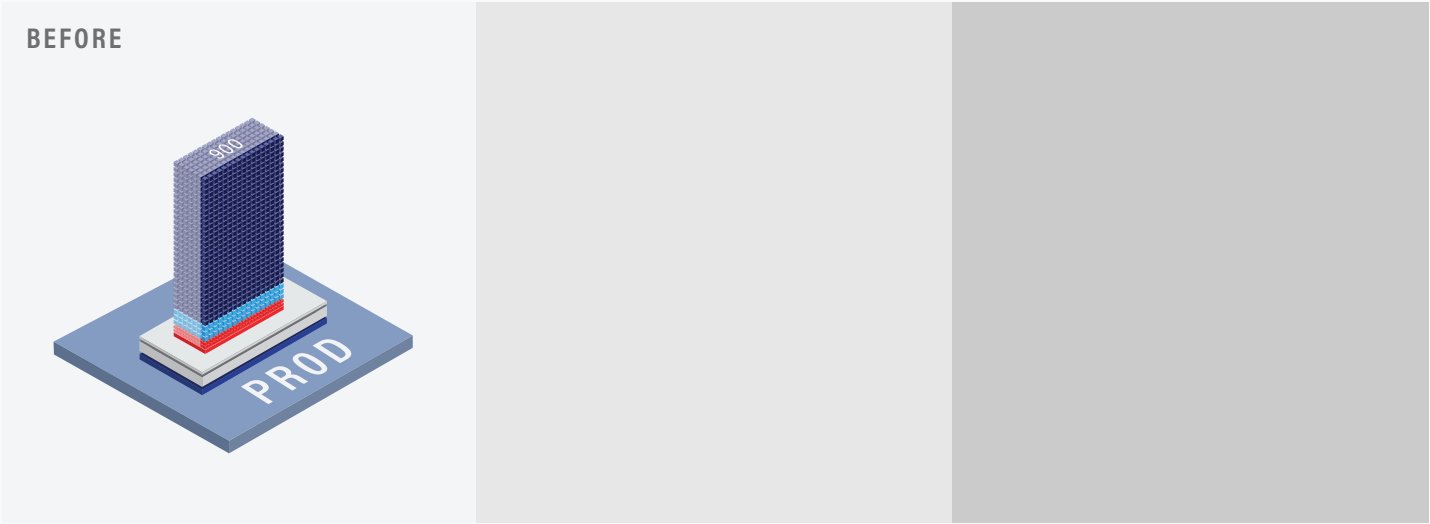
S/4HANA MIGRATION: LANDSCAPE MANAGEMENT BEFORE, DURING & AFTER

A WHITE PAPER BY PAUL HAMMERSLEY

Landscape Management in a continuously improving S/4HANA world

Upgrading to S/4HANA is just the first experience of a new paradigm for functionality progression with SAP S/4HANA. Once a system has been upgraded to S/4HANA, there may be compatibility packs which need to be phased out, feature packs to be installed, and soon enough, another incremental S/4HANA upgrade (such as 1709 to 2021). In this white paper, we discuss some of the benefits of better data and test landscape flexibility, before, during and after the move to S/4HANA.

Before: Rationalize the landscape before a brownfield migration



A lot of organizations have a sprawling SAP non-production landscape. Some systems are old copies of production and some multi-client systems are relics of old projects long since completed. Over the last 20 years, enterprise-grade storage has become cheaper and more manageable. As a result, SAP landscapes have been allowed to use ever more space. Knowing that S/4 is looming, with in-memory database technology being much more expensive than disk, now is the time to lose the excess baggage. And, at the same time, ensure you have good test data for every part of the S/4 project, however you choose to approach it. With DSM you can spin up new system shells, populate them with lean clients containing masked data and use these to replace existing test systems. Alternatively, you can use the Client Sync powerful client deletion capability to remove redundant clients and delete ones you want to reset with good data. Find out how to Uncover invisible SAP test data to recover costs.

