



Cisco Support Community Expert Series Webcast

Troubleshooting with Speed and Confidence for Network Engineers

Kevin Wallace, CCIEx2

June 23, 2015

Upcoming Expert Series Webcast

Cisco FirePOWER Threat Defense for Integrated Services Routers (ISR)

July 8th, 2015

In October 2013 Cisco acquired Source Fire, and has integrated Source Fire in the ASA platforms as well as in the ISR platforms.

In this session you will learn about Source Fire company history, the rebranding of Source Fire as FirePOWER Services and how to use FirePOWER effectively on the ISR G2 and 4K platforms on the UCS-E blade to secure the network from attacks and malware.

<https://supportforums.cisco.com/event/12534921/live-expert-webcast-firepower-threat-defense-integrated-services-routers-isr>



Kureli Sankar

Ask the Expert Events – Active

Now through July 3rd

Configuring and Troubleshooting MPLS Traffic-Eng on Cisco IOS and IOS XR. Learn and ask questions about Configuring and Troubleshooting MPLS Traffic-engineering on Cisco IOS and IOS XR router to maximize network resource utilization with expert Vinit Jain

Social Miner (Implementation, deployment and troubleshoot) and Integration with Contact Center hosted by Cisco Expert, Arundeeep Nagaraj



Join the discussion for these Ask The Expert Events:
<http://bit.ly/events-webinar>

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Experts Bureau

Use the Cisco Experts Bureau to find, connect, and follow recognized Subject Matter Experts and the programs they participate in regularly. The Experts Bureau comprises Cisco employees as well as Partners and Customers who have contributed to, or been selected for knowledge sharing programs on the Cisco Support Community, such as Webcasts, Ask the Expert Events, Facebook Forums, Tech-Talks, Meetups, and Blogs.

If you have interest in participating, apply online through this [simple form](#). After applying, a member of the Cisco Support Community team will be in contact with additional details.

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<https://supportforums.cisco.com/blog/154746>

Cisco Support Community Expert Series Webcast

Kevin Wallace, CCIEx2

(R/S and Collaboration) #7945

- Today's first featured expert is Kevin Wallace, a Certified Cisco Systems Instructor (CCSI #20061), and he also holds multiple Cisco professional and associate-level certifications in the Routing/Switching, Collaboration, Security, Design, and Data Center tracks. <http://kwtrain.com>
- Ask your questions now in the Q&A window



Meet Your Question Managers

Vinit Jain,
CCIEx4
(R/S, SP, Security,
Data) #22854



Mohammed
Jameel,
CCIE
(Service Provider)
#39747

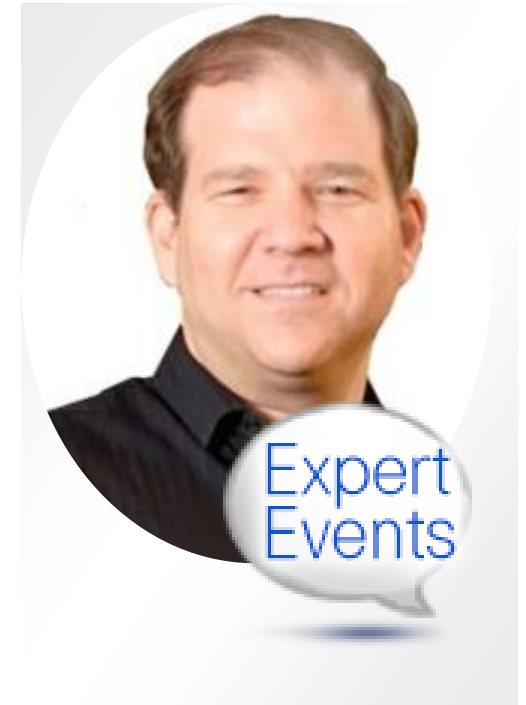


Ask the Expert Event following the Webcast

Now through July 3, 2015

Kevin will be continuing the discussion in an Ask the Expert event. So if you have more questions, please visit the Expert Corner > Events on the Cisco Support Community

<https://supportforums.cisco.com/discussion/12534966/ask-expert-troubleshooting-speed-and-confidence-kevin-wallace>



Thank You For Joining Us Today!



