Fact Sheet for Ethereum

Technology	Ethereum
Link to source	https://github.com/ethereum/wiki http://www.ethdocs.org/en/latest/introduction/index.html https://www.ethereum.org/
Project Origin	From Bit Coin, in motivation to develop decentralized blockchain application platform
Foundation	Vitalik Buterin, 2013, and in 2015 - The Ethereum software project was initially developed by a Swiss company, Ethereum Switzerland GmbH (*EthSuisse*), and a Swiss non-profit foundation, the Ethereum Foundation. Ethereum Foundation (Stiftung Ethereum), Zug, Switzerland.
License	it is both open source software and Free software after the definition of the Free Software Foundation (so-called FLOSS)
Open Source	Yes https://github.com/ethereum
Status	Running, Live
Latest Version Number and release date	Homestead Version,v1.1 and 2016 Mar 14
Operating Systems	Clients available for Linux, Windows, OS X, POSIX
Code Language	Solidity, Serpent, LLL and Mutan
API Available ?	Yes. BlockApps.net is working on it. Truffle, Embark, Mix IDE and Meteor are frameworks.
API restrictions	We have to use the main Ethereum network
Documentation Available	Yes, both white and yellow paper exists https://github.com/ethereum/wiki/wiki/White-Paper
Documentation Quality	Good
Does the system have centralized or distributed architecture?	Distributed Architecture (cant be private)
Mobile support?	Jaxx mobile client / wallet is available to access ether

Possible types of jobs or For what kind of applications is system intended? (e.g. crypto currencies, smart contracts, etc)	Token Systems, Financial derivatives, Identity and Reputation Systems, Decentralized File Storage, Decentralized Autonomous Organizations, Almost many applications where decentralized database can be used like voting, contracts.
Does the system provides a GUI and can this be modified?	We can integrate with Web 3: A platform for decentralized apps. Web3.js API.
Does the system run its own blockchain? Or uses an existing blockchain, or forkes some kind of sidechain?	We have to use the existing ethereum network blockchain and yes we need to fork as a sidechain
Can we exchange the underlying blockchain?	No we cant exchange the underlying blockchain.
Can we build a distributed blockchain with the system?	Yes
Does the system have a P2P architecture?	Yes
Sandbox Available?	Yes, Modern testnet, Private testnet from go ethereum, cpp, pythgo
How complex is the installation?	It is difficult, it has lot of dependencies, like npm, node versions. The test development environment is easy but the modern testnet integration is complex. Ether is needed for all the transactions.
Compatibility with other blockchain implementations?	No
Connections to other systems ?	No
What is used as proof? (proof of work, proof of stake, other)	Proof of Stake
How does the proof work?	The proof of work algorithm used is called Ethash (a modified version of the Dagger-Hashimoto algorithm) and involves finding a *nonce* input to the algorithm so that the result is below a certain difficulty threshold http://www.ethdocs.org/en/latest/mining.html#mining
Who can validate the proof? (everybody, only some miner, etc)	All the nodes in the network can be miner

Is the proof manipulable or can it be replaced?	No. http://www.ethdocs.org/en/latest/mining.html
What kind of incentive(s) does the approach promote to let "someone" participate in the validation of blocks?	They get the transaction fees. Transaction fees = Gas Price * Gas Price
Is it possible to create one own and independent Blockchain with the technology?	NO
List example applications (URL)	http://dapps.ethercasts.com/
Other Details and Remark	Only provides API for their services and they dont allow to create own blockchain. The test development environment “testrpc” behaves differently than the modern testnet. Ether is needed to deploy contract and for each transaction requires some ether. There is a limit in amount of memory allocated for each block. Storing of data cost us more. We can design and issue our own crypto-currency.