

Meeting Minutes: IEEE 802.3bt DTE Power via MDI over 4-Pair Task Force  
May 24-26, 2016  
Whistler, BC, Canada  
Prepared by Dylan Walker

Interim meeting of the IEEE 802.3bt DTE Power via MDI over 4-Pair Task Force convened at 8:00 AM, Tuesday, May 24th, 2016 by David Abramson, 802.3bt Task Force Vice Chair, Comment Editor, and stand-in for Chad Jones, 802.3bt Task Force Chair.

Dylan Walker appointed acting recording secretary for the session.

Presentation: Meeting Agenda (agenda\_0516.pdf)  
Presenter: David Abramson, Comment Editor

Motion #1: Approve the agenda for May 2016 Task Force meeting (agenda\_0516.pdf)  
M: Lennart Yseboodt S: Yair Darshan  
Passes by voice without opposition (Procedural > 50%)

Mr. Abramson called for introductions and affiliations, and the participants introduced themselves.

Motion #2: Approve the minutes from March 2016  
M: Yair Darshan S: Lennart Yseboodt  
Passes by voice without opposition (Procedural > 50%)

At 8:10 AM, Mr. Abramson asked if anyone was attending from the press, including those who would run a public blog on this meeting. None responded. Mr. Abramson noted that there should be no recording or photography without permission. Mr. Abramson reviewed the goals for the meeting, access to the reflector and website, and ground rules. Mr. Abramson advised the group to track their attendance in the IMAT attendance tool. Mr. Abramson showed and read aloud Patent Policy slides #1 through #4 from agenda\_0516.pdf.

At 8:12 AM, Mr. Abramson made the call for potentially essential patents. None responded.

Mr. Abramson completed review of the Meeting Agenda presentation. At 8:14 AM, Mr. Abramson moved on to Comment Resolution. During the course of comment resolution, comments relating to presentations were postponed until after a first pass of the comments.

BREAK AT 10:25 AM, RECONVENED AT 10:45 AM. Mr. Abramson resumed comment resolution.

Down to 34 more comments to review.

RECESSED FOR LUNCH AT 12:13 PM, RECONVENED AT 1:30 PM.

The TF resumed comment resolution.

BREAK AT 2:57 PM, RECONVENED AT 3:20 PM. The TF starts presentations pertaining to comments.

Presentation: (3:20 PM - 3:30 PM)

Title: Proposed remedy for comment 11 (darshan\_14\_0516.pdf)

Presenter: Yair Darshan, Microsemi

Discussion: Revolved around how best to specify system stability requirements.

At 3:46 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_14\_0516.pdf".

Presentation: (3:50 PM - 3:53 PM)

Title: Proposed remedy for Comments 107, 124, 41, and 15 (darshan\_11\_0516.pdf)

Presenter: Yair Darshan, Microsemi

Discussion: How to deal with comments 107, 124, 41, and 15, all referencing Tcc.

At 3:54 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_11\_0516Rev002.pdf".

Presentation: (3:58 PM - 4:05 PM)

Title: PSE State diagram introduction text (yseboodt\_06\_0516\_sdintro.pdf)

Presenter: Lennart Yseboodt, Philips

Discussion: Introductory text for PSE state diagram, and how to specify our order of operations without affecting the rest of 802.3.

At 4:13 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "yseboodt\_06\_0516\_sdintro.pdf".

Presentation: (4:25 PM - 4:33 PM)

Title: Table\_33-28\_and\_Table 33-27\_updates (darshan\_01\_0516.pdf)

Presenter: Yair Darshan, Microsemi

Discussion: Updates to PSE and PD inrush parameter values and text.

At 4:41 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_01\_0516Rev6.pdf".

Presentation: (4:45 PM - 4:47 PM)

Title: Timing diagrams (lukacs\_01\_0516T\_tmings.pdf)

Presenter: Miklos Lukacs, Silicon Labs

Discussion: Adding timing diagrams to clarify autoclass and CC\_DET\_SEQ PSE SD pathways, and where to add to them.

At 5:00 PM, it was determined that Miklos will work on more apt titles for the diagrams throughout the week so that comments can be closed based on the presentation before close of session.

Presentation: (5:04 PM - 5:07 PM)

Title: Proposed Remedy for 106 (darshan\_09\_0516.pdf)

Presenter: Yair Darshan, Microsemi

Discussion: Text that allows a PSE to issue more class events than the class that can be supported as long as a class reset is used to clear the PDs classification results.

At 5:15 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_09\_0516Rev2.pdf".

