




Bitshala

Bitcoin Protocol Development

Group Discussion Session #2 - [SEGWIT](#)



Group Discussion Session  on Friday, May 10, 2023, at 8:00 PM IST

Exercise Submission  Recommend to submit by next Sunday, May 12, 2023

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. Introduce yourself on [Discord](#) if you haven't already.
2. Read study material for Session 2: [SEGWIT](#)
3. Review the assigned group, chapter(s), and question(s) provided below. Prepare your answers for the group discussion.
4. 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.
5. Join the assigned Group Discussion room on time.
6. Introduce yourself and answer the assigned questions with the help of the deputy  during the group discussion.
7. After the group discussion, return to the BitShala #Lounge where we conclude the discussion with all Cohort participants.

This week's Chapters:

Week 1: – [SEGWIT](#)

This week's Questions:

Round 1:

- What is SegWit?
- Is a non-SegWit node considered a full node?
- What is the difference between a hard and soft fork?
- How should one understand ANYONE_CAN_SPEND outputs? Do nodes with and without the SegWit upgrade behave differently while validating or enforcing?



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- What is the difference between wrapped SegWit and native SegWit addresses?
- How is ECDSA malleable?
- Why do second layer protocols (like Lightning) require transaction malleability to be fixed?
- What was the quadratic sighash problem prior to SegWit? How does BIP 143 solve this?

Round 2:

- What rationale was used to decide on the 4 MB SegWit block weight instead of say a 2 MB block weight?
- How do blocks commit to witness data?
- What is weight versus virtual bytes? How do they differ? How does weight change the relative costs of inputs and outputs?
- How could BIP 9 be considered controversial within the community? How was BIP 148 received when first proposed?
- How does SegWit affect initial block download (IBD)?
- What is ASIC BOOST and what did it have to do with SegWit's deployment?
- How did users know whether miners support SegWit prior to activation?
- What are some address format design goals and requirements discussed in the Bech32 talk? How problematic is the Bech32 mutability issue for v0 SegWit addresses versus for Taproot?

Exercise:

For exercise please create an account on Github Classroom. Here's the link to the Week 2 Exercise: <https://classroom.github.com/a/5jjLTqn6>

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:



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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>

Group 6: <https://discord.gg/cwahr2xtw9>

Group 7: <https://discord.gg/96Qu4NbSgn>

Group Member Question

Group	Name / DiscordName	Round 1	Round 2
Group 1	Mango Elephant	What is SegWit?	What rationale was used to decide on the 4 MB SegWit block weight instead of say a 2 MB block weight?
	Sambhav	Is a non-SegWit node considered a full node?	How do blocks commit to witness data?
	Divyansh	What is the difference between a hard and soft fork?	What is weight versus virtual bytes? How do they differ? How does weight change the relative costs of inputs and outputs?
	codingp110 🤖	How should one understand ANYONE_CAN_SPEND outputs? Do nodes with and without the SegWit upgrade behave differently while validating or enforcing?	How could BIP 9 be considered controversial within the community? How was BIP 148 received when first proposed?
	Ranjithkumar Annadurai	What is the difference between wrapped SegWit and native SegWit addresses?	How does SegWit affect initial block download (IBD)?
	Olanma	How is ECDSA malleable?	What is ASIC BOOST and what did it have to do with SegWit's deployment?
	Harsh Jain	Why do second layer protocols (like Lightning) require transaction malleability to be fixed?	How did users know whether miners support SegWit prior to activation?
	Basanta Goswami	What was the quadratic sighash problem prior to SegWit? How does BIP 143 solve this?	What are some address format design goals and requirements discussed in the Bech32 talk? How problematic is the Bech32 mutability issue for v0 SegWit addresses versus for Taproot?
Group 2	yami	What is SegWit?	What rationale was used to decide on the 4 MB SegWit block weight instead of say a 2 MB



