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Network Element Defaults



Note The terms “Unidirectional Path Switched Ring” and “UPSR” may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as “Path Protected Mesh Network” and “PPMN”, refer generally to Cisco's path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

This document describes the factory-configured (default) network element (NE) settings for the Cisco ONS 15454 and Cisco NCS 2000 series platforms. It includes descriptions of card, node, and Cisco Transport Controller (CTC) default settings. To import, export, or edit the settings, see the chapter “Maintain the Node” in the Network Configuration Guide. Cards supported by this platform that are not listed in this document are not supported by user-configurable NE defaults settings.



Note Unless otherwise specified, in this document “ONS 15454” refers to both ANSI (ONS 15454 SONET) and ETSI (ONS 15454 SDH) shelf assemblies.

Network Element Defaults Description

The NE defaults are preinstalled on each Cisco ONS 15454 TCC2 and TCC2P, TCC3, TNC and TSC cards. Cisco also ships a file named 15454-defaults.txt (ANSI shelves) or 15454SDH-defaults.txt (ETSI shelves) on the CTC software CD in case you want to import the defaults onto existing TCC2/TCC2P/TCC3/TNC/TSC/TNCS cards. The NE defaults include card-level, CTC, and node-level defaults.



Note The TCC2/TCC2P/TCC3 cards are supported only on the Cisco ONS 15454 platform. The TNC/TSC cards are supported on the Cisco ONS 15454 M2 and Cisco ONS 15454 M6 platforms.

Manual card provisioning overrides default settings. Manual changes are those made using procedures in the chapters “Provision Transponder and Muxponder Cards” and “Change DWDM Card Settings” in the Line Card Configuration guide. If you use the CTC Defaults editor (on the node view Provisioning > Defaults tabs) or import a new defaults file, any changes to card or port settings that result only affect cards that are installed or preprovisioned after the defaults have changed.

Changes made manually to most node-level default settings override the current settings, whether default or provisioned. If you change node-level default settings, either by using the Defaults editor or by importing a new defaults file, the new defaults reprovision the node immediately for all settings except those relating to protection (1+1 bidirectional switching, 1+1 reversion time, 1+1 revertive, Bidirectional Line Switched Ring [BLSR] or multiplex section-shared protection ring [MS-SPRing] reversion time, BLSR/MS-SPRing ring revertive, BLSR/MS-SPRing span reversion time, BLSR/MS-SPRing span revertive, y cable revertive or reversion time, splitter revertive or reversion time). Settings relating to protection apply to subsequent provisioning.



Note Changing some node-level provisioning through NE defaults can cause CTC disconnection or a reboot of the node in order for the provisioning to take effect. Before you change a default, check in the Side Effects column of the Defaults editor (right-click a column header and select Show Column > Side Effects) and be prepared for the occurrence of any side effects listed for that default.

ANSI Card Defaults

The information in this section pertains to the default settings for each DWDM, Transponder (TXP), Muxponder (MXP), or Ethernet card. Cisco provides several types of user-configurable defaults for DWDM, TXP, MXP, and Ethernet cards. Types of card defaults can be broadly grouped by function, as outlined in the following subsections. For information about individual card settings, see the chapters “Provision Transponder and Muxponder Cards” and “Change DWDM Card Settings” in the Line Card Configuration guide.



Note When the card level defaults are changed, the new provisioning done after the defaults have changed is affected. Existing provisioning remains unaffected.

The following types of defaults are defined for DWDM, TXP, MXP, and Ethernet cards.

ANSI Configuration Defaults

Most card-level and port-level configuration defaults correspond to settings found in the CTC card-level Provisioning tabs.



Note The full set of Automatic Laser Shutdown (ALS) configuration defaults can be found in the CTC card-level Maintenance > ALS tab for supported cards. ALS defaults are supported for OSCM, OSC-CSM, OPT-BST, OPT-BST-L, ADM-10G, GE_XP, 10GE_XP, TXP, MXP, OTU2-XP, and PSM cards. For information on how ALS card settings achieve network level optical safety, see the chapters “Setup Optical Service Channel Cards”, “Optical Amplifier Cards”, or “Provision Transponder and Muxponder Cards” in the Line Card Configuration guide.

Configuration defaults that are reachable from the CTC card-level Provisioning tabs (except as noted) include the following types of options (arranged by CTC subtab):

- Line—(ADM-10G, GE_XP, 10GE_XP, TXP and MXP cards) Line-level configuration settings, including SONET, Wavelength Trunk, Trunk, Client, Distance Extension, and Enhanced FC/FICON ISL settings.



