

DeltaV Smart Switches Displace Cisco Switches

This whitepaper announces the status change of the Cisco switches sold for use within the DeltaV network.



The DeltaV Smart Switch displaces Cisco Switches as the Ethernet switch used in our network.

This document is intended as a guide for using the DeltaV Smart Switches as replacement parts for existing Cisco switches. This document is helpful in determining which DeltaV Smart Switch has equivalent functionality to an existing Cisco switch. It is not intended to be used as a network design guide for a DeltaV control network.

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Introduction

The introduction of the DeltaV Smart Switch product line as the preferred switch for use within the DeltaV control network requires a change in the lifecycle status of the current Cisco switches offered as VE numbers from our pricebook.

Cisco Switches Moved to "Active" Status

The purpose of this whitepaper is to document that the approved Cisco network switches we currently supply as VE-numbered items from our price book will move to "Active" product support status as of April 15, 2009.

Moving a product to "Active" product support status means that these Cisco switches have been functionally replaced by the DeltaV Smart Switches.

DeltaV systems should be quoted and implemented using the DeltaV Smart Switches. The use of Cisco switches should be limited to replacement equipment and system expansions for existing installations and in situations where the customer has a very strong preference for Cisco equipment.

Cisco Lifecycle Support

Our product lifecycle support policy for Cisco switches provides for three years of product support commitment after the status change to "Active."

At this time Cisco has no end- of-life plans for any of the switches we offer in our price book. Based on this, we will be able to provide the three years of installed-base support using a combination of DeltaV Smart Switches and existing Cisco switches.

At the end of the three years, these units will move to "Supported" product support status and DeltaV will no longer provide Cisco switches as VE-numbered products from the price book. Long term support plans for DeltaV systems with an installed base of Cisco switches will be announced at a later date closer to the time when the switches will move to supported status.

The Product Support Guideline can be found here:

http://mydeltav.emersonprocess.com/DCS SolutionsTools/Product Support Guidelines.pdf

Product Support Details (Excel spreadsheet):

http://mydeltav.emersonprocess.com/DCS SolutionsTools/DeltaV internet table.xls





DeltaV Smart Switch/Cisco Cross Reference Table

This table (next page) provides information to help you determine if and how a DeltaV Smart Switch can be used as a drop-in replacement for an existing Cisco switch.

DeltaV Smart Switches are supported in a mixed system with existing Cisco switches and for use in all DeltaV systems starting with v7.3.

This table can also be used as an aid in quoting the RM100 DeltaV Smart Switches where Cisco switches may have been previously used.

All DeltaV Smart Switches provide the same switching functions as the existing Cisco switches. Incompatibilities are due to physical dimensions, fiber connector differences, and the number of Gigabit ports available.

Important Note: This document is intended to provide a guide to compare DeltaV Smart Switches and Cisco switches as an aid in using DeltaV Smart Switches as replacement spares for existing Cisco switches. If we do not provide a DeltaV Smart Switch replacement then only a Cisco switch can be used as a spare.

This document should not be used to determine which switches should be used to design a DeltaV control LAN. DeltaV Smart Switches should be used in designing all new DeltaV Control LANs. If the DeltaV Smart Switches family does not provide an equivalent to a supported Cisco switch then the DeltaV system architecture should be designed using the DeltaV Smart Switches to eliminate the use of Cisco switches.

For example: the DeltaV Smart Switch family does not provide an all Gigabit rack mount switch [at this time] therefore we expect the DeltaV control network to be designed so this type of switch is not required.

Cisco Model	DeltaV Smart Switch that can be used as a replacement
VE6033 Cisco 2960-24TT-L	VE6046 RM100-24TX
24-port 10/100BASE-TX Fast Ethernet switch with 2 10/100/1000BASE-T uplinks	24-port 10/100BASE-TX Fast Ethernet switch with 2 10/100/1000BASE-T uplinks or SFP uplinks. This unit is a drop-in replacement for the Cisco 2960-24TT-L and the Cisco 2950-24 switches.
VE6012 Cisco 2950-24	the Cisco 2330-24 Switches.
24-port 10/100BASE-TX Fast Ethernet switch (no uplink ports)	