RECESSED FOR THE DAY AT 5:17 PM. Will reconvene at 8 AM tomorrow.

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DAY 2: WEDNESDAY MAY 25  
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Mr. Abramson reconvened the Task Force at 8:05 AM, Wednesday, May 25. The TF resumed presentations pertaining to comments.

Presentation: (8:11 AM - 8:26 AM)  
Title: Fixing DLL and LLDP (schindler\_3bt\_01\_05\_16.pdf)  
Presenter: Fred Schindler, Seen Simply  
Discussion: Revolved around changes to DLL and LLDP.

At 8:34 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "schindler\_3bt\_01\_05\_16.pdf".

Presentation: (8:40 AM - 8:44 AM)  
Title: Dual signature MPS SD (yseboodt\_07\_0516\_power.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Fixing MPS state diagrams.

At 8:45 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "yseboodt\_07\_0516\_power.pdf".

Presentation: (8:47 AM - 8:49 AM)  
Title: Autoclass timing (yseboodt\_08\_0516\_autoclass4.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Refining autoclass parameters and picking up a change that was missed in a past cycle.

At 8:50 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "yseboodt\_08\_0516\_autoclass4.pdf".

Presentation: (8:53 AM - 8:56 AM)  
Title: PSE State Diagram improvements (yseboodt\_11\_0516\_psestatedia.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Adding variables so that the PSE state diagram can reflect PD allocated power.

At 8:57 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "yseboodt\_11\_0516\_psestatedia.pdf".

Presentation: (9:06 AM - 9:25 AM)

Title: Supporting Baseline for comment 56 (johnson\_01\_0516\_Extended\_Pwr\_baseline\_v1.pdf)

Presenter: Peter Johnson, Sifos

Discussion: Clarifying that not all Class 6 and Class 8 PDs support extended power, and breaking out the extended power text into dedicated sub-clauses.

At 9:26 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "johnson\_01\_0516\_Extended\_Pwr\_baseline\_v1.pdf".

Presentation: (9:29 AM - 9:31 AM)

Title: Updating\_33\_3\_7\_6 (darshan\_03\_0516.pdf)

Presenter: Yair Darshan, Microsemi

Discussion: Addressing the editor's note in "33.3.7.6 PD behavior during transients at the PSE PI".

At 9:32 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_03\_0516.pdf".

Presentation: (9:33 AM - 9:36 AM)

Title: Proposed remedy for comment 20 (darshan\_15\_0516.pdf)

Presenter: Yair Darshan, Microsemi

Discussion: Addressing the editor's note in 33.4.9.2 pertaining to midspan transmission parameters.

At 9:37 AM, comment resolution resumed on comments related to this presentation.

Presentation: (9:38 AM - 9:39 AM)

Title: Proposed remedy for comment 216 (darshan\_12\_0516\_remedy\_for\_216.pdf)

Presenter: Yair Darshan, Microsemi

Discussion: Remedy for comment #216.

At 9:40 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_12\_0516\_remedy\_for\_216.pdf".

Presentation: (9:40 AM - 9:41 AM)

Title: Proposed remedy for comment 44 (darshan\_16\_0516\_remedy\_for\_comment\_44.pdf)

Presenter: Yair Darshan, Microsemi

Discussion: Remedy for comment #44.

At 9:43 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_16\_0516\_remedy\_for\_comment\_44.pdf".

Presentation: (9:45 AM - 9:51 AM)

Title: Proposed remedy for comment 54 (darshan\_13\_0516.pdf)

Presenter: Yair Darshan, Microsemi

Discussion: Remedy for comment #54.

At 9:57 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_13\_0516.pdf".

At 10:02 AM, comment resolution resumed on comments 112, 113, and 114.

Presentation: (10:04 AM - 10:08 AM)  
Title: LLDP & Extended power (yseboodt\_01\_0516\_lldpext.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Changes to LLDP variables for extended power.

At 10:14 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "yseboodt\_01\_0516\_lldpext.pdf".

Presentation: (10:18 AM - 10:21 AM)  
Title: PD Signature (yseboodt\_03\_0516\_pdsig.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: How single- and dual-signature PDs should be further defined.

At 10:29 AM, comment resolution resumed on comments related to this presentation.

BREAK AT 10:40 AM, RECONVENED AT 11:01 AM. The TF continues presentations pertaining to comments.

Presentation: (11:04 AM - 11:06 AM)  
Title: PD Legacy state machine issues (yseboodt\_05\_0516\_pdsmllegacy.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Revolved around whether issues in the legacy PD state diagram should be fixed or not.

