

Shasta Rogue Chapter Newsletter

Winter 2016

Society of Cable Telecommunications Engineers



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2017 Here We Come!

Shasta Rogue Members,

As 2016 comes to an end and we usher in 2017, the Shasta Rogue Chapter is already making plans for another successful year. Our chapter goals this year include training seminars on DOCSIS 3.1, Fiber Deep/FTTH, & Coaxial Plant Maintenance.

Shasta Rogue Board Members are also making plans to take the chapter on the road in 2017. This tour is to thank our current Chapter members and to also promote SCTE involvement throughout our Chapter footprint. We have tentative visits planned from Eureka, CA up the coast to Coos Bay, OR and the I-5 corridor from

Roseburg to Redding, CA. We look forward to seeing and visiting everyone and hope you will share your ideas as to how we all make the Shasta Rogue Chapter more successful in 2017.

2017 also ushers in our annual SCTE Shasta Rogue elections for officers & board members. If you are interested in volunteering, please reach out to one of us. This is a great way to become involved in our Chapter. More on the elections will be coming your way soon!

In the last newsletter I wrote about SCTE Certifications and the role it could play as a career investment. Our company recently realigned regions and management

areas after the Time Warner/Brighthouse acquisitions. This realignment ultimately created some local opportunities for promotions. After talking with several of the hiring managers, applicants who had invested in their careers and self-development through SCTE & like self-development, positioned themselves much more favorably than those without. Some of these coveted positions only have openings every few years, SCTE certifications and trainings may make the difference when the competition for these jobs is fierce.

Regards,
Mike Smith
President - Shasta Rogue

2017 Shasta Rogue Elections—Please Vote!!!!!!

Our board of directors annual elections will be conducted the week of **January 9 to 13, 2016**. Six of the board's ten positions will be open and voted on.

Anyone interested in helping steer the direction of our chapter is encouraged to submit a "Nominee Statement of Qualifi-

cations" form to Micah Martin by **Jan. 3, 2016**.

The form can be obtained from the chapter web site and has already been distributed to the chapter email list.

To be a board member, you must be an SCTE member and involved in the cable telecom-

munications industry.

The chapter also has openings for non-voting Associate Director positions. Associate Directors help guide the chapter and are selected by vote of the board.

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2017 Training Plans

2017 Training

Jan. 25 — Service Drop Bonding

March 22— DOCSIS 3.1 Testing

Date TBD—Hardline Coax Plant Maintenance?

Date TBD—Fiber Deep Architecture Deployment?

Suggestions for training topics are always welcome. Talk with a board member about your ideas!!!!

The Shasta Rogue training seminars will continue to focus on webinar based delivery in 2017. This method has proven to be highly effective at delivering good information to a lot of technicians, while minimizing impacts on operational production.

A great way to get involved with the chapter is to help coordinate the training sessions in your local office. There is more to making this successful than meets the eye!

Congratulations to Randy Love on his recent re-election as the SCTE's Region 3 National Representative. Randy is our local voice to the national SCTE and does an awesome job!!!!!!

Web links of Interest

National SCTE

www.scte.org

Shasta Rogue web site

www.shastarogue.org/

Facebook

www.facebook.com/shastarogue

The SCTE Foundation

Recently, the Shasta Rogue board of directors voted to partner with the other Region 3 chapters and donate chapter funds to The SCTE Foundation. Why, you may ask? Well, because The SCTE Foundation exists to directly assist you, our professional community and our families.

The SCTE Foundation is a non-profit 501(c)3 organization dedicated to the advancement of knowledge by funding the technical and business education of industry professionals to further fuel the growth and strength of our industry as a whole. The SCTE Foundation benefits the industry through increased professionalism, vitality and innovation. By providing financial grants to individuals to advance their careers, the SCTE Foundation is helping to expand technical awareness. Every career enhanced by a Foundation grant leads to a more knowledgeable employee and a more advanced workforce.

TAKE ADVANTAGE.

Since its inception, the SCTE Foundation has provided grant money to technical professionals from all levels of the industry. It doesn't matter if you're a contractor, installer, or ops supervisor, senior executive or member in transition—SCTE makes grant money available for the pursuit of continuing education for members in good standing across all levels of an organization.

The entire volunteer organization has standing committees and structures in place that allow the SCTE Foundation to guide funds to augment individual's requests for educational assistance.

If you want to advance your own career, further your education and improve your skills the SCTE Foundation is one way to help make it happen. You can find more information about this member benefit and how to apply for a grant at the SCTE web site:

<http://foundation.scte.org/>

Fiber Optic Wave Division Multiplexing

OK, so it would be impossible to provide a good overview of the new fiber optic transmission architectures in a few inches of news-letter space, but here are a few basics with pictures!