Note Some line configuration tabs, including Client, Distance Extension, and Enhanced FC/FICON ISL settings tabs, only appear in the card-level Provisioning > Line tab after a pluggable port module (PPM) is provisioned to a fibre channel payload type (port rate) for the particular card.

- OTN—(ADM-10G, GE_XP, 10GE_XP, MXP-2.5G-10E, MXP-2_5G-10G, MXP-MR-10DME, TXP-MR-10E, TXP-MR-10G, TXP-MR-2.5G, and TXPP-MR-2.5G cards) Optical transport network (OTN) line configuration settings.
- Card—(See listed settings for applicable cards)

- Card mode—MXPP-MR-2.5G and MXP-MR-2.5G (ESCON, FC_GE, or MIXED), GE_XP (20GE MXP, 10GE MXP, or L2 over DWDM), and 10GE_XP (10GE TXP or L2 over DWDM)
- Port range-level mode settings—MXP-MR-10DME cards only
- Termination mode—TXP-MR-10E, MXP-2.5G-10E, MXP-2.5G-10G, TXPP_MR_2.5G, TXP_MR_10G, and TXP_MR_2.5G cards
- AIS squelch settings—TXP-MR-10E and MXP-2.5G-10E cards
- ALS (card-level Maintenance > ALS tab)—(OSC-CSM, OSCM, OPT-BST, OPT-BST-L, ADM-10G, GE_XP, 10GE_XP, TXP, MXP, and PSM cards) ALS configuration defaults.



Note For further information about supported features on each card, see the chapters “Setup Optical Service Channel Cards”, “Optical Amplifier Cards”, or “Provision Transponder and Muxponder Cards” in the Line Card Configuration guide.

ANSI Threshold Defaults

Threshold default settings define the default cumulative values (thresholds) beyond which a threshold crossing alert (TCA) will be raised, making it possible to monitor the network and detect errors early.

Card threshold default settings are provided as follows:

- PM thresholds—(OSCM, OSC-CSM, OTU2-XP, TXP, and MXP cards) Expressed in counts or seconds; includes line and SONET thresholds.
- Optical thresholds—(ADM-10G, GE_XP, 10GE_XP, OTU2-XP, TXP, and MXP cards) Expressed in percentages or dBm; includes client and trunk optical thresholds.
- OTN FEC thresholds (ADM-10G, GE_XP, 10GE_XP, TXP, and MXP cards)—Expressed in counts; includes enhanced, standard, 1G Ethernet, 1G Fibre channel, 1G FICON, OC-3, OC-12, OC-48, 2G FICON, and 2G Fibre channel thresholds.
- OTN G.709 thresholds (ADM-10G, GE_XP, 10GE_XP, TXP, and MXP cards)—Expressed in counts or seconds; includes ITU-T G.709 PM and SM thresholds.

Threshold defaults are defined for near end and/or far end, at 15-minute and one-day intervals. Thresholds are further broken down by type, such as Multiplex Section, Regeneration Section, VC LO, MS, RS, or Path, for performance monitoring (PM) thresholds, and TCA (warning) or Alarm for physical thresholds. PM threshold types define the layer to which the threshold applies. Physical threshold types define the level of response expected when the threshold is crossed.



Note For full descriptions of the thresholds you can set for each card, see [Monitor Performance](#).



Note When LOS, LOS-P, or LOF alarms occur on transponder and muxponder trunks, ITU-T G.709 SONET/SDH TCAs are suppressed. For details, see [Alarm and TCA Monitoring and Management](#).



Note For additional information regarding PM parameter threshold defaults as defined by Telcordia specifications, refer to Telcordia GR-820-CORE and GR-253-CORE.

ANSI Defaults by Card

The card defaults are defined by the default name, its factory-configured value, and the domain of allowable values that you can assign to it.



Note When the card level defaults are changed, the new provisioning done after the defaults have changed is affected. Existing provisioning remains unaffected.



Note Some default values, such as certain thresholds, are interdependent. Before changing a value, review the domain for that default and any other related defaults for potential dependencies.

Access the links provided in the following table to open or download files containing NE Default information for ANSI cards.