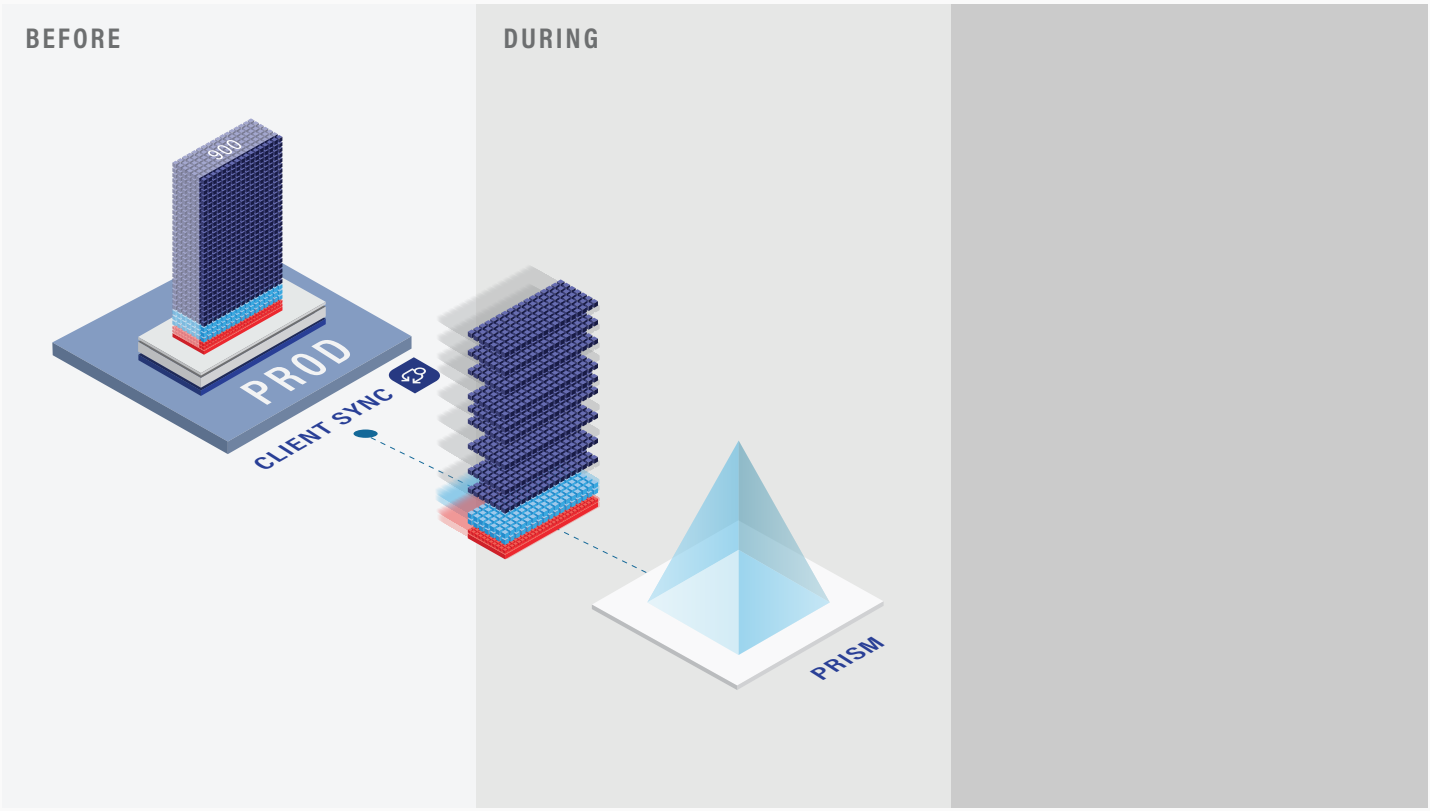
Before: S/4 prep steps

There are a number of steps that can be carried out even before your S/4 project begins, such as the Customer Vendor Integration piece. This, and other factors, may also begin data clean up activity. Having the capability to bring data-on-demand down to the development or sandbox system could make these functional pre-projects much less time consuming and more likely to be successful in showcasing the work to be done on production. See how Object Sync works.

