



Bitshala

Bitcoin Protocol Development

Group Discussion Session #4 - [P2P](#)



Group Discussion Session  on Friday, May 24, 2024, at 8:00 PM IST

Exercise Submission  Recommend to submit by next Sunday, May 26, 2024

Meeting Notes & Reminders

- Please try to keep your cameras on as these sessions wouldn't be recorded
- In case you have an updated Discord name during group discussion, please let BitShala Discord admins know and they would update your name in the upcoming instruction sheet

Your action items

1. Read study material for Session 4: [P2P](#)
2. Review the assigned group, chapter(s), and question(s) provided below. Prepare your answers for the group discussion.
3. If assigned as a deputy , familiarize yourself with the expectations outlined in the [link](#). Your assistance will be valuable in guiding and facilitating the discussion.
4. Join the assigned Group Discussion room on time.
5. Introduce yourself and answer the assigned questions with the help of the deputy  during the group discussion.
6. After the group discussion, return to the BitShala #Lounge where we conclude the discussion with all Cohort participants.

This week's Chapters:

Week 4: – [P2P](#)

This week's Questions:

Round 1:

- Given the attack surface in P2P, is running a full node worth it?
- How many honest nodes do you need to be connected to be sure you are connected to the right network/blockchain?



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- Does it make sense to have separate networks which are more resistant against P2P attacks, and regular nodes will keep at least one connection to them if they choose so?
- What is the reasoning behind the max inbound and max outbound defaults? For which type of user would they be considered ideal, and when might they be optimized?
- What is the rationale behind the "new"/"tried" table design? Were there any prior inspirations within the field of distributed computing?
- How are anchor connections chosen? In what circumstances would you evict or change them?

Round 2:

- What are feeler connections, and when are they used?
- What can an attacker do if they are able to eclipse a mining pool?
- What is the difficulty of successfully achieving an eclipse attack? What resources and skills would be required to achieve such an attack?
- Why must transaction unlocking scripts only push numbers to be relayed?
- What output scripts are 'IsStandard'?
- Why must transactions be no less than 82 bytes to be relayed?

Exercise:

For exercise please create an account on Github Classroom. The link of the weekly exercises gets updated on [BitShala Github Classroom](#).

For any help related to the exercise feel free to ask questions in the BPD #dev-help of discord.

Study Group, Meeting Link, and Questions:

Main Hall Link: <https://discord.gg/MBvB3ngyDv?event=1224717900892606465>

Respective Group's Discord Link:

Group 1: <https://discord.gg/MqeQRNcm5k>

Group 2: <https://discord.gg/RNa8bJZF8e>

Group 3: <https://discord.gg/gm8DQSU6G>

Group 4: <https://discord.gg/9uXzCDvc4e>

Group 5: <https://discord.gg/D8qU7NXxAR>



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Group 6: <https://discord.gg/cwahn2xtw9>

Group Member Question

Group	Name / Discord Name	Email	Round 1	Round 2
Group 1	Sambhav	visualstudiosam7@gmail.com	Given the attack surface in P2P, is running a full node worth it?	What are feeler connections, and when are they used?
	Bala	learnbtc.rcytr@slmails.com	How many honest nodes do you need to be connected to be sure you are connected to the right network/blockchain?	What can an attacker do if they are able to eclipse a mining pool?
	ahasunos / thevirtualbuddy	sonusaha110@gmail.com	Does it make sense to have separate networks which are more resistant against P2P attacks, and regular nodes will keep at least one connection to them if they choose so?	What is the difficulty of successfully achieving an eclipse attack? What resources and skills would be required to achieve such an attack?
	Savil 🧐	leronira@protonmail.com	What is the reasoning behind the max inbound and max outbound defaults? For which type of user would they be considered ideal, and when might they be optimized?	Why must transaction unlocking scripts only push numbers to be relayed?
	Faisal Qureshi	figureshi@proton.me	What is the rationale behind the "new"/"tried" table design? Were there any prior inspirations within the field of distributed computing?	What output scripts are 'IsStandard'?
	codingp110	codingp110@gmail.com	How are anchor connections chosen? In what circumstances would you evict or change them?	Why must transactions be no less than 82 bytes to be relayed?
Group 2	Agnivo	ab17ms093@gmail.com	Given the attack surface in P2P, is running a full node worth it?	What are feeler connections, and when are they used?
	Akshay Shukla	akshayshukla734@gmail.com	How many honest nodes do you need to be connected to be sure you are connected to	What can an attacker do if they are able to eclipse a mining pool?