Table 1: NE Defaults for ANSI Cards

Platforms	Links
Cisco ONS 15454	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/15454-SONET-NeDefaults.xlsx
Cisco ONS 15454 M12	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/15454-M12-SONET-NeDefaults.xlsx
Cisco ONS 15454 M2	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/15454-M2-SONET-NeDefaults.xlsx
Cisco ONS 15454 M6	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/15454-M6-SONET-NeDefaults.xlsx
Cisco ONS 15454 M15	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/15454-M15-SONET-NeDefaults.xlsx
NCS2002-F-SONET	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/NCS2002-F-SONET-NeDefaults.xlsx
NCS2002-L-SONET	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/NCS2002-L-SONET-NeDefaults.xlsx
NCS2006-F-SONET	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/NCS2006-F-SONET-NeDefaults.xlsx
NCS2006-L-SONET	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/NCS2006-L-SONET-NeDefaults.xlsx
NCS2015-F-SONET	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/NCS2015-F-SONET-NeDefaults.xlsx
NCS2015-L-SONET	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/NCS2015-L-SONET-NeDefaults.xlsx

ANSI Node Default Settings

Cisco provides the following types of user-configurable defaults for each node:



Note The node default settings described in this section are supported on the Cisco ONS 15454, Cisco ONS 15454 M6, Cisco ONS 15454 M2, Cisco NCS 2002, and NCS 2006 platforms unless noted otherwise.

- **Circuit settings**—Set the administrative state and path protection circuit defaults, and whether to have circuits send a payload defect indication condition (PDIP).
- **General settings**—Set general node management defaults, including whether to use Daylight Savings Time (DST), whether to insert Alarm Indication Signal VT (AIS-V) in each VT when the carrying STS crosses the signal degrade (SD) path bit error rate (BER) threshold, the IP address of the Network Time Protocol/Simple Network Time Protocol (NTP/SNTP) server to be used, the time zone where the node is located, the SD path BER value, the defaults description, whether to raise a condition on an empty card slot, whether automatic autonomous Transaction Language One (TL1) reporting of PM data is enabled for cross-connect paths on the node, whether or not to allow ports to be disabled when they are providing services (when the default is set to FALSE users must remove or disable the services first, then put the ports out of service), and whether to report loopback conditions on Out-of-Service, Maintenance (OOS-MT) state ports.
- **Link Management Protocol settings**—Set link management protocol data link type, traffic engineering link, and general settings.
- **Power Monitor settings**—Set default voltage thresholds for the node.
- **Network settings**—Set whether to prevent display of node IP addresses in CTC (applicable for all users except Superusers); default gateway node type; whether to raise an alarm when the backplane LAN cable is disconnected; and whether to display the IP address in the LCD in an editable mode (in which you can change the IP address directly from LCD screen), to display the IP address on the LCD as read-only, or to suppress display of the IP on the LCD entirely.
- **OSI settings**—Set the Open System Interconnection (OSI) main setup, generic routing encapsulation (GRE) tunnel, link access protocol on the D channel (LAP-D), the router subnet, and the TID address resolution protocol (TARP) settings.
- **1+1 and Optimized 1+1 protection settings**—Set whether or not protected circuits have bidirectional switching, are revertive, and what the reversion time is; set optimized 1+1 detection, recovery, and verify guard timer values.



Note Optimized 1+1 supports three timers that ensure the correct state of the cards at key points in card communication. A verification guard timer is used when a Force is issued, to ensure that the far end has a chance to respond. A detection guard timer is used to ensure the presence of an SF/SD condition before switching away from a card. A recover guard timer ensures the absence of SF/SD prior to switching to a card. You can change the default number of seconds before these timers expire by changing the NE default for the corresponding timer to a value within its domain of allowable values.

- **BLSR protection settings**—Set whether BLSR-protected circuits are revertive, and what the reversion time is, at both the ring and span levels.
- **Y Cable protection settings**—Set whether Y-cable protected circuits are revertive, and what the reversion time is.
- **Splitter protection settings**—Set whether splitter protected circuits are revertive, and what the reversion time is.
- **Legal Disclaimer**—Set the legal disclaimer that warns users at the login screen about the possible legal or contractual ramifications of accessing equipment, systems, or networks without authorization.
- **Security Grant Permissions**—Set default user security levels for activating/reverting software, PM data clearing, database restoring, and retrieving audit logs.
- **Security DataComm settings**—Set default security settings for TCC Ethernet IP address and IP netmask, and CTC backplane IP suppression; set secure mode on and secure mode locked (for TCC2P cards only).
- **Security Access settings**—Set default security settings for LAN access, shell access, serial craft access, element management system (EMS) access (including Internet Inter-Object Request Broker Protocol [IIOP] listener port number), TL1 access, and Simple Network Management Protocol (SNMP) access.
- **Security RADIUS settings**—Set default RADIUS server settings for the accounting port number and the authentication port number, and whether to enable the node as a final authenticator.
- **Security Policy settings**—Set the allowable failed logins before lockout, idle user timeout for each user level, optional lockout duration or manual unlock enabled, password reuse and change frequency policies, number of characters difference that is required between the old and new password, password aging by security level, enforced single concurrent session per user, and option to disable inactive user after a set inactivity period.
- **Security Password settings**—Set when passwords can be changed, how many characters they must differ by, whether or not password reuse is allowed, and whether a password change is required on first login to a new account; set password aging