Before: Mask sensitive data

Multiple SIs and niche consultancies may be involved in your S/4 project, and they may need to start looking at your non-production systems to provide recommendations, prepare analysis reports and scope potential projects. These organizations may be connecting from all over the globe and need to see accurate data BUT not real personal data. The number of headline-grabbing data breaches worldwide is growing: don't risk someone downloading a table of sensitive data from a QA system and selling it to the highest bidder. Data Secure gives you complete control over all sensitive data.

During: Sandbox



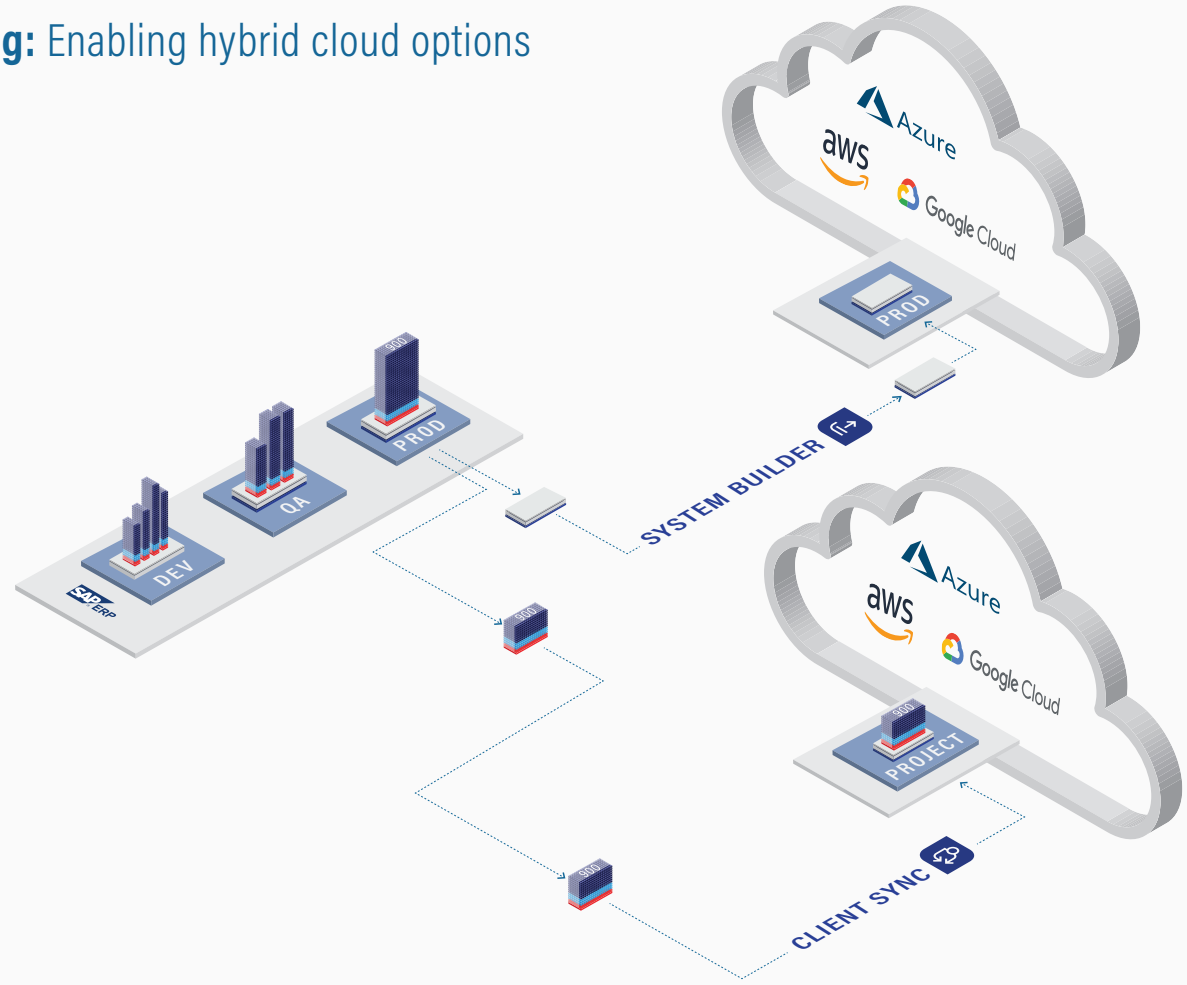
SAP recommends a Sandbox first before your project starts in full. Read more about what happens in that sandbox here. The more accurate the sandbox is the better but the bigger the system will be and the larger the HANA appliance. Use DSM to build a lean, dedicated sandbox for the project and consider the cloud, given that the duration of the sandbox project is not clear and the business has to be supported in the meantime. Here is how Ballance Agri used DSM in their Sandbox phase of S/4.