If you would like a copy of the presentation slides, click the PDF file link in the chat box on the right or go to:

<https://supportforums.cisco.com/document/12535016/webcast-slidestroubleshooting-speed-and-confidence-network-engineers>





Submit Your Questions Now!

Use the Q & A panel to submit your questions and the panel of experts will respond.

Please take a moment to complete the survey at the end of the webcast



Troubleshooting with Speed and Confidence for Network Engineers

Cisco Support Community Expert Series Webcast

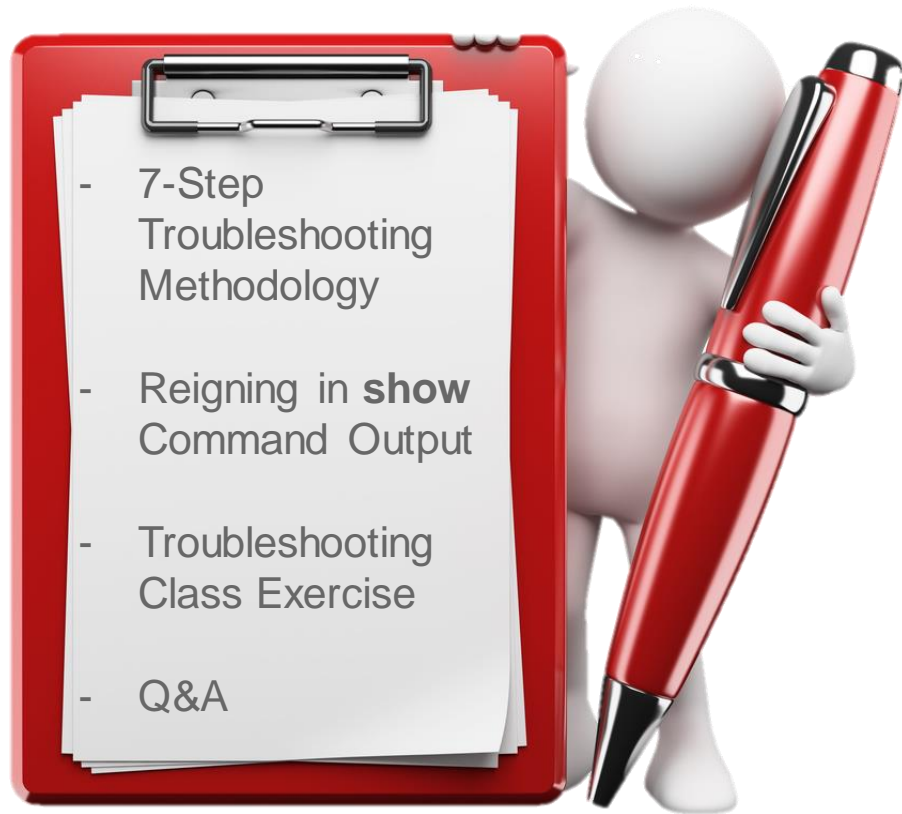
Kevin Wallace, CCIEx2

CCIEx2, Cisco Press Author

June 23, 2015

Agenda

- 7-Step Troubleshooting Methodology
- Reigning in **show** Command Output
- Troubleshooting Class Exercise
- Q&A



Polling Question 1

How often
do you
troubleshoot
your network?

Every day.

