Software Upgrade Matrix for NCS 2000 Series

First Published: 2016-11-22

Last Modified: 2026-07-15

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This table lists the upgrade paths supported for Cisco NCS 2000 series.

Note The upgrade matrix contains the recommended upgrade paths. It is possible to upgrade to a release through a shorter upgrade path instead of multiple paths. The matrix does not include this shorter path, as this is not tested.

Note NCS2K-S, NCS2K-F, and NCS2K-L packages are not supported in ONS 15454 M12 during upgrade from any release preceding to R11.x and later.

Release	Upgrade options
R9.6.0.7 (SONET or SDH) MSTP	R10.1.x.x (NCS fixed-grid)
R9.8.1.1 (SONET or SDH) MSTP	
R9.6.1.3 (SONET or SDH) MSTP	R10.5.2.6 (NCS fixed-grid), R10.6.1.1 (NCS fixed-grid), R10.6.2 (NCS fixed-grid), R10.7 (NCS fixed-grid), R10.7.0.1 (NCS fixed-grid), R10.8 (NCS fixed-grid), R10.9 (NCS fixed-grid), R11.0 (NCS fixed-grid)[1]
R9.8.1.3 (SONET or SDH) MSTP	R10.5.2.6 (NCS fixed-grid), R10.6.1.1(NCS fixed-grid), R10.6.2 (NCS fixed-grid), R10.7 (NCS fixed-grid), R10.7.0.1 (NCS fixed-grid), R11.0 (NCS fixed-grid)
R10.0.1.x (SONET or SDH) MSTP	R10.1.x.x (NCS fixed-grid), 10.3.x.x (NCS fixed-grid), 10.5.x.x (NCS fixed-grid), 10.6.1.1 (NCS fixed-grid)
R10.0.2 (SONET or SDH) MSTP	
R10.1.0.2 (SONET or SDH) MSTP	10.6.1.1 (NCS fixed-grid, flex)[1]
R10.3.0.2 (SONET or SDH) MSTP	10.7.0.1 (fixed-grid), 11.0 (fixed-grid)
R10.5.0 (SONET or SDH) MSTP	10.7.0.1 (fixed-grid), 11.0 (fixed-grid)

Release	Upgrade options
R10.5.2.7 (SONET or SDH) MSTP	10.8(NCS fixed-grid), 10.7.0.1 (fixed-grid), 10.9 (fixed-grid), 11.0 (fixed-grid)
R10.6.0.1 (SONET or SDH) MSTP	10.7.0.1 (NCS fixed-grid), 10.7.0.2 (NCS fixed-grid)
R10.6.1 (SONET or SDH) MSTP	10.6.2 (NCS fixed-grid), 10.8 (fixed-grid), 10.7.0.1 (NCS fixed-grid), 10.9 (fixed-grid), 11.0 (fixed-grid)
R10.6.1.1 (SONET or SDH) MSTP	10.6.1.2 (NCS fixed-grid)[2] , 10.7.0.1 (NCS fixed-grid)
R10.6.2 (SONET or SDH) MSTP	10.8 (NCS fixed-grid), 10.7.0.1 (NCS fixed-grid), 10.7.0.2 (NCS fixed-grid), 10.9 (NCS fixed-grid), 11.0 (NCS fixed-grid), 11.1 (NCS fixed-grid)
R10.7 (SONET or SDH) MSTP	10.8 (NCS fixed-grid), 10.9 (NCS fixed-grid), 11.0 (NCS fixed-grid)
R10.7.0.1 (SONET or SDH) MSTP	10.9 (NCS fixed-grid)
R10.7.0.2 (SONET or SDH) MSTP	11.0 (NCS fixed-grid), 11.1 (NCS fixed-grid)
R10.8 (SONET or SDH) MSTP	10.9 (NCS fixed-grid), 11.0 (NCS fixed-grid), 11.1(NCS fixed-grid)
R10.9 (SONET or SDH) MSTP	10.9.0.1 (NCS fixed-grid), 10.9.0.2 (NCS fixed-grid), 11.0 (NCS fixed-grid), 11.1(NCS fixed-grid)
R11.0 (SONET or SDH) MSTP	11.1 (NCS fixed-grid)
R10.0.x (NCS fixed-grid, flex)	R10.1.x (NCS fixed-grid, flex) [3], 10.3.x.x (NCS fixed-grid, flex) [2], 10.5.x.x (NCS fixed-grid, flex)[2]
R10.1.x (NCS fixed-grid, flex)	R10.3.x.x (NCS fixed-grid, flex)[2] , 10.5.x.x (NCS fixed-grid, flex)[2], 10.6.1.1 (fixed-grid, flex) [2]
R10.3.x.x (NCS fixed-grid, flex)	10.5.x.x (NCS fixed-grid, flex)[2]
R10.3.0.2 (NCS flex)	10.5.2.7 (NCS flex) [2], 10.7.0.1 (NCS SSON), 11.0 (NCS SSON)
R10.3.0.2 (NCS fixed-grid, flex)	10.6.2 (NCS fixed-grid, flex)[2], 10.7 (NCS fixed-grid, flex)[2], 10.7.0.1 (NCS fixed-grid, flex)[2], 11.0 (NCS fixed-grid, flex)[2]
R10.5.0 (NCS fixed-grid, flex)	10.6.1.1 (NCS fixed-grid, flex) [2], 10.6.2 (NCS fixed-grid, flex), 10.7 (NCS fixed-grid, flex)[2], R10.7.0.1 (NCS fixed-grid, flex) [2], 11.0 (NCS fixed-grid, flex)[2]
R10.5.0 (NCS flex)	11.0 (NCS SSON)
R10.5.x.x (NCS fixed-grid, flex)	10.5.2.7 (NCS flex)[2], 10.6.1 (NCS fixed-grid, flex)[2]