enforcement and user-level specific aging and warning periods; set how many consecutive identical characters are allowed in a password, maximum password length, minimum password length, minimum number and combination of non alphabetical characters required, and whether or not to allow a password that is a reversal of the login ID associated with the password.

- BITS Timing settings—Set the AIS threshold, Admin synchronization status messaging (SSM), coding, facility type, framing, state, and line build-out (LBO) settings for building integrated timing supply 1 (BITS-1) and BITS2 timing.
- General Timing settings—Set the mode (External, Line, or Mixed), quality of reserved (RES) timing (the rule that defines the order of clock quality from lowest to highest), revertive, reversion time, and SSM message set for node timing.



Note Any node level defaults changed using the **Provisioning > Defaults** tab, changes existing node level provisioning. Although this is service affecting, it depends on the type of defaults changed, for example, general, and all timing and security attributes. The “Changing default values for some node level attributes overrides the current provisioning.” message is displayed. The Side Effects column of the Defaults editor (right-click a column header and select Show Column > Side Effects) explains the effect of changing the default values. However, when the card level defaults are changed using the **Provisioning > Defaults** tab, existing card provisioning remains unaffected.

Time Zones

The following table lists the time zones that apply for node time zone defaults. Time zones in the table are ordered by their relative relationships to Greenwich Mean Time (GMT), and the default values are displayed in the correct format for valid default input.

Table 2: Time Zones

Time Zone (GMT +/- Hours)	Default Value
GMT-11:00	(GMT-11:00) Midway Islands, Samoa
GMT-10:00	(GMT-10:00) Hawaiian Islands, Tahiti
GMT-09:00	(GMT-09:00) Anchorage - Alaska
GMT-08:00	(GMT-08:00) Pacific Time (US & Canada), Tijuana
GMT-07:00	(GMT-07:00) Mountain Time (US & Canada)
GMT-07:00	(GMT-07:00) Phoenix - Arizona
GMT-06:00	(GMT-06:00) Central Time (US & Canada)
GMT-06:00	(GMT-06:00) Mexico City
GMT-06:00	(GMT-06:00) Costa Rica, Managua, San Salvador
GMT-06:00	(GMT-06:00) Saskatchewan
GMT-05:00	(GMT-05:00) Bogota, Lima, Quito
GMT-05:00	(GMT-05:00) Eastern Time (US & Canada)
GMT-05:00	(GMT-05:00) Havana
GMT-05:00	(GMT-05:00) Indiana (US)

Time Zone (GMT +/- Hours)	Default Value
GMT-04:00	(GMT-04:00) Asuncion
GMT-04:00	(GMT-04:00) Caracas, La Paz, San Juan
GMT-04:00	(GMT-04:00) Atlantic Time (Canada), Halifax, Saint John, Charlottetown
GMT-04:00	(GMT-04:00) Santiago
GMT-04:00	(GMT-04:00) Thule (Qaanaaq)
GMT-03:30	(GMT-03:30) St. John's - Newfoundland
GMT-03:00	(GMT-03:00) Brasilia, Rio de Janeiro, Sao Paulo
GMT-03:00	(GMT-03:00) Buenos Aires, Georgetown
GMT-03:00	(GMT-03:00) Godthab (Nuuk) - Greenland
GMT-02:00	(GMT-02:00) Mid-Atlantic
GMT-01:00	(GMT-01:00) Azores, Scoresbysund
GMT-01:00	(GMT-01:00) Praia - Cape Verde
GMT 00:00	(GMT 00:00) Casablanca, Reykjavik, Monrovia
GMT	(GMT) Greenwich Mean Time
GMT 00:00	(GMT 00:00) Dublin, Edinburgh, London, Lisbon
GMT+01:00	(GMT+01:00) Amsterdam, Berlin, Rome, Stockholm, Paris
GMT+01:00	(GMT+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague
GMT+01:00	(GMT+01:00) Brussels, Copenhagen, Madrid, Vienna
GMT+01:00	(GMT+01:00) Sarajevo, Skopje, Sofija, Vilnius, Warsaw, Zagreb
GMT+01:00	(GMT+01:00) West Central Africa, Algiers, Lagos, Luanda
GMT+01:00	(GMT+01:00) Windhoek (Namibia)
GMT+02:00	(GMT+02:00) Al Jizah, Alexandria, Cairo
GMT+02:00	(GMT+02:00) Amman
GMT+02:00	(GMT+02:00) Athens, Bucharest, Istanbul
GMT+02:00	(GMT+02:00) Beirut
GMT+02:00	(GMT+02:00) Cape Town, Harare, Johannesburg, Pretoria
GMT+02:00	(GMT+02:00) Jerusalem
GMT+02:00	(GMT+02:00) Kaliningrad, Minsk