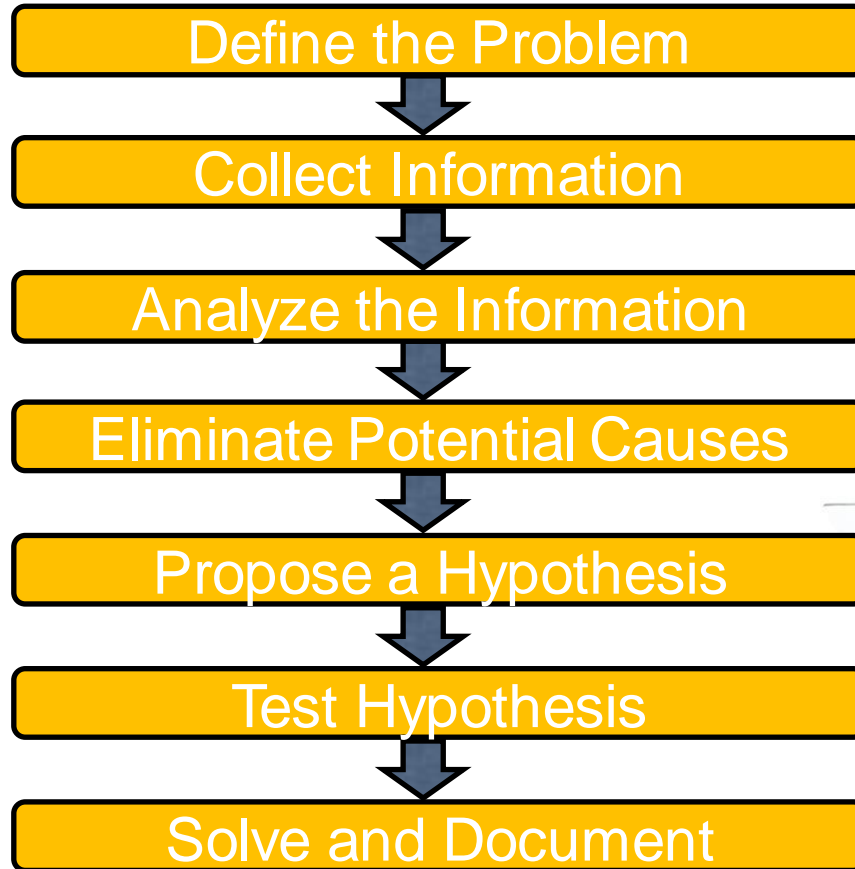
Every few days.

Just a few times a month.

Someone else is responsible for
troubleshooting.

The 7-Step Troubleshooting Methodology

The 7 Steps



Define the Problem

- Problem Report
- Verify
- Create Trouble Ticket
- Assign Trouble Ticket



Collect Information

- Create a Plan
- Identify Targets
- Identify Tools
- Gain Access
- Collect Information



Analyze the Information

- Check Documentation
- Check Baseline
- Research
- Experience



Eliminate Potential Causes

- Question Assumptions
- List Possible Causes



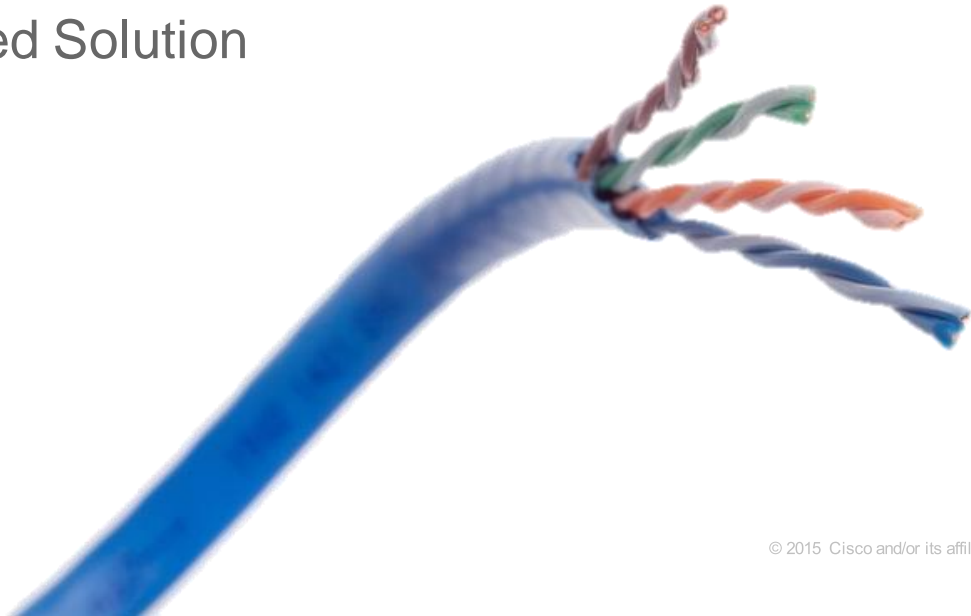
Propose a Hypothesis

- Identify Most Likely Cause
- Gain Access



Test Hypothesis

- Balance Impact with Urgency
- Document a Rollback Plan
- Implement Proposed Solution
- Check Result