At 11:18 AM, comment resolution resumed on comments related to this presentation.

Presentation: (11:20 AM - 11:31 AM)  
Title: Editor Note 2 page 105 (darshan\_04\_0516.pdf)  
Presenter: Yair Darshan, Microsemi  
Discussion: Addressing Editor's Note #2 in 33.2.8.

RECESSED FOR LUNCH AT 12:01 PM, RECONVENED AT 1:15 PM. Chad Jones resumes role as Chair and thanks Mr. Abramson for excellently running the meeting in his absence.

The TF continues presentations pertaining to comments.

Presentation: (1:18 PM - 1:27 PM)  
Title: Revision 33.2.8.4 (yseboodt\_02\_0516\_power.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: PSE & PD power baseline.

At 1:28 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "yseboodt\_02\_0516\_power.pdf".

Presentation: (1:32 PM - 1:36 PM)  
Title: PD transients (yseboodt\_09\_0516\_pdtransient.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Simplification of the PD transient requirements.

At 1:40 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "yseboodt\_09\_0516\_pdtransient.pdf".

Presentation: (1:47 PM - 1:53 PM)  
Title: dual\_signature\_PD\_baseline (darshan\_06\_0515.pdf)  
Presenter: Yair Darshan, Microsemi  
Discussion: Baseline text for dual-signature PD state diagram.

At 1:54 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_06\_0515.pdf".

Presentation: (1:58 PM - 2:01 PM)  
Title: Supporting Baseline for comment 13 (Bennett\_1\_0516.pdf)  
Presenter: Yair Darshan, Microsemi on behalf of Ken Bennett, Sifos  
Discussion: Changes to baseline text for the first two paragraphs of 33.3.7.10.

At 2:04 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "bennett\_1\_0516.pdf".

Presentation: (2:09 PM - 2:50 PM)  
Title: MPS test conditions guidelines due to PSE dv dt (darshan\_10\_0516.pdf)  
Presenter: Yair Darshan, Microsemi  
Discussion: Erroneous MPS handling due to PSE transients.

At 2:51 PM, comment resolution resumed on comments related to this presentation.

BREAK AT 2:52 PM, RECONVENED AT 3:10 PM. The TF returns to comments left open for further action yesterday.

At 4:28 PM, the TF is back to presentations that relate to comments.

Presentation: (4:28 PM - 4:45 PM)  
Title: DLL Classification PSE Power Increase (tremblay\_1\_0516.pdf)  
Presenter: David Tremblay, HPE  
Discussion: Clarifying that DLL can be used to increase the power allocation up to the physical layer classification.

Motion #3: Adopt proposed baseline text in tremblay\_01\_0516\_rev02\_03, evaluate PSE\_NEW\_VALUE conditions and update to include power increase in Fig 33-49.

M: David Tremblay S: Yair Darshan

Yes: 15

No: 0

Abstain: 4  
Motion passes.

At 4:50 PM, Mr. Jones reviewed the liaison letter from TIA TR42, found here:  
<http://iee802.org/3/bt/public/may16/TR42-2016-06-062%20Outgoing%20Liaison%20to%20IEEE%20802p3bt.pdf>

Presentation: (4:57 PM – 5:03 PM)  
Title: Fixing DLL and LDDP Part-2 (schindler\_3bt\_02\_05\_16.pdf)  
Presenter: Fred Schindler, Seen Simply  
Discussion: DLL items that are still being investigated.

RECESSED FOR THE DAY AT 5:04 PM. Will reconvene at 8:30 AM tomorrow.

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DAY 3: THURSDAY MAY 26  
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Mr. Jones reconvened the Task Force at 8:30 AM, Thursday, May 26. The TF resumed comment resolution.

Presentation: (8:43 AM – 9:03 AM)  
Title: Modified proposal for 33.3.7.3 v002 (Modified proposal for 33.3.7.3.docx)  
Presenter: Yair Darshan, Microsemi  
Discussion: Concerns regarding PD inrush text.

Presentation: (9:05 AM – 9:13 AM)  
Title: PD Inrush 33.3.7.3 cleanup v131 (pdinrush\_baseline\_d1p7.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Further honing of the PD inrush text.

At 9:14 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "yseboodt\_10\_0516\_pdinrush.pdf".

Presentation: (9:16 AM – 9:19 AM)  
Title: Updating\_33\_3\_7\_3 (darshan\_02\_0516Rev004.pdf)  
Presenter: Yair Darshan, Microsemi  
Discussion: More inrush text modification.

At 9:19 AM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_02\_0516Rev004.pdf".