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			block weight?
	Deepto	Is a non-SegWit node considered a full node?	How do blocks commit to witness data?
	PAVAN KALYAN S	What is the difference between a hard and soft fork?	What is weight versus virtual bytes? How do they differ? How does weight change the relative costs of inputs and outputs?
	BlueHill 🧑	How should one understand ANYONE_CAN_SPEND outputs? Do nodes with and without the SegWit upgrade behave differently while validating or enforcing?	How could BIP 9 be considered controversial within the community? How was BIP 148 received when first proposed?
	Akshay Shukla	What is the difference between wrapped SegWit and native SegWit addresses?	How does SegWit affect initial block download (IBD)?
	Yash Gupta	How is ECDSA malleable?	What is ASIC BOOST and what did it have to do with SegWit's deployment?
	47h4rv4	Why do second layer protocols (like Lightning) require transaction malleability to be fixed?	How did users know whether miners support SegWit prior to activation?
	Sahil tgs	What was the quadratic sighash problem prior to SegWit? How does BIP 143 solve this?	What are some address format design goals and requirements discussed in the Bech32 talk? How problematic is the Bech32 mutability issue for v0 SegWit addresses versus for Taproot?
Group 3	Faisal Qureshi	What is SegWit?	What rationale was used to decide on the 4 MB SegWit block weight instead of say a 2 MB block weight?
	delcin	Is a non-SegWit node considered a full node?	How do blocks commit to witness data?
	mrinmoy	What is the difference between a hard and soft fork?	What is weight versus virtual bytes? How do they differ? How does weight change the relative costs of inputs and outputs?
	bit-aloo	How should one understand ANYONE_CAN_SPEND outputs? Do nodes with and without the SegWit upgrade behave differently while validating or enforcing?	How could BIP 9 be considered controversial within the community? How was BIP 148 received when first proposed?
	Bhupattii	What is the difference between wrapped SegWit and native SegWit addresses?	How does SegWit affect initial block download (IBD)?
	Savil 🧑	How is ECDSA malleable?	What is ASIC BOOST and what did it have to do with SegWit's deployment?



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	Agnivo	Why do second layer protocols (like Lightning) require transaction malleability to be fixed?	How did users know whether miners support SegWit prior to activation?
	ahasunos / thevirtualbuddy	What was the quadratic sighash problem prior to SegWit? How does BIP 143 solve this?	What are some address format design goals and requirements discussed in the Bech32 talk? How problematic is the Bech32 mutability issue for v0 SegWit addresses versus for Taproot?
Group 4	Tavis Mariage James George	What is SegWit?	What rationale was used to decide on the 4 MB SegWit block weight instead of say a 2 MB block weight?
	Bala 🧑	Is a non-SegWit node considered a full node?	How do blocks commit to witness data?
	Kinshuk	What is the difference between a hard and soft fork?	What is weight versus virtual bytes? How do they differ? How does weight change the relative costs of inputs and outputs?
	sudonims	How should one understand ANYONE_CAN_SPEND outputs? Do nodes with and without the SegWit upgrade behave differently while validating or enforcing?	How could BIP 9 be considered controversial within the community? How was BIP 148 received when first proposed?
	Beulah Evanjalin	What is the difference between wrapped SegWit and native SegWit addresses?	How does SegWit affect initial block download (IBD)?
	Aditya Gupta	How is ECDSA malleable?	What is ASIC BOOST and what did it have to do with SegWit's deployment?
	Pallab J D Goswami	Why do second layer protocols (like Lightning) require transaction malleability to be fixed?	How did users know whether miners support SegWit prior to activation?
	plebji	What was the quadratic sighash problem prior to SegWit? How does BIP 143 solve this?	What are some address format design goals and requirements discussed in the Bech32 talk? How problematic is the Bech32 mutability issue for v0 SegWit addresses versus for Taproot?
Group 5	P.M.Jesu Melwin	What is SegWit?	What rationale was used to decide on the 4 MB SegWit block weight instead of say a 2 MB block weight?
	claddy 🧑	Is a non-SegWit node considered a full node?	How do blocks commit to witness data?
	Md amir	What is the difference between a hard and soft fork?	What is weight versus virtual bytes? How do they differ? How does weight change the relative costs of inputs and outputs?