Time Zone (GMT +/- Hours)	Default Value
GMT+03:00	(GMT+03:00) Aden, Antananarivo, Khartoum, Nairobi
GMT+03:00	(GMT+03:00) Baghdad
GMT+03:00	(GMT+03:00) Kuwait, Riyadh
GMT+03:00	(GMT+03:00) Moscow, St. Petersburg, Novgorod
GMT+03:30	(GMT+03:30) Tehran
GMT+04:00	(GMT+04:00) Abu Dhabi, Mauritius, Muscat
GMT+04:00	(GMT+04:00) Aqtau, T'bilisi
GMT+04:00	(GMT+04:00) Baku
GMT+04:00	(GMT+04:00) Yerevan, Samara
GMT+04:30	(GMT+04:30) Kabul
GMT+05:00	(GMT+05:00) Chelyabinsk, Prem, Yekaterinburg, Ufa
GMT+05:00	(GMT+05:00) Islamabad, Karachi, Tashkent
GMT+05:30	(GMT+05:30) Calcutta, Mumbai, New Delhi, Chennai
GMT+05:45	(GMT+05:45) Kathmandu
GMT+06:00	(GMT+06:00) Almaty
GMT+06:00	(GMT+06:00) Colombo, Dhaka, Astana
GMT+06:00	(GMT+06:00) Novosibirsk, Omsk
GMT+06:30	(GMT+06:30) Cocos, Rangoon
GMT+07:00	(GMT+07:00) Bangkok, Hanoi, Jakarta
GMT+07:00	(GMT+07:00) Krasnoyarsk, Norilsk, Novokuznetsk
GMT+08:00	(GMT+08:00) Irkutsk, Ulaan Bataar
GMT+08:00	(GMT+08:00) Beijing, Shanghai, Hong Kong, Urumqi
GMT+08:00	(GMT+08:00) Perth
GMT+08:00	(GMT+08:00) Singapore, Manila, Taipei, Kuala Lumpur
GMT+09:00	(GMT+09:00) Chita, Yakutsk
GMT+09:00	(GMT+09:00) Osaka, Sapporo, Tokyo
GMT+09:00	(GMT+09:00) Palau, Pyongyang, Seoul
GMT+09:30	(GMT+09:30) Adelaide, Broken Hill

Time Zone (GMT +/- Hours)	Default Value
GMT+09:30	(GMT+09:30) Darwin
GMT+10:00	(GMT+10:00) Brisbane, Port Moresby, Guam
GMT+10:00	(GMT+10:00) Canberra, Melbourne, Sydney
GMT+10:00	(GMT+10:00) Hobart
GMT+10:00	(GMT+10:00) Khabarovsk, Vladivostok
GMT+10:30	(GMT+10:30) Lord Howe Island
GMT+11:00	(GMT+11:00) Honiara, Magadan, Solomon Islands
GMT+11:00	(GMT+11:00) Noumea - New Caledonia
GMT+11:30	(GMT+11:30) Kingston - Norfolk Island
GMT+12:00	(GMT+12:00) Andryra, Kamchatka
GMT+12:00	(GMT+12:00) Auckland, Wellington
GMT+12:00	(GMT+12:00) Marshall Islands, Eniwetok
GMT+12:00	(GMT+12:00) Suva - Fiji
GMT+12:45	(GMT+12:45) Chatham Island
GMT+13:00	(GMT+13:00) Nuku'alofa - Tonga
GMT+13:00	(GMT+13:00) Rawaki, Phoenix Islands
GMT+14:00	(GMT+14:00) Line Islands, Kiritimati - Kiribati

CTC Default Settings

The following table lists the CTC-level default settings for the Cisco ONS 15454, Cisco ONS 15454 M2, Cisco ONS 15454 M6, Cisco NCS 2002, and NCS 2006. Cisco provides the following user-configurable defaults for CTC:

- Automatic Routing—Set circuit creation with the Route Automatically check box selected by default.
- Network Circuit Automatic Routing Overridable—Set by default whether or not a user creating circuits can change (override) the Automatic Circuit Routing setting (also provisionable as a default) in the CTC Circuit Routing Preferences area. When this default is set to TRUE it enables users to change whether or not Route Automatically is selected in the check box. When this default is set to FALSE it ensures that users cannot change the Route Automatically setting while creating circuits in CTC.



