Satellite Broadband Services Provider

araMISKa
broadband reality
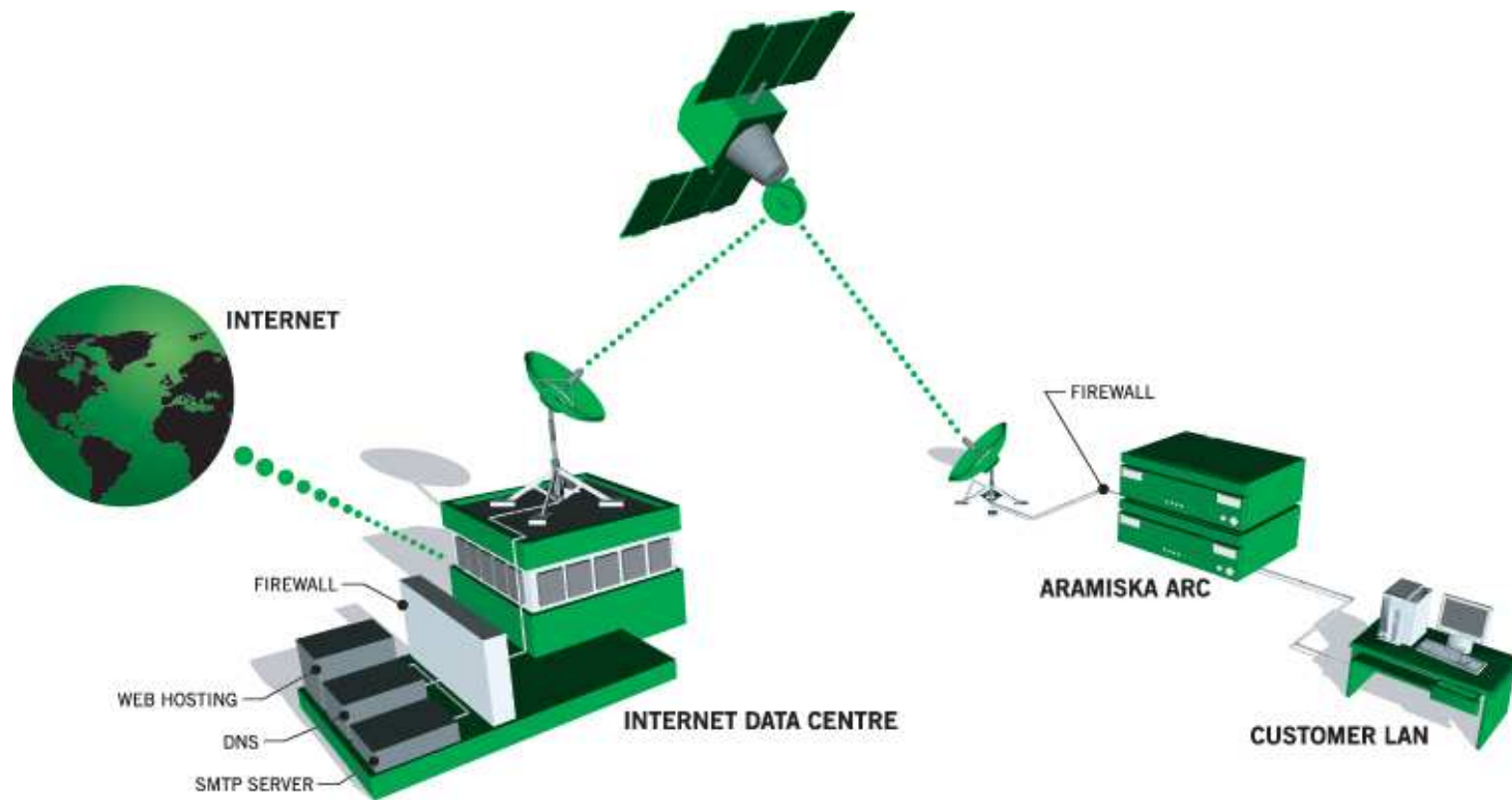
Corporate Overview