Release	Upgrade options
R10.5.2	10.6.1.1 (NCS fixed-grid, flex) [2]
R10.5.2.4 (NCS fixed-grid, flex)	10.5.2.7 (NCS flex)[2] , 10.6.1 (NCS fixed-grid, flex)[2], 10.8 (NCS fixed-grid, flex) [2], 10.9 (NCS fixed-grid, flex)[2]
R10.5.2.7(NCS fixed-grid, flex)	10.6.1.1 (NCS fixed-grid, flex)[2], 10.6.2 (NCS fixed-grid, flex) [2], 10.7 (NCS fixed-grid, flex)[2], 10.7.0.1 (NCS fixed-grid, flex)[2] , 10.8 (NCS fixed-grid, flex) [2], 10.9 (NCS fixed-grid, flex)[2], 11.0 (NCS fixed-grid, flex)[2]
R10.5.2.7 (NCS flex)	10.8 (NCS SSON), 10.9 (NCS SSON), 11.0 (NCS SSON)
R10.6.0.1 (NCS fixed-grid, flex)	10.7.0.1 (NCS fixed-grid, flex)[2], 10.7.0.2 (NCS fixed-grid, flex)[2]
R10.6.0.1 (NCS flex)	10.7.0.2 (NCS SSON)
R10.6.1 (NCS fixed-grid, flex)	10.6.2 (NCS fixed-grid, flex) [2], 10.7.0.1 (NCS fixed-grid, flex)[2] , 10.8 (NCS fixed-grid, flex)[2], 10.9 (NCS flex)[2], 11.0 (NCS fixed-grid, flex)[2]
R10.6.1 (NCS flex)	10.8 (NCS SSON), 10.9 (NCS SSON), 11.0 (NCS SSON)
R10.6.1.1 (NCS fixed-grid, flex)	10.7 (NCS fixed-grid, flex) [2], 10.7.0.1 (NCS fixed-grid, flex)[2] , 10.8 (NCS fixed-grid, flex)
R10.6.1.1 (NCS flex)	10.7.0.1 (NCS SSON)
R10.6.2 (NCS fixed-grid, flex)	10.7 (NCS fixed-grid, flex)[2], 10.7.0.1 (NCS fixed-grid, flex)[2] , 10.7.0.2 (NCS fixed-grid, flex)[2], 10.8 (NCS fixed-grid, flex)[2], 10.9 (NCS fixed-grid, flex)[2], 10.9.0.1 (NCS fixed-grid, flex)[2], 10.9.0.2 (NCS fixed-grid, flex)[2], 11.0 (NCS fixed-grid, flex)[2], 11.1 (NCS fixed-grid, flex)[2], 11.1.1.2 (NCS fixed-grid, flex)
R10.6.2 (NCS flex)	10.7.0.2 (NCS SSON), 10.8 (NCS SSON), 10.9 (NCS SSON), 10.9.0.1 (NCS SSON), 10.9.0.2 (NCS SSON), 11.0 (NCS SSON), 11.1.1.2 (NCS SSON), 11.12 (NCS SSON), 11.1.2.3 (NCS flex), 11.1.2.3 (NCS SSON), 11.13 (NCS flex, SSON)
R10.7 (NCS fixed-grid, flex)[4]	10.8 (NCS fixed-grid, flex) [2], 10.9 (NCS fixed-grid, flex)[2] , 11.0 (NCS fixed-grid, flex)[2]
R10.7 (NCS flex, SSON)	10.8 (NCS SSON), 10.9 (NCS SSON), 11.0 (NCS SSON)

