**Corda consensus algorithm ?**

Standard RAFT or Byzantine Fault Tolerant consensus algorithms.

Developers also have the option of implementing their own notary consensus algorithms.

In Corda, consensus is provided by notaries. It is up to the notary operator which consensus algorithm they use. BFT is one option. You can see a Corda BFT notary sample here:<https://github.com/corda/corda/tree/master/samples/notary-demo>.

To answer your questions:

**(1). Who validates the transaction?**

The transaction is validated by a cluster of one or more notaries. Notaries are nodes with the sole purpose of deconflicting double-spend attempts.

**(2). How the consensus is achieved on the transaction?**

Using a standard BFT algorithm. Each node in the notary cluster votes on whether they consider the transaction to be a double-spend attempt. The final decision is based on a majority rule, and can tolerate up to 1/3rd of the nodes in the cluster being malicious.

**(3). How the transaction is committed to the blockchain?**

In Corda, there is no central store of information that the transaction is committed to. The notary cluster simply adds the spent state reference to an internal database table. It will check future attempts to spend states against this table, and reject the spending attempt if the state reference is already stored there.

**Transactions are not in Blocks**

Plain transactions that gets distributed across

**Integration**

Corda's ability to easily integrate with SQL databases and MQ makes that kind of integration quite easy though.

[**Can one single Corda node support multiple parties/accounts?**](https://stackoverflow.com/questions/45020131/can-one-single-corda-node-support-multiple-parties-accounts)

Corda is designed for varied institutions which are not all banks, so it doesn't have a direct concept of "account" like Bitcoin does. If you want to implement customer accounts on top of Corda you need to track the balances yourself and use Corda for inter-institutional transfers. Corda's ability to easily integrate with SQL databases and MQ makes that kind of integration quite easy though.

**Multiple *identities* on a single node, so one machine can do both legal entity A and B at once?**

Corda team is working on it