Note When the Route Automatically check box is not selectable (and is not checked) during circuit creation, the following automatic routing suboptions are also unavailable: Using Required Nodes/Spans, Review Route Before Creation, and VT-DS3 Mapped Conversion.

- Create TL1-like—Set whether to create only TL1-like circuits; that is, instruct the node to create only cross-connects, allowing the resulting circuits to be in an upgradable state.
- Local domain creation and viewing—Set whether domains that users create and view persist globally (all CTC sessions), or only locally (within the current CTC session).
- Network Map—Set the default network map (which country’s map is displayed in CTC network view).

Table 3: CTC Default Settings

Default Name	Default Value	Default Domain
CTC.circuits.CreateLikeTL1	FALSE	TRUE, FALSE
CTC.circuits.RouteAutomatically	TRUE	TRUE, FALSE
CTC.circuits.RouteAutomaticallyDefaultOverridable	TRUE	TRUE, FALSE
CTC.network.Map	United States	-none-, Germany, Japan, Netherlands, South Korea, United Kingdom, United States

ETSI Card Defaults

This section lists the default settings for each DWDM, Transponder (TXP), Muxponder (MXP), or Ethernet card. Cisco provides several types of user-configurable defaults for Cisco DWDM, TXP, MXP, and Ethernet cards. Types of card defaults can be broadly grouped by function, as outlined in the following subsections. For information about individual card settings, see the chapters “Provision Transponder and Muxponder Cards” and “Change DWDM Card Settings” in the Network Configuration Guide.



Note When the card level defaults are changed, the new provisioning done after the defaults have changed is affected. Existing provisioning remains unaffected.

The following types of defaults are defined for DWDM, TXP, MXP, and Ethernet cards.

ETSI Configuration Defaults

Most card and port-level configuration defaults correspond to settings found in the CTC card-level Provisioning tabs.



Note The full set of Automatic Laser Shutdown (ALS) configuration defaults can be found in the CTC card-level Maintenance > ALS tab for supported cards. ALS defaults are supported for OSCM, OSC-CSM, OPT-BST, OPT-BST-L, GE_XP, 10GE_XP, TXP, and MXP cards. For information on how ALS card settings achieve network level optical safety, see the chapters “Setup Optical Service Channel Cards”, “Optical Amplifier Cards”, or “Provision Transponder and Muxponder Cards” in the Line Card Configuration guide.

Configuration defaults that are reachable from the CTC card-level Provisioning tabs (except as noted) include the following types of options (arranged by CTC subtab):

- Line—(GE_XP, 10GE_XP, TXP and MXP cards) Line-level configuration settings, including SONET, Wavelength Trunk, Trunk, Client, Distance Extension, and Enhanced FC/FICON ISL settings.



Note Some line configuration tabs, including Client, Distance Extension, and Enhanced FC/FICON ISL settings tabs, only appear in the card-level Provisioning > Line tab after a pluggable port module (PPM) is provisioned to a fibre channel payload type (port rate) for the particular card.

- OTN—(GE_XP, 10GE_XP, MXP-2.5G-10E, MXP-2_5G-10G, MXP-MR-10DME, TXP-MR-10E, TXP-MR-10G, TXP-MR-2.5G, and TXPP-MR-2.5G cards) Optical transport network (OTN) line configuration settings.
- Card—(See listed settings for applicable cards)
 - Card mode—MXPP-MR-2.5G and MXP-MR-2.5G (ESCON, FC_GE, or MIXED), GE_XP (20GE MXP, 10GE MXP, or L2 over DWDM), and 10GE_XP (10GE TXP or L2 over DWDM)
 - Port range-level mode settings—MXP-MR-10DME cards only
 - Termination mode—TXP-MR-10E, MXP-2.5G-10E, MXP-2.5G-10G, TXPP_MR_2.5G, TXP_MR_10G, and TXP_MR_2.5G cards
 - AIS squelch settings—TXP-MR-10E and MXP-2.5G-10E cards
- ALS (card-level Maintenance > ALS tab)—(OSC-CSM, OSCM, OPT-BST, OPT-BST-L, GE_XP, 10GE_XP, TXP, and MXP cards) ALS configuration defaults.



