CLAIMS

1. A computer-implemented method for performing live updates, the method comprising:

determining a migration type for a live migration to be performed from a source server to a target server;

performing the live migration from the source server to the target server;

based on the migration type, maintaining pages to be migrated;

tracking modifications in a hypervisor page table; and

performing a back-migration based on the migration type, wherein tracking the modifications comprises using a modification-after-migration (MAM) bit to indicate pages that have been modified.

2. The computer-implemented method of claim 1, further comprising tracking modifications during the live migration in a hypervisor table of the target server.

3. The computer-implemented method of claim 2, further comprising tracking modifications occurring after the live migration is completed in a second hypervisor table of the target server.

4. The computer-implemented method of claim 1, further comprising determining whether the migration type is a permanent migration or a temporary migration.

5. The computer-implemented method of claim 4, responsive to determining the migration type is a permanent migration, freeing page memory of the source server associated with the permanent migration.

6. The computer-implemented method of claim 1, wherein the back-migration only transmits changes in the hypervisor table indicated by the MAM bit, wherein the changes are combined with the pages that are maintained in the source server.

7. A system, comprising: one or more processors; and at least one memory coupled to the one or more processors, wherein the one or more processors are configured to:

determine a migration type for a live migration to be performed from a source server to a target server;

perform the live migration from the source server to the target server;

based on the migration type, maintain pages to be migrated;

track modifications in a hypervisor page table; and

perform a back-migration based on the migration type, wherein tracking the modifications comprises using a modification-after-migration (MAM) bit to indicate pages that have been modified.

8. The system of claim 7, wherein the one or more processors are configured to track modifications during the live migration in a hypervisor table of the target server.

9. The system of claim 8, wherein the one or more processors are configured to track modifications occurring after the live migration is completed in a second hypervisor table of the target server.

10. The system of claim 7, wherein the one or more processors are configured to determine whether the migration type is a permanent migration or a temporary migration.

11. The system of claim 10, responsive to determining the migration type is a permanent migration, the one or more processors are configured to free page memory of the source server associated with the permanent migration.

12. The system of claim 7, wherein the back-migration only transmits changes in the hypervisor table indicated by the MAM bit, wherein the changes are combined with the pages that are maintained in the source server.

13. A computer program product for performing live updates, the computer program product comprising: a computer-readable storage medium having stored thereon program instructions executable by a processor to cause the processor to:

determine a migration type for a live migration to be performed from a source server to a target server;

perform the live migration from the source server to the target server;

based on the migration type, maintain pages to be migrated;

tracking modifications in a hypervisor page table; and

perform a back-migration based on the migration type, wherein tracking the modifications uses a modification-after-migration (MAM) bit to indicate pages that have been modified.

14. The computer program product of claim 13, wherein the instructions are further executable by the processor to cause the processor to track modifications during the live migration in a hypervisor table of the target server.

15. The computer program product of claim 14, wherein the instructions are further executable by the processor to cause the processor to track modifications occurring after the live migration is completed in a second hypervisor table of the target server.

16. The computer program product of claim 13, wherein the instructions are further executable by the processor to cause the processor to determine whether the migration type is a permanent migration or a temporary migration.

17. The computer program product of claim 14, wherein the instructions are further executable by the processor to cause the processor to responsive to determining the migration type is a permanent migration, free page memory of the source server associated with the permanent migration.

18. The computer program product of claim 13, wherein the back-migration only transmits changes in the hypervisor table indicated by the MAM bit, wherein the changes are combined with the pages that are maintained in the source server.