To increase operating capacity and maximize capability of existing fiber optic deployments, operators are multiplexing fiber optic (FO) “channels” aka wavelengths onto single fibers. This is analogous to the frequency division multiplexing used to place multiple RF carriers on coaxial plant. You know, channels 2, 3, 4, etc.

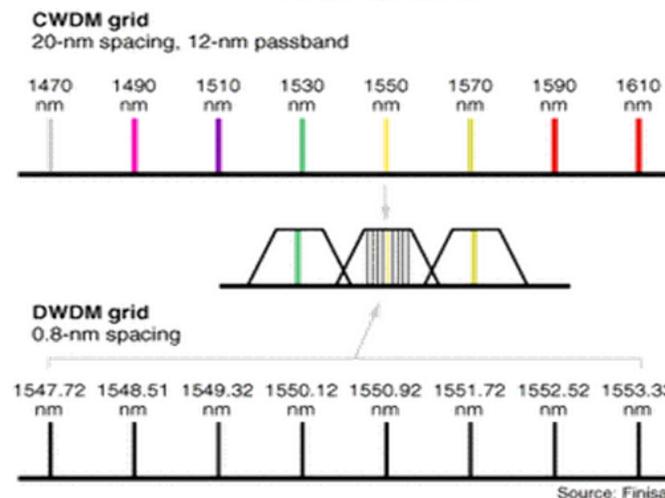
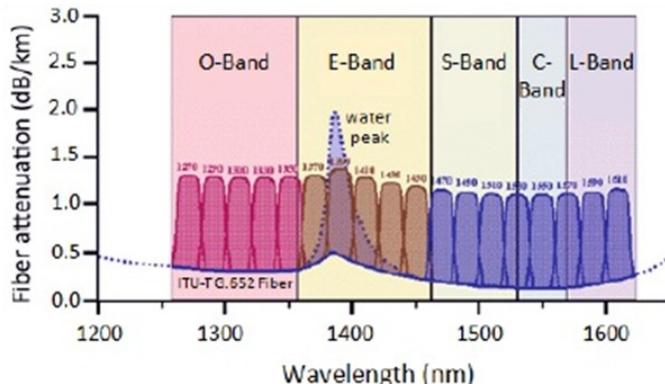
Early fiber optic deployments utilized a single fiber and a single wavelength of 1310nm, which is roughly 229THz, a very high frequency! It is typical to have 1310nm and 1550nm wavelengths on a single fiber in today’s networks. This is an example of wave division multiplexing (WDM).

Coarse Wave Division Multiplexing (CWDM), which used relatively inexpensive transceivers and prisms, came along and enabled the placement of 16 different wavelengths on a single fiber. This was great for a while, but soon became a limiting factor for deploying many MetroE circuits in the local area.

Price reductions in fiber optic electronics and improvements in prism/filter technology produced Dense Wave Division Multiplexing (DWDM), which is being heavily deployed today. A **review of the charts to the right** shows how the various fiber optic wavelengths line up. A DWDM network with channels spaced 50GHz apart enables roughly 80 channels to be simultaneously transmitted on a single fiber!

In today’s FO networks, multiple MetroE customers can share a common fiber and have each have their own dedicated FO channel. These channels carry highly reliable voice, video and data services.

OK—the WDM surface has been scratched, time for you to fill in the many blanks not provided here!



If you save money when you can, you can waste it when you want!

Why do good ideas or decisions always involve “I” and the bad ones “U”?

JP Hall

Got time for a laugh?

An employee approached his boss regarding a dispute on his pay-check...

Employee – Sir, this is \$100 less than my salary.

Boss – I know. But last month, when you were overpaid \$100, by mistake, you didn’t complain!

Employee – Well, I don’t mind an occasional mistake, sir, but it seems to be becoming a habit, now!



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One day an employee sends a letter to his boss to increase his salary!!!

In thi\$ life, we all need \$ome thing mo\$t de\$perately. I think you \$hould be under\$anding of the need\$ of u\$ worker\$ who have given \$o much \$upport including \$weat and \$ervice to your company. I am \$ure you will gue\$\$ what I mean and re\$pond \$oon Your\$ Sincerely, Norman \$oh

The next day, the employee received this letter of reply:

I kNOW you have been working very hard. NOWadays, NOthing much has changed. You must have NOticed that our company is NOt doing NOticeably well . NOW the newspaper are saying the world`s leading ecoNOMists are NOt sure if the United States may go into aNOther recession. After the NOvember presidential elections things may turn bad. I have NOthing more to add NOW You kNOW what I mean.

Yours truly, Manager