



	nZDM (Near Zero Downtime Maintenance)	DMO (Downtime-Optimized)	ZDO (Zero Downtime Option)	nZDT (Near Zero Downtime Service)
Technology Approach	Shadow instance + CRR (Change, Record and Replication)	Shadow instance + CRR (Change, Record and Replication)	Copy source system repository to bridge subsystem repository and allow user to logon to bridge subsystem to continue their work while upgrade is running. Tables are shared, have different view or structures for upgrade and dialog access between bridge and production sub systems.	Technically a clone approach + SLT / CRR + system switch based on customer specific scenario.
Integrated with SUM	Yes	Yes	Yes	No
Focus	SPS and EHP Update Release Upgrade	SPS and EHP Update / Release Upgrade + HANA Migration	SPS and EHP Update Release Upgrade	SAP S/4HANA Conversion type, Upgrade type (SAP system upgrade), Update type (Enhancement package implementation, SPS Implementation), Migration type (Operating system and database migration, Unicode Conversion, Datacentre relocation)
Availability	General Availability. Invoke by checking the "nZDM" option in SUM	Available on request, customer message to SAP (component BC-UPG-TLS-TLA) is required. Functionality invoke by calling special parameter in file SAPup_add.par, eg: "/migrate/ask**** = 1" to activate Downtime-Optimized DMO mode.	Available on request, customer message to SAP (component BC-UPG-DTM-TLA) is required. Functionality invoke by calling special parameter in file SAPup_add.par	Service offered by SAP
Additional Cost	None	Low - Moderate There could be optional fees for productive support on request or service support for ramp up and cookbook optimization	Low - Moderate There could be optional fees for productive support on request or service support for ramp up and cookbook optimization	High Depends on customer specific scenario. Services will be on a project based approach where SAP will be involved throughout the project.
Supported SAP ABAP Products	All Business Suite, NW, BW. Refer to note 1678565 - Prerequisites, Terms and Conditions for nZDM/SUM and 1678564 - Restrictions, Database-specific Settings, and Troubleshooting of nZDM for SUM for detailed info.	Only SAP Business Suite systems currently.	ERP, CRM, NW with minimum start and target release. Refer to note 2163060 - Prerequisites and Restrictions of Zero Downtime Option of SUM for detailed info and supported Database version. Currently, NW 750 (e.g. EHP8) is only "available on project basis" which means that either SAP Consulting or Premium Engagement have to be involved into the upgrade project. *BW/ Embedded BW is not supported as for now.	Probably all SAP products.
Considerations	Increase of database footprint for shadow repository. Thorough testing and multiple rehearsals are recommended to avoid data loss.	Increase of database footprint for shadow repository. DMIS addon required. Thorough testing and multiple rehearsals are recommended to avoid data loss.	Increase of database footprint for shadow repository. Thorough testing and multiple rehearsals are recommended to avoid data loss.	Subject to customer specific scenario, probably additional HW for clone approach.
Technical Downtime	Further reduction of the business downtime compared to normal SUM functionality because most of the big application tables are updated during uptime using changed, recorded and replayed technique.	Downtime is further minimized where most changes are recorded and migrated to the target database during uptime. When downtime starts, remaining delta of the application tables are migrated as well as the tables that have not been triggered.	Zero technical downtime. Probably just a single restart for user load transition from bridge subsystem back to original production instance.	Subject to agreement with SAP based on customer specific scenario.
Reference	https://blogs.sap.com/2012/10/12/near-zero-downtime-maintenance-for-sap-business-suite-systems/	https://blogs.sap.com/2014/09/08/dmo-downtime-optimization-by-migrating-app-tables-during-uptime-preview	https://blogs.sap.com/2014/07/02/zero-downtime-option-for-software-update-manager-is-available-soon	SAP Note 693168 - Minimized Downtime Service (MDS)