During: Rebuild non-production from new production

For anyone taking the brownfield approach, I would recommend considering how wide the gap is between the configuration, customization and code in the development system and production. Over the years, that gap has got wider and wider with old Z code abandoned, configuration taken to QA and then the project cancelled, and even third-party add-ons loaded in development but never uninstalled. Our migration teams use DSM to rebuild a new non-production landscape from the production system, as part of their cloud migration strategy. This could also be part of your S/4 migration approach.

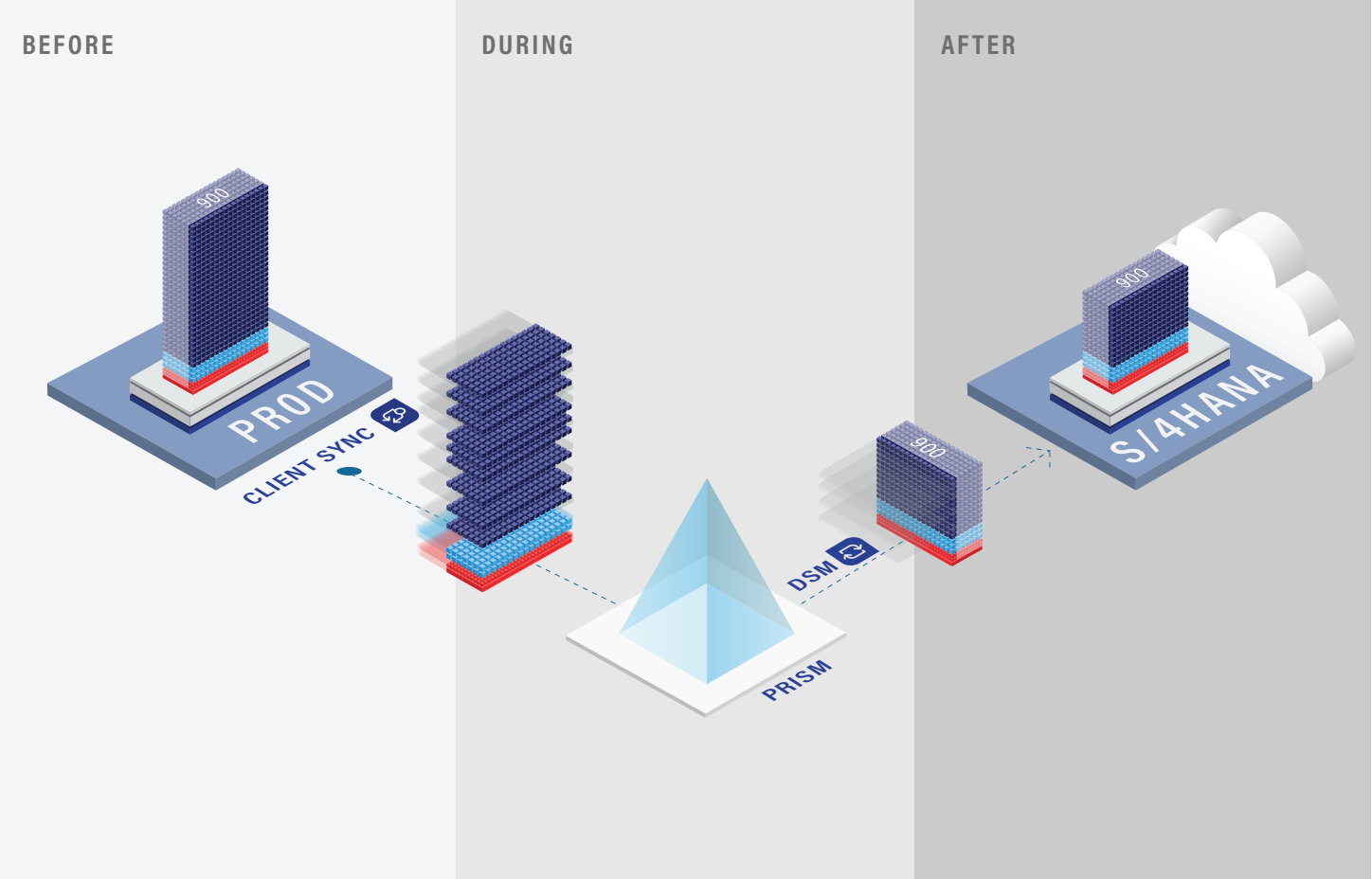
Rebuilding development and QA from production means a cleaner start on the other side, with a smaller gap between development and production, so less chance of defects sneaking through. Some organizations have even done this with full copies as part of their migration then discovered the costs on the other side when it's already too late. Presumably, the reduction in the volume of custom code to be refactored is a strong driver for this. Using DSM to build out smaller new test and development systems can bring the same advantage in closing the gap between development and production, and reducing the amount of Z-code to rework, but at a fraction of the cost, since smaller appliances can be used.