Solve and Document

- Implement Solution
- Document Solution
- Close Trouble Ticket



Reigning in **show** Command Output

Demo

Troubleshooting Class Exercise #1

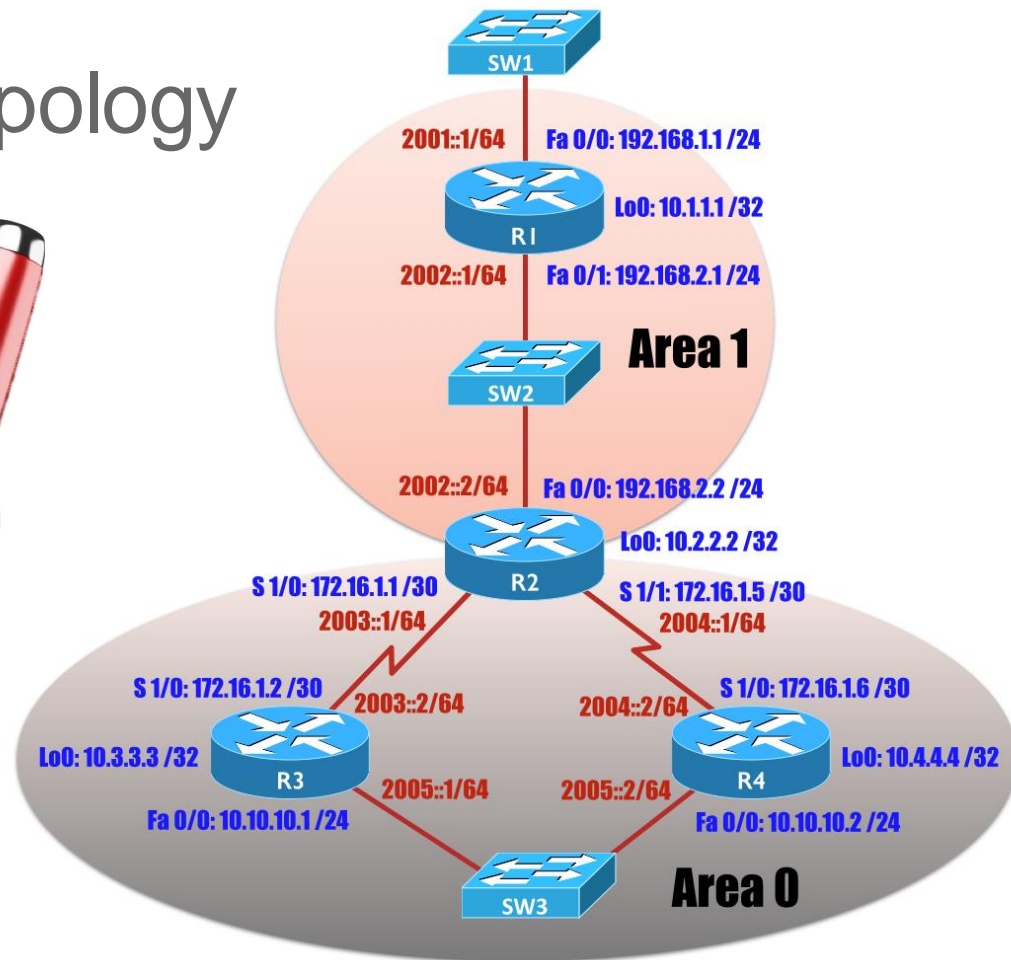
Polling Question 2

What might prevent an OSPF neighborhood from forming?

Type in your answers.