Presentation: (9:22 AM – 9:46 AM)  
Title: State diagram solution for comments #115 and #130  
Presenter: David Stover, Linear Technology  
Discussion: Handling class currents in excess of IClass\_LIM in PSE state diagram.

Presentation: (9:50 AM – 9:58 AM)

Title: PSE 4P requirements (yseboodt\_04\_0516\_pse4p.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Behavior of PSEs in response to a fault during 4-pair operation.

Presentation: (10:00 AM – 10:22 AM)  
Title: Type\_3\_and\_Type\_4\_protection (darshan\_05\_0516.pdf)  
Presenter: Yair Darshan, Microsemi  
Discussion: Behavior of PSEs in response to a fault during 4-pair operation.

BREAK AT 11:00 AM, RECONVENED AT 11:18 AM.

At 11:23 AM, a straw poll was held.

Straw Poll #1: I support forwarding the draft to Working Group in July 2016.

Y: 19

N: 1

At 11:32 AM, the TF resumed comment resolution.

RECESSED FOR LUNCH AT 11:48 AM, RECONVENED AT 1:18 PM.

Presentation: (1:19 PM – 1:43 PM)  
Title: NFPA70 and PoE (zimmerman\_3bt\_01\_0516.pdf)  
Presenter: George Zimmerman, CME Consulting  
Discussion: Potential NFPA 70 changes and associated NITMAMs.

At 1:44 PM, a straw poll was held.

Straw Poll #2:

I would support NITMAMs: 31

NITMAMs to delete changes

79 (Ampacity table 725.144)

84 (LP Cabling text)

85/105 (Communications Equipment)

NITMAM to amend change to communications equipment (76)

I would oppose all of the above and support the proposed changes (pick no others): 1

I abstain (pick no others): 3

At 1:53 PM, a straw poll was held.

Straw Poll #3: If the proposed second revisions stay as they are, I would consider removing Class 7 and Class 8 from IEEE P802.3bt.

Y: 5

N: 14

Don't know: 14

At 2:01 PM, comment resolution resumed.



Presentation: (2:08 PM – 2:13 PM)  
Title: Timings baseline (lukacs\_01\_0516\_timings\_baseline\_rev5.pdf)  
Presenter: Miklos Lukacs, Silicon Labs  
Discussion: Timing diagrams for an annex.

At 2:14 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "lukacs\_01\_0516\_timings\_baseline\_rev5.pdf".

At 2:15 PM, comment resolution resumed.

Presentation: (2:31 PM – 2:58 PM)  
Title: PSE state diagram updates for IClass\_LIM handling  
Presenter: David Stover, Linear Technology  
Discussion: New PSE state diagram variables, logic, and arcs for IClass\_LIM handling.

BREAK AT 3:00 PM, RECONVENED AT 3:17 PM.

At 3:17 PM, comment resolution resumed.

Presentation: (3:29 PM – 3:54 PM)  
Title: PD Signature v130 (yseboodt\_03\_0516\_pdsig.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Definitions for single- and dual-signature PDs.

At 3:55 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "yseboodt\_03\_0516\_pdsig.pdf".

Presentation: (3:57 PM – 4:24 PM)  
Title: PD inrush (darshan\_18\_0516.pdf)  
Presenter: Yair Darshan, Microsemi  
Discussion: PD inrush considerations.

At 4:25 PM, comment resolution resumed on comments related to this presentation. See database for comments tagged with "darshan\_18\_0516.pdf".

At 4:26 PM, comment resolution continued.

Presentation: (4:46 PM – 4:48 PM)  
Title: Legacy PD state diagram maintenance v112 (yseboodt\_05\_0516\_pdsmllegacy.pdf)  
Presenter: Lennart Yseboodt, Philips  
Discussion: Fixes to the legacy PD state diagram.

Motion #4: Move to reopen comment 147 for reconsideration  
M: Lennart Yseboodt S: Dave Abramson  
Yes: 19  
No: 0  
Abstain: 2  
Motion passes.

At 4:50 PM, comment #147 was resolved. See database for comments tagged with "yseboodt\_05\_0516\_pdsmlegacy.pdf".

At 4:57 PM, the TF reviewed a liaison letter to the NFPA.

Motion #5: Move that the Chair presents the liaison letter to NFPA and SCC18 to the Working Group.

M: George Zimmerman S: Lennart Yseboodt

Yes: 22

No: 1

Abstain: 0

Motion passes.

Motion #6: Move to hold a comment cycle on D1.8 starting no later than June 13, 2016 and closing July 10, 2016, 11:59pm AOE.