November 2004

Erik Groen

Aramiska : *the number one* alternative in Business Broadband

- Founded in late 2000 and launched commercial service in Q1 2002

- Provides broadband data communications services to European Small and Medium sized Business (SME)

- Addressable market is expanding to Larger Corporations and consumers through WiFi partnerships

- Over 3,000 business customers today in the UK (main focus), France, Spain and Benelux

- Innovative two-way broadband satellite network that is yet to be copied

- Clear first mover advantage -> the European market leader in the provision of broadband via satellite
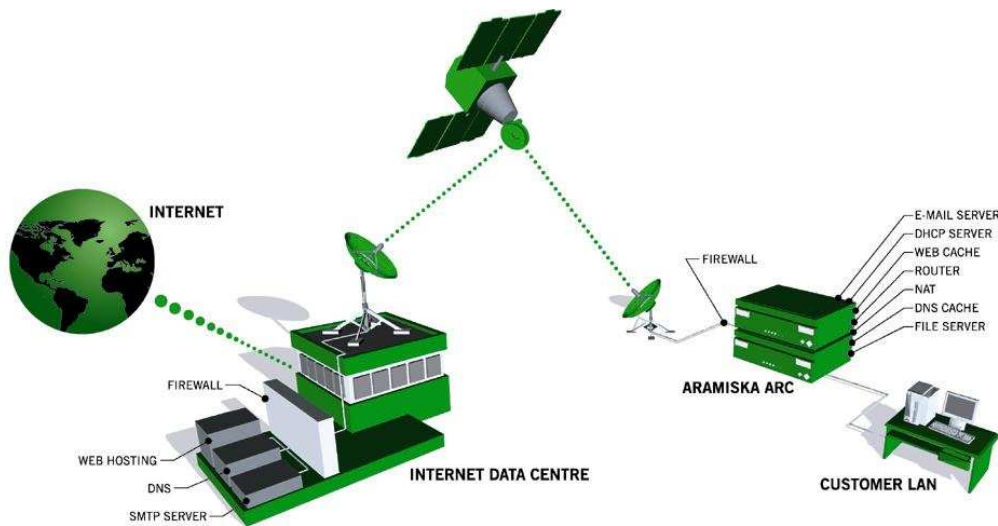
Aramiska Network

Footprint

Network Concept : The Open Standards Vision

Aramiska has built a unique Open Standards Based Network

DVB-RCS
The Aramiska network is the largest DVB-RCS based network in the world with state of Art feature such as Turbo-coding or MF-TDMA.

LINUX
The Aramiska network is one of the largest distributed Linux networks with 3,000 Linux PC running multiple services and network management applications

Aramiska's Uplink near Brussels, Belgium

Aramiska Uplink

- **AB2 Ku-Band satellite 8 $^{\circ}$ West**

- **Return-Link ("RT")**

- **Uses the 14.0 - 14.25 GHz band used in multi- carrier, high-gain operation.**

  - **Multiple FW carriers with different QPSK FEC rates**

- **Forward-Link ("FW")**

  - **13.0 – 13.25 GHz band is used in a dual carrier per transponder operation**

  - **Multiple pools of carriers with different QPSK FEC or TC rates**
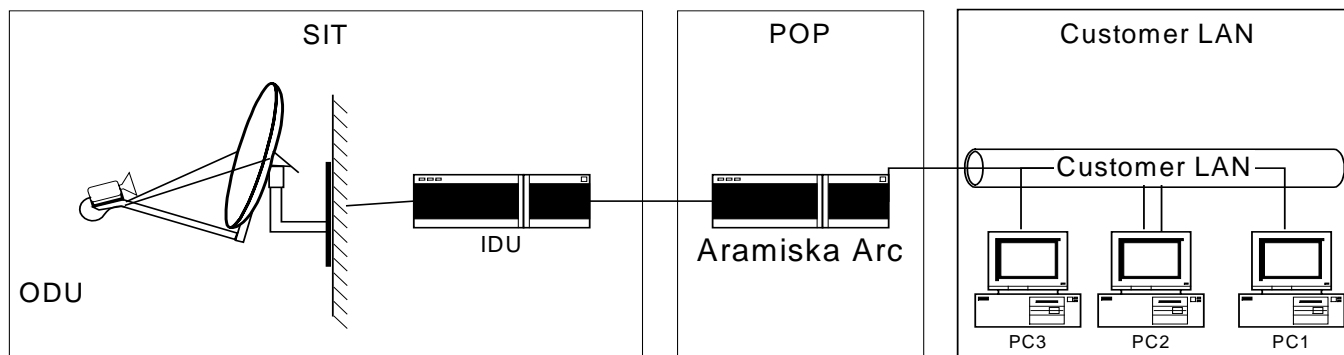
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Customer Premises Equipment