During: Enabling hybrid cloud options



With the ability to mask data on exit you can also consider keeping a production environment on-premise and moving all your non-production systems to the cloud. Those are the systems that can benefit most from the elasticity of the cloud resources. Power up the systems during key project phases; switch them off when they're not required. With Object Sync™ and Client Sync™ keeping test data up to date, there is no real person or sensitive data leaving your network.

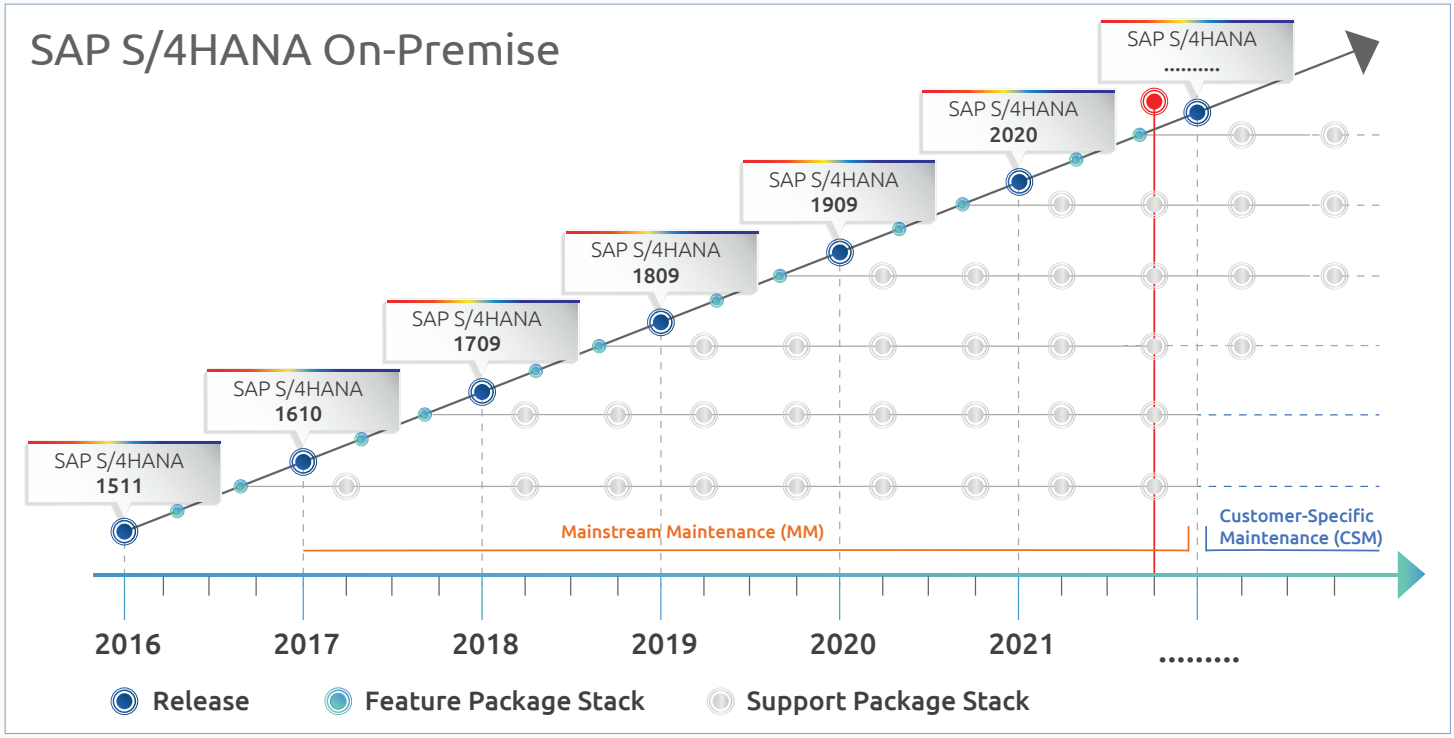
After: TDMS not supported on S/4



Once your S/4 dreams have been realized, this will not be the end of the journey. The functional teams will want to embrace S/4 as the digital core to the intelligent enterprise. There are likely to be many follow-on projects leveraging the possibilities of AI, machine learning etc as your business looks to find, or keep, the competitive edge. All of those projects will need accurate test data and an agile non-production landscape. The SAP offering for Test Data Management, which led many of our customers to find DSM in the first place, does not support S/4. From the changes we've made to our architecture over the last four years to handle new technologies used by S/4, I can understand that. DSM is used on S/4, is supported on S/4 and is certified on S/4.

After: Landscape agility for continuous improvement

To bridge the gap from ERP systems to the new S/4HANA world, SAP introduced compatibility packs; the principle being that some existing processes would be allowed to continue on the S/4HANA base, but only for a limited period. Whereas the ERP systems left behind have standard maintenance until 2027 (at the time of writing), the compatibility packs should all have alternative options by 2023, and are no longer supported from 2025. So the first continuous improvement may just be paying off some debts from the journey.



Courtesy of SAP 2020.