M: David Abramson S: Lennart Yseboodt

Procedural, 50%

Passes by voice without opposition.

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CLOSING BUSINESS  
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Having completed the presentations and comment resolution business for the meeting. No further motions of business were offered.

ADJOURNMENT

Motion to adjourn the meeting.

M: David Abramson

MOTION PASSES by voice without opposition.

The meeting was adjourned at 5:24 PM, Thursday, May 26, 2016.

4PPoE TaskForce Attendance

Initial to indicate attendance

Name	Employer	Affiliation	5/24	5/25	5/26	5/27
David Abramsen	David.abramsen@bt.com	TI	DA	DA	DA	
Fred Schindler	Seen Simply	Broadcom, Cisco, TI	FS	FS	FS	
PETER JOHNSON	SIPAS	SIPAS	PJ	PJ	PJ	
Yail Darshan	Microsemi	Microsemi	YD	YD	YD	
5 LEONART YSRBOODT	Philips	Philips	LY	LY	LY	
GAOLING ZOU	MAXIM	MAXIM	GZ			
CHRISTIAN BEIA	STMicroelectronics	STMicroelectronics	CB	CB	CB	
David Tremblay	Hewlett Packard Enterprise	Hewlett Packard Enterprise	DT	DT	DT	
Phillip Browntee	TDK	TDK	PB	PB	PB	
10 Chris Bullock	Cisco	Cisco	CB	CB	CB	
Dylan Walker	Cisco	Cisco	DW	DW	DW	
Rick Froscht	PHiltron	PHiltron	RF	RF	RF	
Craig Chabot	UNH-TEL	UNH-TEL	CC	CC	CC	
George Zimmerman	CME Consulting	CommScope/Cisco/ Aurubin/LTC	GZ	GZ		
15 Valene Maguire	The Semcon Co.	The Semcon Co.	VM	VM	VM	
BRYAN SPARROWHAWK	LEVITON	LEVITON	BS	BS		
STEELING VADEN	SURTEC	SURTEC	SV	SV	SV	
JON LEWIS	DELL	DELL	OL	OL	OL	
DAVID STOVER	LTC	LTC	DMS	DMS	DMS	
20 DAN DOVE	DNS	LTC	DD	DD	DD	

4PPoE TaskForce Attendance

Initial to indicate attendance

Name	Employer	Affiliation	5/24	5/25	5/26	5/27
JEAN PICARD	TI	TI	JP	JP	JP	
FRED DANSON	CAENOURS	CAENOURS	FD	FD	FD	
SHANTAR FELDMAN	MICROSEMI	MICROSEMI	SF	SF	SF	
Heath Stewart	LTC	LTC	HS	HS	HS	
5 PETE CIBULA	INTEL	INTEL	PKL	/	PKL	
Miklos Lukacs	Silicon Labs	Silicon Labs	Lukis Miklis	Lukis Miklis	Lukis Miklis	
Paul Vanderlaan	Berk-Tek LLC	Berk-Tek LLC	PZL	PZL	PZL	
Andy Gardner	LTC	LTC	AG	AG	AG	
Bryan Morrill	CommScope	CommScope	BMM	BMM	BMM	
10 Geoff Thompson	GRACIASA	Independent	G	G	G	
Mohammad Ahmed	TE Connectivity	TE Connectivity	MA	MA	MA	
Wael Diab	HUAWEI	HUAWEI	WD	WD	WD	
Stephen Johnson	UNH-IOL	UNH-IOL	SJ	SJ		
HARISH WASH	Huawei	Huwei	H	H		
15 Ardeshir Mohammadian	Brocade	Brocade		AM	AM	
Victor Renteria	Bal Fusa	Bal /TRP		VR	VR	
<del>BRIAN SPANGLER</del>	<del>LEVITON</del>	<del>LEVITON</del>				
DAVID LAW	HPE	HPE		DL		
Chad Jones				CJ	CJ	
20 Ludwig WINKEL	Siemens AG	~		W	W	

4PPoE TaskForce Attendance

Initial to indicate attendance

Name	Employer	Affiliation	5/24	5/25	5/26	5/27
German Feyh	Broadcom	Broadcom			S.F.	
Steve Carlson	HSD	Marvell, Bosch			SE	
AMRIK BAINS	CISCO	CISCO			AB	
CLARK CARTY	CISCO	CISCO			CAC	
5 Peter Jones	Cisco	Cisco			PT	
theo Brillhart	Fluke	Fluke			TJ.	
10						
15						
20						