IIDU

Consisting of a Demodulator (DVB-S), a Burst Modulator and a DVB-RCS processor, which maps IP packets (over Ethernet) to and from the DVB-RCS air int.

AARC

PC Intel Celeron 1.7Ghz/128MB MM/40 GB disk running Linux 2.2 /Redhat 7.x
Including series of services, such as :

-DNS Caching
-HTTP Prefetching
-TCP acceleration
-Web Caching
-E-mail server
-Anti-virus
-Firewall
-NAT, DHCP
-File Storage

SIT

POP

Customer LAN

ODU

IDU

Aramiska Arc

Customer LAN

PC3   PC2   PC1

Aramiska offers a **Managed Broadband Internet Service** for Business Users and Rural Communities
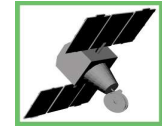
Broadband Access

Business Internet

Network Security

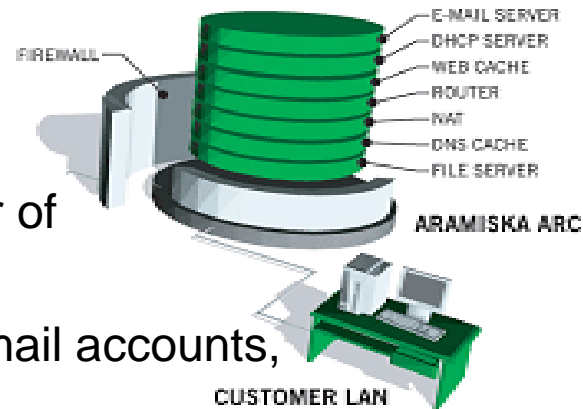**Every**thing included in **one fixed monthly or annual fee.**

Broadband Access

aramiska
broadband reality

	Broadband Access	ARC$_{500}$	ARC$_{1000}$	ARC$_{2000}$
Max speed	Downstream	512	1024	2048
(Kbps)	Upstream	128	256	512
	Guaranteed speed (Kbps)	64/32	128/64	256/128

- **Connects locations across Europe**

- **Reliable and 99.7% of time available**

- **Standard package : peak/guarantee ratio downstream 1:8, upstream 1:4**

- **Fast surfing enabled by pre-fetching, caching and DNS on ARC**

- **Unlimited monthly data transfer**

Business Internet

aramiska
broadband reality

- **Mail Server**
  - ➤ Unlimited number of email addresses
  - ➤ Easy set-up of email accounts, groups, aliases
  - ➤ Remote mail access

- **Port Forwarding**
  - ➤ Up to 10 entries on ARC1000
  - ➤ Up to 20 entries on ARC2000 and ARC2000+
  - ➤ Available on ARC1000, ARC2000 and ARC2000+

E-MAIL SERVER
DHCP SERVER
WEB CACHE
ROUTER
NAT
DNS CACHE
FILE SERVER
FIREWALL
ARAMISKA ARC
CUSTOMER LAN

- **Domain names**
  - ➤ One free Registration or transfer
  - ➤ One domain name for multiple ARCs

