



# VSI Services

Amstelveen, 22 november 2017



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# VSI Services

- Currently in investigation phase
- To be announced soon
- Offer the VMS-customer a good eco-system
- Plus extra offerings soon and for the long term

x86

is only the beginning

Blockchain

Cloud

Embedded  
Systems

Hardware  
Strategy



# Expanded Offerings

SERVICES

Application Services

Consulting

Hosting

Managed Services

Government Compliance



What is in store for  
the next  
40 years?

Blockchain

Cloud

Embedded  
Systems

Hardware  
Strategy

# OpenVMS and Cloud

- Private cloud vs Public cloud
- And yes, we have got clustering

# OpenVMS and Blockchain

- Private Blockchain vs Public Blockchain
- And yes, with the latest versions of OpenVMS quite a lot is possible

# Blockchain

- Distributed ledger (grootboek, Hauptbuch, liggare, livre)
- <https://en.wikipedia.org/wiki/Blockchain>

A **blockchain**<sup>[1][2][3]</sup> – originally **block chain**<sup>[4][5]</sup> – is a continuously growing list of **records**, called *blocks*, which are linked and secured using **cryptography**.<sup>[1][6]</sup> Each block typically contains a **hash** pointer as a link to a previous block,<sup>[6]</sup> a **timestamp** and transaction data.<sup>[7]</sup> By design, blockchains are inherently resistant to modification of the data. A blockchain can serve as "an open, **distributed ledger** that can record transactions between two parties efficiently and in a verifiable and permanent way."<sup>[8][not in citation given (See discussion.)]</sup> For use as a distributed ledger, a blockchain is typically managed by a **peer-to-peer** network collectively adhering to a protocol for validating new blocks. Once recorded, the data in any given block cannot be altered retroactively without the alteration of all subsequent blocks, which requires collusion of the network majority.

Blockchains are **secure by design** and are an example of a distributed computing system with high **Byzantine fault tolerance**. **Decentralized** consensus has therefore been achieved with a blockchain.<sup>[9]</sup> This makes blockchains potentially suitable for the recording of events, medical records,<sup>[10][11]</sup> and other **records management** activities, such as **identity management**,<sup>[12][13][14]</sup> **transaction processing**, documenting **provenance**, or **food traceability**.<sup>[15]</sup>

The first distributed blockchain was conceptualised in 2008 by an anonymous person or group known as **Satoshi Nakamoto** and



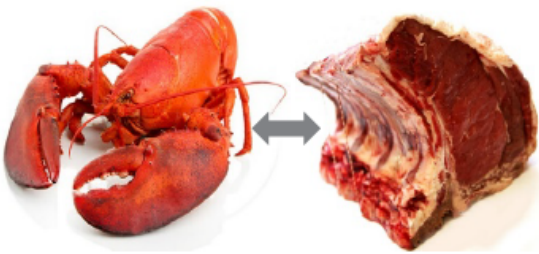
# Blockchain



# Blockchain and Bitcoins

- Blockchain is more than the crypto-currency Bitcoin
- Just google for “IT/consultancy-company” and Blockchain
- Dozens of conferences about Blockchain and especially Bitcoin
- Btw [www.coursera.org](http://www.coursera.org) has free Bitcoin-course
- Sometimes Bitcoin-mania looks like the Black Tulip, some centuries ago

# A brief history of value exchange



Barter



Gold and Silver



Different Banks, Different Notes



Central Bank

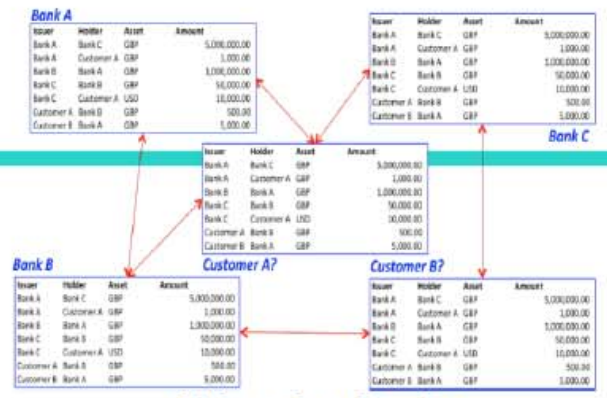
**FIRST BANK OF WIKI**  
 1425 JAMES ST. PO BOX 4000  
 VICTORIA BC V8X 3X4 1-800-955-5555

CHEQUING ACCOUNT STATEMENT  
 Page: 1 of 1

Statement period: 2003-10-09 to 2003-11-05  
 ACCOUNT No: 00005  
 121-456-7

Date	Description	Ref.	Withdrawals	Deposits	Balance	
2003-10-09	Previous balance				0.05	
2003-10-14	Payroll Deposit - HOTEL			664.81	664.86	
2003-10-14	Web Bill Payment - MASTERCARD	0655	200.00		464.86	
2003-10-16	ATM Withdrawal - INTERAC	0990	21.25		443.61	
2003-10-16	Fees - Interac		1.50		442.11	
2003-10-20	Interac Purchase - ELECTRONICS	1675	2.50		439.61	
2003-10-21	Web Bill Payment - AMEX	5114	300.00		139.61	
2003-10-22	ATM Withdrawal - FIRST BANK	0064	100.00		39.61	
2003-10-23	Interac Purchase - SUPERMARKET	1686	39.08		0.53	
2003-10-24	Interac Refund - ELECTRONICS	1675		2.50	3.03	
2003-10-27	Telephone Bill Payment - VISA	2475	6.77		36.76	
2003-10-28	Payroll Deposit - HOTEL			664.81	701.57	
2003-10-30	Web Funds Transfer - Firm SAVINGS	2620		50.00	751.57	
2003-11-03	Pre-Paid Payment - INSURANCE		33.55		718.02	
2003-11-03	Cheque No. 405		100.00		618.02	
2003-11-06	Mortgage Payment		710.40		-92.47	
2003-11-07	Fees - Credit Card		5.00		-97.47	
2003-11-08	Fees - Monthly		5.00		-102.47	
*** Totals ***					1,616.63	1,442.61

Ledger



Blockchain



clay tablets



papyrus



tally sticks



double entry book keeping



spreadsheets



distributed ledger



Bitcoin-calculations...