Note For further information about supported features on each card, see the chapters “Setup Optical Service Channel Cards”, “Optical Amplifier Cards”, or “Provision Transponder and Muxponder Cards” in the Line Card Configuration guide.

ETSI Threshold Defaults

Threshold default settings define the default cumulative values (thresholds) beyond which a threshold crossing alert (TCA) will be raised, making it possible to monitor the network and detect errors early.

Card threshold default settings are provided as follows:

- PM thresholds—(OSCM, OSC-CSM, TXP and MXP cards) Expressed in counts or seconds; includes line and SDH thresholds.
- Optical thresholds—(GE_XP, 10GE_XP, TXP, and MXP cards) Expressed in percentages or dBm; includes client and trunk optical thresholds.
- OTN FEC thresholds (GE_XP, 10GE_XP, TXP, and MXP cards)—Expressed in counts; includes enhanced, standard, 1G Ethernet, 1G Fibre channel, 1G FICON, STM-1, STM-4, STM-16, 2G FICON, and 2G Fibre channel thresholds.
- OTN G.709 thresholds (GE_XP, 10GE_XP, TXP, and MXP cards)—Expressed in counts or seconds; includes ITU-T G.709 PM and SM thresholds.

Threshold defaults are defined for near end and/or far end, at 15-minute and one-day intervals. Thresholds are further broken down by type, such as Multiplex Section, Regeneration Section, VC LO, MS, RS, or Path, for performance monitoring (PM) thresholds, and TCA (warning) or Alarm for physical thresholds. PM threshold types define the layer to which the threshold applies. Physical threshold types define the level of response expected when the threshold is crossed.



Note For full descriptions of the thresholds you can set for each card, see [Monitor Performance](#).



Note In R7.0.1, when LOS, LOS-P, or LOF alarms occur on TXP and MXP trunks, certain TCAs are suppressed. For details, see [Alarm and TCA Monitoring and Management](#).



Note For additional information regarding PM parameter threshold defaults as defined by Telcordia specifications, refer to Telcordia GR-820-CORE and GR-253-CORE.

ETSI Defaults by Card

The card defaults are defined by the default name, its factory-configured value, and the domain of allowable values that you can assign to it.



Note Some default values, such as certain thresholds, are interdependent. Before changing a value, review the domain for that default and any other related defaults for potential dependencies.

Access the links provided in the following table to open or download files containing NE Default information for ETSI cards.

Table 4: NE Defaults for ETSI Cards

Platforms	Links
Cisco ONS 15454	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/15454-SDH-NeDefaults.xlsx
Cisco ONS 15454 M2	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/15454-M2-SDH-NeDefaults.xlsx
Cisco ONS 15454 M6	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/15454-M6-SDH-NeDefaults.xlsx
Cisco ONS 15454 M12	www.cisco.com/c/dam/en/us/td/docs/optical/15000r10_0/ne_defaults/15454-M12-SDH-NeDefaults.xlsx
Cisco ONS 15454 M15	www.cisco.com/c/dam/en/us/td/docs/optical/15000r10_0/ne_defaults/15454-M15-SDH-NeDefaults.xlsx
NCS2002-F-SDH	www.cisco.com/c/dam/en/us/td/docs/optical/15000r10_0/ne_defaults/NCS2002-F-SDH-NeDefaults.xlsx
NCS2002-L-SDH	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/NCS2002-L-SDH-NeDefaults.xlsx
NCS2006-F-SDH	www.cisco.com/c/dam/en/us/td/docs/optical/15000r10_0/ne_defaults/NCS2006-F-SDH-NeDeafults.xlsx
NCS2006-L-SDH	www.cisco.com/en/US/docs/optical/15000r10_0/ne_defaults/NCS2006-L-SDH-NeDefaults.xlsx
NCS2015-F-SDH	www.cisco.com/c/dam/en/us/td/docs/optical/15000r10_0/ne_defaults/NCS2015-F-SDH-NeDeafults.xlsx
NCS2015-L-SDH	www.cisco.com/c/dam/en/us/td/docs/optical/15000r10_0/ne_defaults/NCS2015-L-SDH-NeDeafults.xlsx

ETSI Node Default Settings

The node-level default settings for the ETSI shelf assembly. Cisco provides the following types of user-configurable defaults for each node:



Note The node default settings described in this section are supported on the Cisco ONS 15454, Cisco ONS 15454 M6, Cisco ONS 15454 M2, Cisco NCS 2002, and NCS 2006 platforms, unless noted otherwise.