Cisco Model	DeltaV Smart Switch that can be used as a replacement
VE6032 Cisco 2960-24TC-L	VE6046 RM100-24TX
24-port 10/100BASE-TX Fast	24-port 10/100BASE-TX Fast Ethernet switch with 2 10/100/1000BASE-T or SFP uplinks
Ethernet switch with 2 10/100/1000BASE-T or SFP uplinks	This unit is a drop-in replacement for the Cisco 2960-24TC-L and the Cisco 2950C-24 (using VE6050 100 MB SFP Transceivers if fiber uplinks are required)
VE6013 Cisco 2950C-24	Cisco SFP Transceivers are not supported on the VE6046 DeltaV switch the replacement unit requires the use of VE6050 Transceivers if fiber uplinks are used.
24-port 10/100BASE-TX Fast Ethernet switch with 2 100FX MT- RJ uplinks	Replacing the 2950C that is using fiber uplinks will require an MT-RJ to LC fiber cable adaptor or re-terminating the fiber optic cable with LC connectors.
VE6021 Cisco 3750-24-TS-S	VE6046 RM100-24TX
24-port 10/100BASE-TX Fast Ethernet switch with 2 SFP 1000MB uplinks	24-port 10/100BASE-TX Fast Ethernet switch with 2 SFP 1000MB uplinks. This unit can be a drop-in replacement for the Cisco 3750-24-TS-S.
Spanner Spanner	Cisco SFP Transceivers are not supported on the VE6046 DeltaV switch replacement unit requires the use of VE6050 Transceivers if fiber uplinks are used.
	(This unit is not a drop-in replacement if the Cisco switch is part of a stacked set of switches.)
VE6015 Cisco 2940-8TF	VE6047 RM100-8TX (uses gigabit or 100FX fiber)
8 Ethernet 10/100 ports + 1 Ethernet 100BASE-FX + 1	This unit is a drop in replacement for the Cisco 2940
1000BASE-X SFP port	Cisco SFP Transceivers are not supported on the VE6046 DeltaV switch replacement unit requires the use of VE6050 Transceivers if fiber uplinks are used.





Cisco Model	DeltaV Smart Switch that can be used as a replacement
VE6031 Cisco 2960-8TC-L	VE6047 RM100-8TX (uses gigabit or 100FX fiber)
8 Ethernet 10/100 ports and 1 dual- purpose uplink port (10/100/1000 or SFP)	This unit is a drop-in replacement for the Cisco 2960-8TC-L Cisco SFP Transceivers are not supported on the VE6046 DeltaV switch replacement unit requires the use of VE6050 Transceivers if fiber uplinks are used.

The Cisco switches in this table do not have a drop-in replacement in the DeltaV Smart Switch family. DeltaV switches can be used, but some system modification is required to use them.

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Cisco Model	DeltaV Smart Switch that can be used but is not a drop-in replacement	
VE6018 Cisco 3750-24FS-S 24-port 100Base-FX Fast Ethernet Switch with 2 x SFP slots	VE6048 RM100-Base Module and one or two of the VE6049 multi- mode Fiber expansion modules depending on how many fiber connections are required.	
VE6014 Cisco 3550-24-FX	This unit can be used to replace a Cisco 3750-24FS-S or 3550-24-FX but is not a drop-in replacement, as the 24 4fiber connections require an MT-RJ to SC adaptor.	
THE PART CONTENTS OF THE PART	If the Cisco unit is using more than 16 fiber ports the DeltaV smart switch requires 2 switches to replace the 24 FX port Cisco unit.	
24 100FX ports and two GBIC- based Gigabit Ethernet uplink ports	This unit is not a drop-in replacement if the Cisco switch is part of a stacked set of switches.	
	Cisco SFP transceivers are not supported in DeltaV Smart Switches replacement unit requires the use of VE6050 Transceivers if fiber uplinks are used.	
	On the Cisco 3550 the 2 GBIC uplink connectors will require adaptors to LC connectors or re-termination of the fiber cables with LC connectors.	
VE6022 Cisco 3750-12S-S	No Smart Switch drop-in replacement. DeltaV Smart Switches cannot provide 12 1000 MB (Gigabit) ports.	
12-port SFP-based Gigabit Ethernet switch		





VE6034 Cisco 2960-48TC-L



48-port 10/100BASE-TX Fast Ethernet switch with 2 10/100/1000BASE-T ports Qty 2 VE6046 RM100-24TX interconnected via gigabit front panel port.



Can be used but not a drop-in replacement due to physical dimensions of 2 units vs 1 unit for the Cisco 48 port switch.

Cisco SFP transceivers are not supported in DeltaV Smart Switches replacement unit requires the use of VE6050 Transceivers if fiber uplinks are used.

VE6035 Cisco 2960-48TT-L



48-port 10/100BASE-TX Fast Ethernet switch with 2 dualpurpose uplinks (10/100/1000BASE-T or SFP) Qty 2 VE6046 RM100-24TX interconnected via gigabit front panel port



Can be used but not a drop-in replacement due to physical dimensions of 2 units vs 1 unit for the Cisco 48 port switch.

Cisco SFP transceivers are not supported in DeltaV Smart Switches replacement unit requires the use of VE6050 Transceivers if fiber uplinks are used.