- **Web Hosting**
  - ➤ 100 MB available
  - ➤ Web creation tool

- **Service Levels reporting**
- **Monitoring of visited websites on the ARC**
- **Shared storage facility 20 GB**
- **Easy integration of users to LAN with Dynamic Host Configuration Protocol**
- **All year, around the clock Free Customer Service**
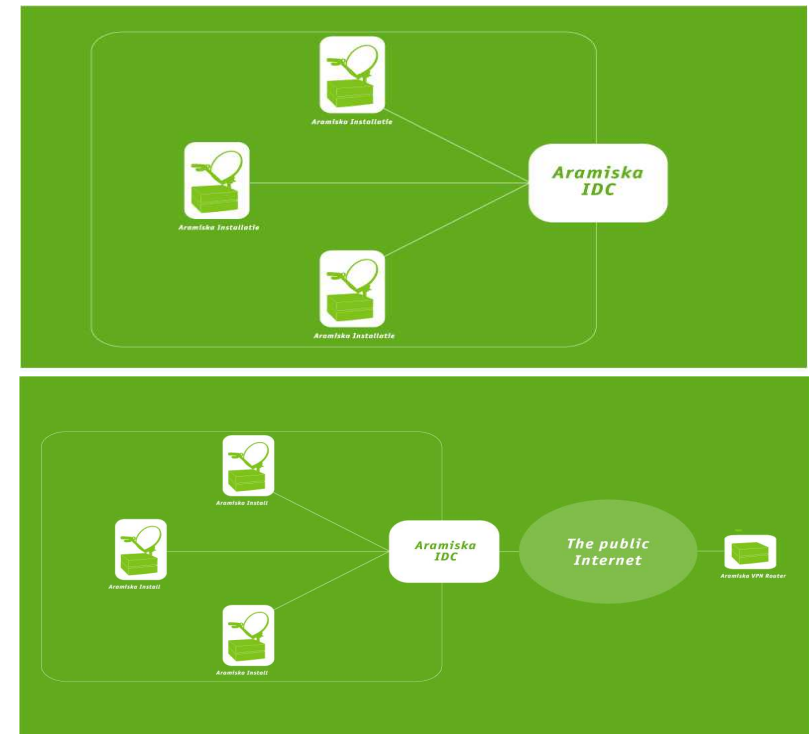
Network Security

- Aramiska owns and manages the end-to-end network with no third party involvement

- Firewalls at Internet Centre and ARC

- 24x7 End-to-End Monitoring

- Internet Centre, Network Operation Centre and Customer Service located at the core of the Network

- Individual PCs hidden from the Internet by Network Address Translation (NAT)

- Virus scanning for incoming, internal and outgoing email with automatic updates

- Secure connections by VPN (PPTP & IPSEC)
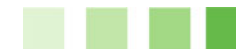
- Aramiska Managed VPN service

Managed VPN: Aramiska to Aramiska and Aramiska to Internet

- Entirely managed VPN

- Support for all (A)DSL, Cable, Satellite or fixed connections

- Secure connections for remote sites with central location

- Use of entire Aramiska Bandwidth

- Setup user-friendly with ARC web-interface

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Four Services, three ways of paying, suitable options for EVERYONE!

Contract Type	Initial amount	ARC500	ARC1000	ARC2000	ARC2000+
		Monthly	Monthly	Monthly	Monthly
Monthly Rental	Installation: €750 or 12 * € 70	€299	€399	€549	€ 599
		Yearly	Yearly	Yearly	Yearly
Monthly Rental	€ 750	€3300	€4400	€6050	€6750
Purchase	€ 4850	€1650	€2750	€4500	€ 5100

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Uniquely positioned as *the alternative European Broadband Services player*

Conclusion

Weekly report

Aramiska
Network statistics

Week ending
31-10-2004

Average download speed

ARC500	472 kbps
ARC1000	941 kbps
ARC2000	1777 kbps

Network availability
99.99 %

Days to install
19 days

- **Aramiska is running a unique, proven two-way high speed open standard based satellite access technology that provides unprecedented performance**

- **The "Operations Excellence" is driving the day-to-day activities of Aramiska making a reality the delivery of a "State of Art" Broadband Service to its Customers**

STEP 3 PICK A BROABAND ISP

ISP TOP 5 LIST

Best for customer service

THE **NUMBER ONE** ALTERNATIVE FOR BUSINESS BROADBAND