- Circuit settings—Set the administrative state, subnetwork connection protection (SNCP) circuit threshold levels for signal degradation and failure, SNCP reversion time, and whether SNCP circuits are revertive by default.
- General settings—Set general node management defaults, including whether to use Daylight Savings Time (DST), the IP address of the NTP/SNTP server to be used, the time zone where the node is located, the SD path BER value, whether automatic autonomous TL1 reporting of PM data is enabled for cross-connect paths on the node, whether or not to allow ports to be disabled when they are providing services (when the default is set to FALSE users must remove or disable the services first, then put the ports out of service), and the defaults description.
- Link Management Protocol settings—Set link management protocol data link type, traffic engineering link, and general settings.
- Power Monitor settings—Set default voltage thresholds for the node.
- Network settings—Set whether to prevent display of node IP addresses in CTC (applicable for all users except Superusers); default gateway node type; whether to raise an alarm when the backplane LAN cable is disconnected; and whether to display the IP address in the LCD in an editable mode (in which you can change the IP address directly from LCD screen), to display the IP address on the LCD as read-only, or to suppress display of the IP on the LCD entirely.
- OSI settings—Set the Open System Interconnection (OSI) main setup, generic routing encapsulation (GRE) tunnel default, the link access protocol on the D channel (LAP-D), the router subnet, and the TID address resolution protocol (TARP) settings.
- Linear Multiplex Section Protection (LMSP) settings—Set whether or not protected circuits have bidirectional switching, are revertive, and what the reversion time is.
- MS-SPRing protection settings—Set whether MS-SPRing-protected circuits are revertive, and what the reversion time is, at both the ring and span levels.
- Y Cable protection settings—Set whether Y-cable protected circuits are revertive, and what the reversion time is.
- Splitter protection settings—Set whether splitter protected circuits are revertive, and what the reversion time is.
- Legal Disclaimer—Set the legal disclaimer that warns users at the login screen about the possible legal or contractual ramifications of accessing equipment, systems, or networks without authorization.
- Security Grant Permissions—Set default user security levels for activating/reverting software, PM data clearing, database restoring, and retrieving audit logs.
- Security DataComm settings—Set default security settings for TCC Ethernet IP address and IP netmask, and CTC backplane IP suppression; set secure mode on and secure mode locked (for TCC2P cards only).
- Security Access settings—Set default security settings for LAN access, shell access, serial craft access, element management system (EMS) access (including Internet Inter-Object Request Broker Protocol [IIOP] listener port number), TL1 access, and SNMP access.
- Security RADIUS settings—Set default RADIUS server settings for the accounting port number and the authentication port number, and whether to enable the node as a final authenticator.
- Security Policy settings—Set the allowable failed logins before lockout, idle user timeout for each user level, optional lockout duration or manual unlock enabled, password reuse and change frequency policies, number of characters difference that is required between the old and new password, password aging by security level, enforced single concurrent session per user, and option to disable inactive user after a set inactivity period.
- Security Password settings—Set when passwords can be changed, how many characters they must differ by, whether or not password reuse is allowed, and whether a password change is required on first login to a new account; set password aging enforcement and user-level specific aging and warning periods; set how many consecutive identical characters are allowed in a password, maximum password length, minimum password length, minimum number and combination of non alphabetical characters required, and whether or not to allow a password that is a reversal of the login ID associated with the password.
- BITS Timing settings—Set the AIS threshold, Admin synchronization status messaging (SSM), coding, facility type, framing, state, and Sa bit (the overhead bit that will carry the SSM) for building integrated timing supply 1 (BITS-1) and BITS2 timing.
- General Timing settings—Set the mode (External, Line, or Mixed), revertive, and reversion time.



Note

Any node level defaults changed using the **Provisioning > Defaults** tab, changes existing node level provisioning. Although this is service affecting, it depends on the type of defaults changed, for example, general, and all timing and security attributes. The “Changing default values for some node level attributes overrides the current provisioning.” message is displayed. The Side Effects column of the Defaults editor (right-click a column header and select Show Column > Side Effects) explains the effect of changing the default values. However, when the card level defaults are changed using the **Provisioning > Defaults** tab, existing card provisioning remains unaffected.



Note

For more information about each individual node setting, see the chapter “Manage the Node” in the Network Configuration Guide.



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