Troubleshooting Topology

- Interface's IP address in wrong subnet
- Interface administratively shut down
- Interface not participating in OSPF process
- Interface configured as passive
- Failed authentication
- Filtering of OSPF packets
- Mismatched area numbers
- Mismatched area types
- Mismatch timers
- Mismatched MTU values
- Duplicate router IDs



Demo

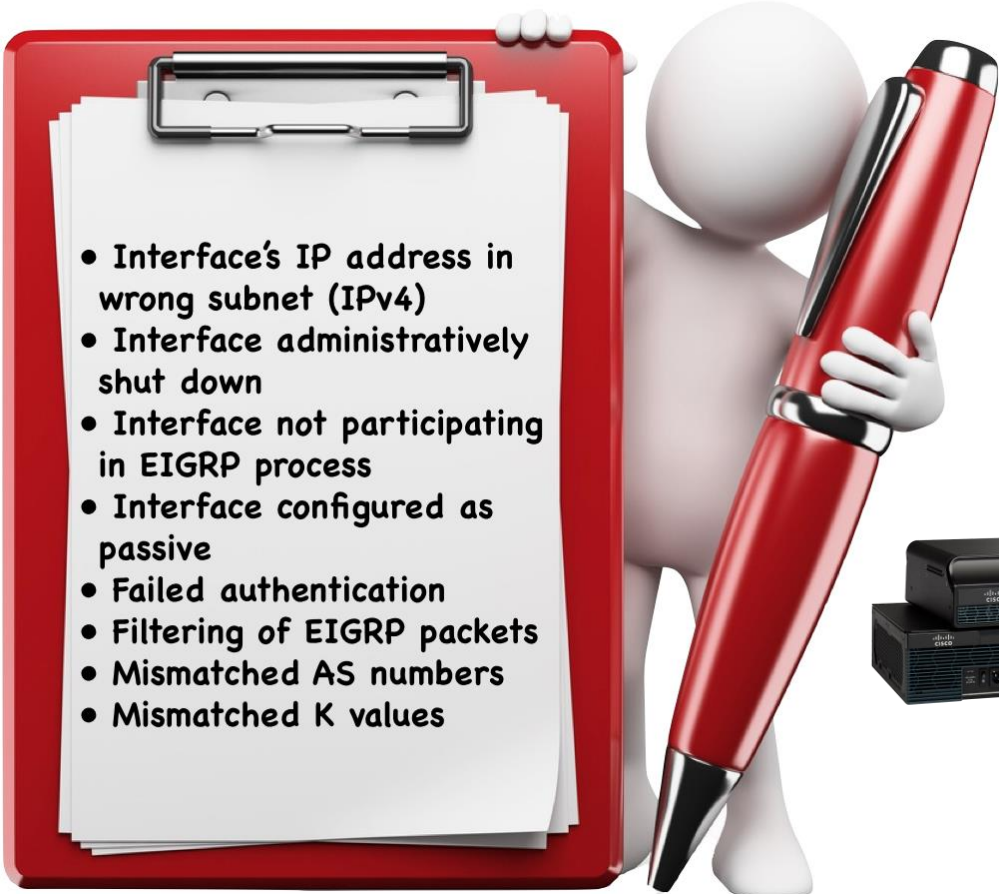
Troubleshooting Class Exercise #2

Polling Question 3

What might prevent an EIGRP neighborhood from forming?

Type in your answers.

