

Stackwise Plus Architecture for Cisco Catalyst 3750-E Series Switches

Andy: Hello, everyone, I'm Andy Gremett, Product Marketing Manager for Network Systems at Cisco. Thanks for tuning into the first edition of our online LAN switching update. This session is one of a series of monthly LAN Switching podcasts where we talk about business and deployment considerations in focused 5-10 minute topics.

Today's session will be the first part of a two part series on StackWise Plus, the latest stacking architecture for the new Catalyst 3750-E Series Switches.

With me today is one of the Cisco's product managers for the new Cisco Catalyst 3750-E series of stacking switches, Kevin Skahill.

Welcome, Kevin.

Kevin: Thanks, Andy, glad to be here.

Andy: So, Kevin, stackable switches have made quite a few advancements over the last couple of years, haven't they?

Kevin: Yes, Andy, they have. In fact, with the new series of Catalyst 3750-E switches we are introducing a number of new technologies.

Andy: Great, let's talk about a few of these.

Kevin: One of the new technologies we're introducing is an enhanced version of our stacking architecture. This new technology is called StackWise Plus.

Andy: What makes StackWise Plus different than what we had before?

Kevin: If you remember, StackWise was introduced with the Cisco Catalyst 3750 Series Switches, and it allowed us to connect up to nine switches to form one logical switch with a 32-gigabit per second interconnect.

StackWise Plus allows us to connect nine switches in a logical unit just like StackWise did, and it also doubles the interconnect bandwidth between the switches to 64 gigabits per second. It allows us to do local switching on the new Catalyst 3750-Es.

Andy: Sounds good. What other capabilities does stacking enable?

Kevin: StackWise Plus also helps prevent outages if a switch goes down. The switches in a stack are connected with special stack interconnection cables. These are the StackWise Plus cables. These cables create a bidirectional closed loop path. Within this loop, packets are allocated between two logical counterrotating paths so that if a switch or cable failure is detected, traffic is wrapped back around across the remaining path. This allows the stack to continue to function, without partitioning, if a switch were to go offline.

Andy: Are there any other advantages to this stacking architecture?

Kevin: Yes, because of our stacking architecture switches can be added or removed without

service interruption. And when a new switch is added to an existing stack, this new switch will automatically be configured with the currently running Cisco IOS Software image.

Andy: How does that work?

Kevin: When the stack master sees that a new switch has been added to the stack, it automatically checks what version of software it has on it, then upgrades or downgrades that switch so the entire stack of switches is running a consistent image.

Andy: So I take it replacing a switch would be easy as well?

Kevin: Yes, it's even easier than adding a new switch. In the unlikely event of a switch failure, if you replace it with the same model, then the master switch will not only automatically update the software, but also apply the previous configuration. Getting back up and running is fast, efficient, and best of all doesn't require technical resources.

Andy: That can be of real value, particularly for remote branch office deployments where onsite IT support may not be available.

Is it possible to stack my existing 3750 Series with these new Catalyst 3750-E Switches?

Kevin: Absolutely. You can stack Catalyst 3750 and the new 3750-E switches together. This is a great way to maximize your existing investment in Catalyst 3750 switches and add new capabilities to your existing stacks. This works really well for customers who want to deploy 10 Gigabit uplinks into their existing infrastructure.

Andy: How difficult it is to manage a stack of these switches with StackWise Plus?

Kevin: We've made it, actually, easier to manage a stack of nine switches than to manage a couple of individual switches. The StackWise Plus cables intelligently join the stack of switches forming a single logical stacking unit. Each stack has a single IP address and is managed as a single object. This single IP address management is used for things like fault detection, VLAN creation, security, and QoS controls. Fewer devices to manage means that you'll have fewer configuration errors and less time required to implement changes across the network.

Andy: This is great information. It sounds like there are some new enhancements for the 3750-E portfolio of switches. Kevin, are there materials we can read or watch to get more information on stacking?

Kevin: Sure, we have materials that address both technical issues and business benefits. We also have some great flash and video demos for you to watch. Go to www.cisco.com/go/3750-E.

Andy: Thanks, Kevin, sounds like www.cisco.com/go/3750-E is the place we should go for the latest information.

Well that wraps it up for today. Thanks for listening, everyone. Stay tuned for another session on the latest in switching news.

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