What is Radium Core?

Radium Core is the primary wallet implementation for the Radium blockchain protocol. Radium Core is also the organization tasked with maintaining and updating the core wallet code as well as managing the coin's community. By extension Radium Core acts as the backbone of the Radium SmartChain.

Technical Specifications:  
Ticker: RADS  
RPC Port: 27914  
Block Time: 1 Minute  
Block Maturity: 60 Blocks  
PoS Rewards: 1 Coin / block  
Minimum Stake Age: 6 Hours  
Daily Generation: ~ 1440 coins  
Initial PoW Distribution (Done): 1,008,000

What is the Radium SmartChain?

The Radium SmartChain is both software and a protocol designed to harness the distributed irreversibility of blockchain technology. It is designed to bring that power into the hands of casual and business users alike. Anyone can intuitively use the SmartChain to easily adapt to and utilize the powers of Proof-of-Existence and Proof-of-Ownership.

The Radium SmartChain is a combination of several new protocols which provide the framework for the development of advanced blockchain based functions. All functions are rooted in a 100% decentralized and permissionless system powered by 'Smart Transactions'. At the same time, benefits of a permissioned system are provided through additional core layers. Those layers include required identity verification, methods of recourse in the event of private key compromise, and distributed custodial accounts. Each of these individual components are explained in more detail below.

FAQs

Who are the developers for Radium?

Justin J.: Founder and SmartChain Developer, SmartChain Software Solutions, LLC  
Alaniz: Radium Core Developer and Community Manager  
Timothy Mesker: Founder and Developer, MGR Project Radium, LLC  
Lamptoast: Assistant SmartChain Developer  
Goblynn: SmartChain Beta Testing

How do I buy Radium tokens?

There are multiple exchanges where you can buy Radium tokens including [Poloniex](https://poloniex.com/exchange#btc_rads), [Bittrex](https://bittrex.com/Market/Index?MarketName=BTC-RADS), [Changelly](https://changelly.com/) and [1EX](https://1ex.trade/). These tokens will allow you to use the full functionality of the Radium SmartChain.

Is the SmartChain Open Source?

No, for now it is a closed source project. Perhaps sometime in the future, the source will be published, but there are no current plans to release the source. Note however that the Radium Core code is open source.

What platforms are supported?

Both the Radium Coin wallet and the Radium SmartChain is supported for Windows, Linux, and Mac.

When will Radium be added to XYZ Exchange?

Nearly every respectable exchange does not comment on new coin additions. The development team does not know in advance of any exchange additions.

Is Radium Proof-of-Stake?

Yes.

Can Radium run on a Raspberry Pi?

Radium is an open source proof-of-stake coin, and should compile and run on a Raspberry Pi.

Was there a Premine/Instamine for the Radium Coin?

No. The coin was launched in May 2015. There was an approximately 2 week Scrypt Proof of Work period, followed by decreasing PoS rewards. The PoS reward has recently declined to 1 coin per block.

Will it become to expensive to use the Radium SmartChain if the price of Radium goes up?

No. If/When this becomes an issue, there is code in place to adjust the cost per operation, if need be.

Do you use OP\_RETURN to encode the data?

No. The current protocol encodes the data into fake public keys.

SmartChain Core

SmartChain core is an extension to Radium Core, using special Smart Transactions to create a data layer within the Radium Core chain. A Smart Transaction is a special transaction that contains specially encoded data that becomes immortalized in the block-chain. Smart transactions use a combination of OP\_RETURN and specially generated data addresses which contain hexadecimal data.

Identities

A user creates an Identity when a Radium address is paired with a username and recorded in the block-chain. Identities can also include additional information such as a description of the Identity, a company name, email address, phone number, and several other fields. Once an Identity is recorded in the block-chain, it can be used to manage other various SmartChain functions.

Identity Verification

Users can request that their Identity be verified by a third party who holds a verification key. Currently, only JJ12880 holds a verification keys, however keys will be issued to senior community members as the system expands. This system is currently being expanded. Verification is designed to provide confidence in user accounts, and prevent scamming from accounts with misleading usernames. In order to become verified, a user must prove their identity through an outside medium, such as through Slack, Bitcointalk, Twitter or Telegram.

Text Notes

Users who have created an Identity will be able to record text notes in the block-chain to serve as proof of existence. All notes recorded in the block-chain will be available to anyone who wishes to read or verify them.

DataPrints

Just like humans have unique fingerprints, digital files also have unique "DataPrints". DataPrints are a string of numbers and letters that are generated by passing a file through a cryptographic hashing function. In order to know the DataPrint of a file, a person must have also possessed that file at the time the DataPrint was generated. SmartChain core lets an Identity to prove they had access to a file, at a given point in time by recording that file's DataPrint in the blockchain. SmartChain core alows a user to check the authenticity of a file, by comparing its DataPrint to those previously recorded in the blockchain.

One Click Verify

One Click Verify is a standalone program that allows a user to look up the DataPrint of any file on their computer. The One Click Verify installer creates an option in the windows right click context menu titled "Verify file with SmartChain" that when activated will calculate the DataPrint of the selected file, and check it against known DataPrints in the Radium blockchain. The One Click Verify system operates independently, and does not require installation of Radium core or SmartChain core.