Release	Upgrade options
R10.7.0.1 (NCS fixed-grid, flex)	10.9 (NCS fixed-grid, flex)[2]
R10.7.0.1 (NCS flex, SSON)	10.9 (NCS SSON)
R10.7.0.2 (NCS fixed-grid, flex)	11.0 (NCS fixed-grid, flex)[2], 11.1 (NCS fixed-grid, flex)[2], 11.1.1.2 (NCS fixed-grid, flex)[2], 11.12 (NCS fixed-grid, flex)[2]
R10.7.0.2 (NCS flex, SSON)	11.0 (NCS SSON), 11.1.1.2 (NCS SSON), 11.12 (NCS SSON)
R10.8 (NCS fixed-grid, flex)	10.9 (NCS fixed-grid, flex)[2], 10.9.0.1 (NCS fixed-grid, flex)[2], 10.9.0.2 (NCS fixed-grid, flex)[2], 11.0 (NCS fixed-grid, flex) [2], 11.1 (NCS fixed-grid, flex)[2]
R10.8 (NCS flex, SSON)	10.9 (NCS SSON), 10.9.0.1 (NCS SSON),10.9.0.2 (NCS SSON), 11.0 (NCS SSON)
R10.9 (NCS fixed-grid)	10.9.0.1 (NCS fixed-grid, flex)[2], 10.9.0.2 (NCS fixed-grid, flex)[2], 11.0 (NCS fixed-grid, flex)[2], 11.1 (NCS fixed-grid, flex)[2], 11.1.1.2 (NCS fixed-grid, flex)[2], 11.12 (NCS fixed-grid)[2]
R10.9.0.2 (NCS flex)	11.13 (NCS flex)
R10.902 (NCS flex, SSON)	11.12 (NCS SSON)
R10.902 (NCS fixed-grid, flex)	11.12 (NCS fixed-grid, flex)
R11.0 (NCS fixed-grid, flex)	11.1 (NCS fixed-grid, flex)[2] , 11.1.1.2 (NCS fixed-grid, flex)[2]
R11.1.1.2 (NCS fixed-grid, flex)	11.12 (NCS fixed-grid, flex), 11.13 (NCS fixed-grid, flex)
R11.1.1.2 (NCS flex, SSON)	11.12 (NCS SSON), 11.1.2.3 (NCS flex), 11.1.2.3 (NCS SSON), 11.1.1.4 (NCS SSON), 11.13 (NCS flex, SSON)
R11.1.1.4 (NCS SSON)	11.13 (NCS SSON)
R11.1.2 (NCS flex, SSON)	11.1.2.3 (NCS flex), 11.1.2.3 (NCS SSON)
R11.1.2 (NCS flex, SSON)	11.1.2.4 (NCS flex), 11.1.2.4 (NCS SSON), 11.13 (NCS flex, SSON)
R11.1.2 (NCS fixed-grid, flex)	11.13 (NCS fixed-grid, flex)
R11.1.2.3 (NCS fixed-grid, flex)	11.13 (NCS fixed-grid, flex)
R11.1.2.3 (NCS SSON)	11.13 (NCS SSON)

Release	Upgrade options
R11.1.2.3 (NCS flex)	11.13 (NCS flex, SSON)
R10.6.2 (NCS flex, SSON)	11.1.3.1 (NCS flex, SSON)
R10.902 (NCS flex, SSON)	11.1.3.1 (NCS flex, SSON)
R11.1.1.2 (NCS flex, SSON)	11.1.3.1 (NCS flex, SSON)
R11.1.1.2 (NCS fixed-grid)	11.1.3.1 (NCS fixed-grid)
R11.12 (NCS fixed-grid)	11.1.3.1 (NCS fixed-grid)
R11.12 (NCS flex, SSON)	11.1.3.1 (NCS flex, SSON)
R11.1.2.3 (NCS flex, SSON)	11.1.3.1 (NCS flex, SSON)
R11.1.2.3 (NCS fixed-grid)	11.1.3.1 (NCS fixed-grid)
R11.13 (NCS flex, SSON)	11.1.3.1 (NCS flex, SSON)
R11.13 (NCS fixed-grid)	11.1.3.1 (NCS fixed-grid)
R11.1.1.4 (NCS SSON)	11.1.3.1 (NCS SSON)
R11.12 (NCS fixed-grid)	11.1.3.2 (NCS fixed-grid)
R11.12 (NCS SSON)	11.1.3.2 (NCS SSON)
R11.12 (NCS flex)	11.1.3.2 (NCS flex)
R11.12 (NCS flex)	11.1.3.2 (NCS SSON)
R11.1.2.3 (NCS flex)	11.1.3.2 (NCS SSON)
R11.1.2.3 (NCS SSON)	11.1.3.2 (NCS SSON)
R11.1.2.3 (NCS flex)	11.1.3.2 (NCS flex)
R11.1.2.3 (NCS fixed-grid)	11.1.3.2 (NCS fixed-grid)
R11.13 (NCS flex)	11.1.3.2 (NCS flex)
R11.13 (NCS flex)	11.1.3.2 (NCS SSON)
R11.13 (NCS SSON)	11.1.3.2 (NCS SSON)
R11.13 (NCS fixed-grid)	11.1.3.2 (NCS fixed-grid)
R11.1.1.4 (NCS SSON)	11.1.3.2 (NCS SSON)
R11.1.1.4 (NCS flex)	11.1.3.2 (NCS flex)
R11.1.1.4 (NCS flex)	11.1.3.2 (NCS SSON)
11.1.3.1 (NCS SSON)	11.1.3.2 (NCS SSON)