Troubleshooting EIGRP

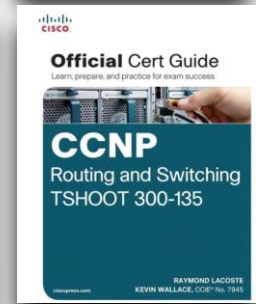
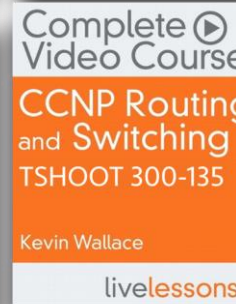
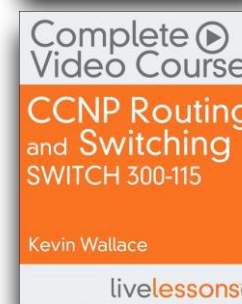
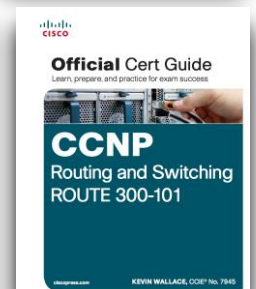
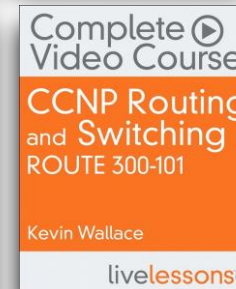
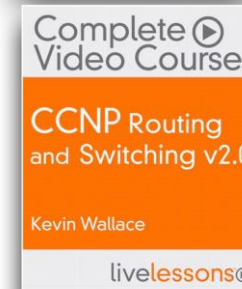
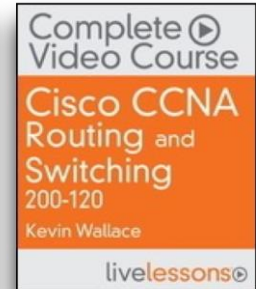
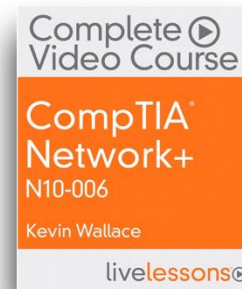
- 
- Interface's IP address in wrong subnet (IPv4)
 - Interface administratively shut down
 - Interface not participating in EIGRP process
 - Interface configured as passive
 - Failed authentication
 - Filtering of EIGRP packets
 - Mismatched AS numbers
 - Mismatched K values



Demo

Kevin's Books and Videos

kwtrain.com/books





Submit Your Questions Now!

Use the Q & A panel to submit your questions and our expert will respond



kwtrain.com/success



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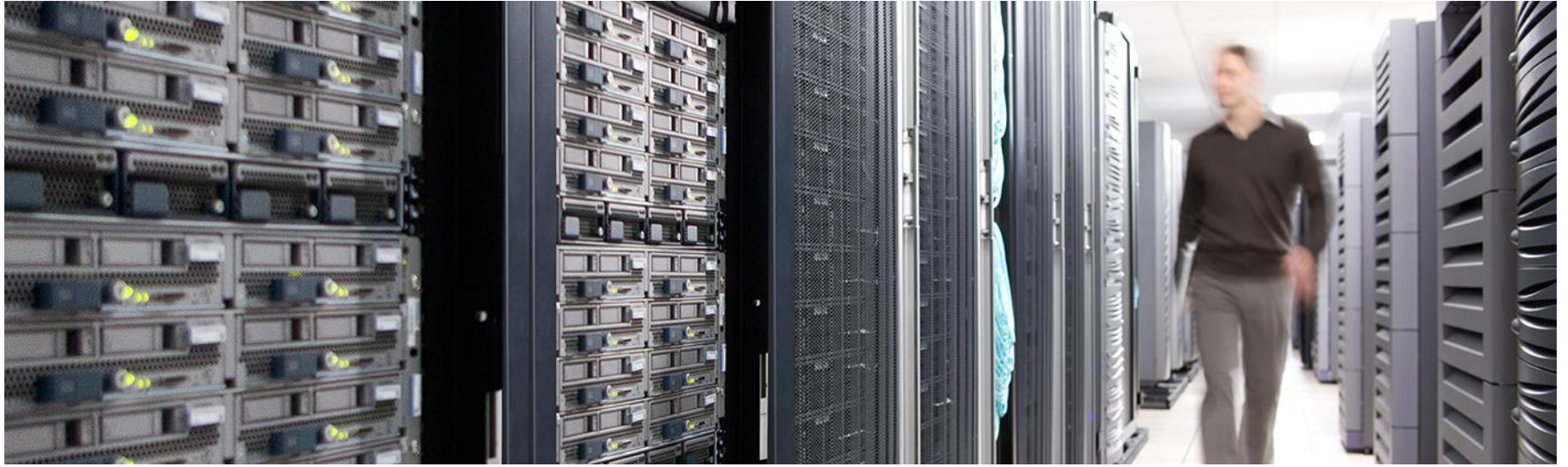
Chinese

<http://www.csc-china.com.cn>



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Please take a moment to complete the survey

Thank you for Your Time!



CISCO

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