After each on-premise release, there are then two feature packs that can be installed (optionally). This is where any new capability the business may want comes from first. But once the next on-premise release is available, then the subsequent feature packs are no longer available. Meaning...it's time to upgrade again, although S/4HANA to S/4HANA upgrades will be easier with additional capabilities for zero downtime being introduced.

All this change needs change management, testing, validation, and iteration; all the things that require agile, fit-for-purpose test environments. Exactly what is needed – how much data, and how much integration to cloud systems – may vary each time. Some projects need to fail fast , ideally with accurate data in development systems, which Object Sync can provide without risking the integrity of the development clients. Some projects may need cut-down standalone systems in the cloud, and some additional clients in existing systems. This, again, is where DSM can help.

After: Keep test systems in the same appliance, even as production grows

As your SAP system accelerates away at the other side of the S/4 migration, its footprint will undoubtedly grow. Appliances will need to scale up, or scale out, but your non-production landscape may not need to. With careful planning and use of DSM Client Sync, you can keep smaller test appliances up to date with subsets from production, meaning the rate of growth of the test systems is far smaller than that of production.

Interested in help with your S/4 migration planning?

Our S/4 assessment report can give high-level insight into the likely levels of effort of each approach, and early warning of any considerable blocks that may await:

Number of customers/vendors without BPs linked

Technical blockers such as Non-Unicode system

Areas of SAP used by your system which are no longer supported

Amount of custom code

Visual Interactive Dashboard of the system to frame up internal conversations

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