Release	Upgrade options
11.1.3.1(NCS fixed-grid)	11.1.3.2 (NCS fixed-grid)
11.1.3.1 (NCS flex)	11.1.3.2 (NCS flex)
11.1.3.1 (NCS flex)	11.1.3.2 (NCS SSON)
R11.1.1.4 (NCS flex)	11.1.4.1 (NCS flex), 11.1.4.1 (NCS SSON)
R11.1.2 (DWDM)	11.1.4.1 (DWDM), 11.1.4.1 (WSON)
R11.1.2 (WSON)	11.1.4.1 (WSON), 11.1.4.1 (NCS-L)
R11.1.2 (NCS-L)	11.1.4.1 (NCS-L)
R11.1.2 (NCS-F)	11.1.4.1 (NCS-F), 11.1.4.1 (NCS SSON)
R11.1.2 (NCS SSON)	11.1.4.1 (NCS SSON)
R11.1.2.3 (NCS DWDM)	11.1.4.1 (DWDM), 11.1.4.1 (NCS WSON)
R11.1.2.3 (NCS WSON)	11.1.4.1 (WSON), 11.1.4.1 (NCS-L)
R11.1.2.3 (NCS-L)	11.1.4.1 (NCS-L)
R11.1.2.3 (NCS-F)	11.1.4.1 (NCS-F), 11.1.4.1 (NCS SSON)
R11.1.2.3 (NCS SSON)	11.1.4.1 (NCS SSON)
R11.1.3 (NCS DWDM)	11.1.4.1 (DWDM), 11.1.4.1 (NCS WSON)
R11.1.3 (NCS WSON)	11.1.4.1 (WSON), 11.1.4.1(NCS-L)
R11.1.3 (NCS-L)	11.1.4.1 (NCS-L)
R11.1.3 (NCS-F)	11.1.4.1 (NCS-F), 11.1.4.1 (NCS SSON)
R11.1.3 (NCS SSON)	11.1.4.1 (NCS SSON)
R11.1.3.2 (NCS DWDM)	11.1.4.1 (DWDM), 11.1.4.1 (NCS WSON)
R11.1.3.2 (NCS WSON)	11.1.4.1 (WSON), 11.1.4 .1(NCS NCS-L)
R11.1.3.2 (NCS-L)	11.1.4.1 (NCS-L)
R11.1.3.2 (NCS-F)	11.1.4.1 (NCS-F), 11.1.4.1 (NCS SSON)
R11.1.3.2 (NCS SSON)	11.1.4.1 (NCS SSON)

[1] The shelf with WSE card must not be directly upgraded from R9.x to R11.x; otherwise, the WSE card will not boot.

[2] Upgrade from R10.6.1.1 to R10.6.1.2 is supported only for WSON and DWDM.

[3] Upgrades are possible from a fixed-grid NCS node to a fixed-grid NCS node only; similarly from a flex NCS node to a flex NCS node. Upgrades are not supported from a flex node to a fixed -grid node or vice versa and MSTP node to flex node or vice versa.

[4] Upgrade from R10.7.0.1 to R10.8 is not supported.

For information on supported upgrade paths to 12.x releases, see the corresponding release notes at this URL.

Table 1: Upgrade paths to Cisco Optical Site Manager based releases

Release	Upgrade options
R11.1.2.3 (NCS SSON)	25.1.1 (NCS SSON)
R11.1.3 (NCS SSON)	25.1.1 (NCS SSON)
R11.1.3.2 (NCS SSON)	25.1.1 (NCS SSON)
R11.1.1.2 (NCS SSON)	25.1.1 (NCS SSON)
R11.1.1.4 (NCS SSON)[5]	25.1.1 (NCS SSON)
R12.3.1 SVO	25.1.1 SVO

[5] Upgrade to R11.1.3 or R11.1.3.2, and then upgrade to R25.1.1.

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