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	Ayush Bachan	How should one understand ANYONE_CAN_SPEND outputs? Do nodes with and without the SegWit upgrade behave differently while validating or enforcing?	How could BIP 9 be considered controversial within the community? How was BIP 148 received when first proposed?
	Aadarsh	What is the difference between wrapped SegWit and native SegWit addresses?	How does SegWit affect initial block download (IBD)?
	Mccalabrese	How is ECDSA malleable?	What is ASIC BOOST and what did it have to do with SegWit's deployment?
	Praveen	Why do second layer protocols (like Lightning) require transaction malleability to be fixed?	How did users know whether miners support SegWit prior to activation?
	Saurav	What was the quadratic sighash problem prior to SegWit? How does BIP 143 solve this?	What are some address format design goals and requirements discussed in the Bech32 talk? How problematic is the Bech32 mutability issue for v0 SegWit addresses versus for Taproot?
Group 6	Prakash	What is SegWit?	What rationale was used to decide on the 4 MB SegWit block weight instead of say a 2 MB block weight?
	S S Pratap Tanari	Is a non-SegWit node considered a full node?	How do blocks commit to witness data?
	gite	What is the difference between a hard and soft fork?	What is weight versus virtual bytes? How do they differ? How does weight change the relative costs of inputs and outputs?
	Sahil / Tanveer	How should one understand ANYONE_CAN_SPEND outputs? Do nodes with and without the SegWit upgrade behave differently while validating or enforcing?	How could BIP 9 be considered controversial within the community? How was BIP 148 received when first proposed?
	Shivansh Gupta 👨	What is the difference between wrapped SegWit and native SegWit addresses?	How does SegWit affect initial block download (IBD)?
	Sameer	How is ECDSA malleable?	What is ASIC BOOST and what did it have to do with SegWit's deployment?
	Luciana/hazel	Why do second layer protocols (like Lightning) require transaction malleability to be fixed?	How did users know whether miners support SegWit prior to activation?
	Aman Kumar Pandey	What was the quadratic sighash problem prior to	What are some address format design goals and requirements discussed in the Bech32 talk? How



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		SegWit? How does BIP 143 solve this?	problematic is the Bech32 mutability issue for v0 SegWit addresses versus for Taproot?
Group 7	ajeet	What is SegWit?	What rationale was used to decide on the 4 MB SegWit block weight instead of say a 2 MB block weight?
	Makam Aravind	Is a non-SegWit node considered a full node?	How do blocks commit to witness data?
	Panuganti Neha	What is the difference between a hard and soft fork?	What is weight versus virtual bytes? How do they differ? How does weight change the relative costs of inputs and outputs?
	Vasu Khanna 🧐	How should one understand ANYONE_CAN_SPEND outputs? Do nodes with and without the SegWit upgrade behave differently while validating or enforcing?	How could BIP 9 be considered controversial within the community? How was BIP 148 received when first proposed?
	Suparnojit Sarkar	What is the difference between wrapped SegWit and native SegWit addresses?	How does SegWit affect initial block download (IBD)?
	Ankush Sharesth	How is ECDSA malleable?	What is ASIC BOOST and what did it have to do with SegWit's deployment?
	Vinay	Why do second layer protocols (like Lightning) require transaction malleability to be fixed?	How did users know whether miners support SegWit prior to activation?
	Jhelam Rout	What was the quadratic sighash problem prior to SegWit? How does BIP 143 solve this?	What are some address format design goals and requirements discussed in the Bech32 talk? How problematic is the Bech32 mutability issue for v0 SegWit addresses versus for Taproot?