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			the right network/blockchain?	
	Beulah Evanjalín	beulahebenezer77@gmail.com	Does it make sense to have separate networks which are more resistant against P2P attacks, and regular nodes will keep at least one connection to them if they choose so?	What is the difficulty of successfully achieving an eclipse attack? What resources and skills would be required to achieve such an attack?
	Divyansh	divyanshguptaekana123@gmail.com	What is the reasoning behind the max inbound and max outbound defaults? For which type of user would they be considered ideal, and when might they be optimized?	Why must transaction unlocking scripts only push numbers to be relayed?
	yami	yeamlaksirakebede01@gmail.com	What is the rationale behind the "new"/"tried" table design? Were there any prior inspirations within the field of distributed computing?	What output scripts are 'IsStandard'?
	plebji	blearnsp@gmail.com	How are anchor connections chosen? In what circumstances would you evict or change them?	Why must transactions be no less than 82 bytes to be relayed?
Group 3	Basanta Goswami	basantagoswami1999@gmail.com	Given the attack surface in P2P, is running a full node worth it?	What are feeler connections, and when are they used?
	Olanma	ceciliaorji.co@gmail.com	How many honest nodes do you need to be connected to be sure you are connected to the right network/blockchain?	What can an attacker do if they are able to eclipse a mining pool?
	delcin	delcinraj@gmail.com	Does it make sense to have separate networks which are more resistant against P2P attacks, and regular nodes will keep at least one connection to them if they choose so?	What is the difficulty of successfully achieving an eclipse attack? What resources and skills would be required to achieve such an attack?
	Ranjithkumar Annadurai 🧑	ranjithkumarannadurai22@gmail.com	What is the reasoning behind the max inbound and max outbound defaults? For which type of user would they be considered ideal, and when might they be	Why must transaction unlocking scripts only push numbers to be relayed?



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			optimized?	
	Harsh Jain	harshsinyal420@gmail.com	What is the rationale behind the "new"/"tried" table design? Were there any prior inspirations within the field of distributed computing?	What output scripts are 'IsStandard'?
	47h4rv4	atharvabaste@gmail.com	How are anchor connections chosen? In what circumstances would you evict or change them?	Why must transactions be no less than 82 bytes to be relayed?
Group 4	Tavis Mariageorge James	tavisjam1000@gmail.com	Given the attack surface in P2P, is running a full node worth it?	What are feeler connections, and when are they used?
	PAVAN KALYAN S	pk20180708248@gmail.com	How many honest nodes do you need to be connected to be sure you are connected to the right network/blockchain?	What can an attacker do if they are able to eclipse a mining pool?
	BlueHill 🧑	ayushbachan0@gmail.com	Does it make sense to have separate networks which are more resistant against P2P attacks, and regular nodes will keep at least one connection to them if they choose so?	What is the difficulty of successfully achieving an eclipse attack? What resources and skills would be required to achieve such an attack?
	claddy	madscientists1523@gmail.com	What is the reasoning behind the max inbound and max outbound defaults? For which type of user would they be considered ideal, and when might they be optimized?	Why must transaction unlocking scripts only push numbers to be relayed?
	sudonims	nimishshah2000@gmail.com	What is the rationale behind the "new"/"tried" table design? Were there any prior inspirations within the field of distributed computing?	What output scripts are 'IsStandard'?
	Sahil tgs	sahiltgs@gmail.com	How are anchor connections chosen? In what circumstances would you evict or change them?	Why must transactions be no less than 82 bytes to be relayed?
Group 5	mrinmoy	mrinmoyjsaikia@gmail.com	Given the attack surface in P2P, is running a full node worth it?	What are feeler connections, and when are they used?



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	Deepti	ddepp98@outlook.com	How many honest nodes do you need to be connected to be sure you are connected to the right network/blockchain?	What can an attacker do if they are able to eclipse a mining pool?
	Aditya Gupta	gupta878aditya@gmail.com	Does it make sense to have separate networks which are more resistant against P2P attacks, and regular nodes will keep at least one connection to them if they choose so?	What is the difficulty of successfully achieving an eclipse attack? What resources and skills would be required to achieve such an attack?
	Yash Gupta 👨	guptayash1501@gmail.com	What is the reasoning behind the max inbound and max outbound defaults? For which type of user would they be considered ideal, and when might they be optimized?	Why must transaction unlocking scripts only push numbers to be relayed?
	Bhupattii	bhupathiraju7777@gmail.com	What is the rationale behind the "new"/"tried" table design? Were there any prior inspirations within the field of distributed computing?	What output scripts are 'IsStandard'?
	Mango Elephant	mangoelephant@protonmail.com	How are anchor connections chosen? In what circumstances would you evict or change them?	Why must transactions be no less than 82 bytes to be relayed?
Group 6	Ankush Sharesth	a_sharesth@es.iitr.ac.in	Given the attack surface in P2P, is running a full node worth it?	What are feeler connections, and when are they used?
	Praveen	spraveenitpro@gmail.com	How many honest nodes do you need to be connected to be sure you are connected to the right network/blockchain?	What can an attacker do if they are able to eclipse a mining pool?
	bit-aloo	sshourya17@gmail.com	Does it make sense to have separate networks which are more resistant against P2P attacks, and regular nodes will keep at least one connection to them if they choose so?	What is the difficulty of successfully achieving an eclipse attack? What resources and skills would be required to achieve such an attack?
	Kinshuk	007kinshuk@gmail.com	What is the reasoning behind the max inbound and max outbound defaults? For	Why must transaction unlocking scripts only push numbers to be relayed?



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			which type of user would they be considered ideal, and when might they be optimized?	
	P.M.Jesu Melwin 🧐	jesumelwin@gmail.com	What is the rationale behind the "new"/"tried" table design? Were there any prior inspirations within the field of distributed computing?	What output scripts are 'IsStandard'?
	Pallab J D Goswami	pallabjyoti.devgoswami@gmail.com	How are anchor connections chosen? In what circumstances would you evict or change them?	Why must transactions be no less than 82 bytes to be relayed?
	Tanveer	tanveer.x.ansari@gmail.com	How are anchor connections chosen? In what circumstances would you evict or change them?	Why must transactions be no less than 82 bytes to be relayed?