

Curriculum Vitae

Personal information

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Profile

Senior Network Engineer / Network Design Architect with experience in the field of ISP/Telco networks. As of 2000 responsible for advice, design, implementation and manage of the networks of Wanadoo Nederland, Casema, Port of Rotterdam. I have represented Wanadoo Nederland numerous times within the France Telecom organization in technical committees. I am very capable to work in very stressful situations. Capable to work in teams and on individual basis. Strong points are: Analytical, flexible and eager to learn new material.

Courses

September 2012	CISSP Certification
Januari 2007	Cisco Networks 2007
October 2005	CCIE Bootcamp
April 2005	Cisco Network Design course (CCDP)
February 2005	ECI Telecom Hi-FOCUS4 DSLAM course
June 2004	Prince 2
February 2004	Juniper (ERX series)
Augustus 2003	Cisco QoS course
November 2002	RIPE NCC LIR course
September 2002	Cisco Certified Network Professional (CCNP)
July 2000	Cisco Certified Network Associate
May 2000	ITIL Essentials
March 2000	Microsoft Certified Systems Engineer
1994-1998	MTS Technische Informatica
1993-1994	MAVO

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Professional experience

September 2007 – Current Edgenetworks

Function: Sr Technical Consultant / Design Architect

Rabobank Bouwfonds Communicatie infrastructure Fund (RBCIF)

Hired by the fund to write, run and negotiate a RFQ for active network equipment to realise RBCIF's FttH ambitions (RBCIF is owner of CAIWAY, with 155K TV and internet userconnections). Next to the active equipment the RFQ includes CPE, OSS/BSS and support-contacts. Part of the RFQ is the in-depth study between P2P and GPON as the preferred access-technology. Responsible for writing the High-level and low-level design for the complete FttH network (all 155 connections will be transformed to FttH).

ING network design

Hired by ING as a network designer to design and migrate their main internet connections (towards the datacenters) and migrated the underlying ATM connections towards Ethernet.

Rotterdam Harbour network design

Hired by Getronics PinkRocade en KPN as Lead-architect for the high and low level network design for the complete harbour. This includes radar, marifonie, CCTV, PABX and office traffic (65 locations interconnected on own dark-fiber infrastructure). Resulting in a carrier-grade MPLS network with build-in management intelligent.

End-to-End network design for IBWimax

Lead-architect for the startup company IBWimax and responsible for the network design of the complete network. A multifunctional Wimax operator with an ambition to have nationwide coverage based upon IEEE 802.20 (WMBA aka HC-SDMA). This provider works with frequencies in the 1800GHz band (GSM based). Responsible for the BTS, distribution, Core, datacenter locations with multiple connections to external parties and internet-exchanges.

Responsible for acquiring the Internet provider status and related issues for IBWimax (AS-number, valid public IP space, etc). Developing a WiFi-WMBA modem based upon a PPPoE stack, using "openWRT" (lightweight LINUX kernel).

March 2006 – September 2007 Getronics PinkRocade (Infrastructure Solutions)

Function: Sr Technical Consultant

Proof-of-Concept Wimax network

Develop a scalable and multifunctional Wimax network for a new service-provider. This network is based on fiber-optical Ethernet backhaul and PPPoE termination via Cisco 7609 MWAN BRAS function. Together with Kyocera Wimax BTS (based on 1,7MHz IEEE 802.20D standard). Wimax is a Wi-Fi like technology with an action-radius of 10Km.

Perl script's

Making Perl script's for a big LAN migration (+200 Cisco switches). All the configuration are collected, adjusted (VLAN, IP-subnets, eq are changed) and implemented to the new switches. Via these scripts the implementation-time is decreased 10 minutes. It also removes possible "human-errors".

EoMPLS course

Develop and give EoMPLS courses to interne and external employees. The course is based on Cisco hardware

Proof-of-Concept for "Line-rate encryption" solution for the Dutch Space and Aviation institute

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Validation of a hardware based security solution to encrypt 1Gbps (line-rate). Setup a test-plan, success-factors, implementation plan. Run the tests with testing-equipment (including smart-bit).

Design a surveillance-network for the metro in Barcelona (Multicast)

Design a high-level design for a new multicast camera-surveillance network for the metro in Barcelona for a partner (NKF-Telecom Nederland) based on Cisco equipment.

Backbone upgrade (implementation EoMPLS en Multicast)

Design (high/low-level) and implement a business Ethernet service for a Dutch Cable-operator (Casema) based on existing Cisco components (7609, 7304, 3550). Based on EoMPLS in combination with MPLS traffic-engineering and multiple LAN switching protocols a network is created with very low network convergence times (<300ms). The project also included a proof-of-concept.

Develop a Data-Retention proposition

Develop together with partners a commercial proposition for ISP for a managed Data-Retention service. Give presentations/workshops for internal and external employees.

FTTH platform

Design an End-2-End Fiber-to-the-Home platform for a Dutch ISP. Including a Proof-of-Concept, High/Low level design and implementation plan/documentation. The platform is based on Cisco 4510R switches. With single- strained fiber going to the households.

Pre-sales support

- Support the Account-managers of the Telco-sales department within Getronics PinkRoccade.
- Support the sales-desk of the "Infrastructure Solutions" department within Getronics PinkRoccade.

Designs / RFP

Reply on multiple RFP/RFI's for customers and make high/low level designs.

May 2001 – February 2006 France Telecom (Wanadoo Nederland B.V.)

Function: Sr. Network Engineer / Network Architect

IPTV

- Do a study to implement IPTV on the current (dual-play) architecture DSL network of Wanadoo NL
- Make the design-guidelines to implement the sourced France-Telecom solution (taking all the possible changes into account).
- High-level/Detailed design for the interconnection between France-Telecom <-> Wanadoo NL and Wanadoo NL <-> content providers.

ULL Project

Network Architect for the new xDSL network of Wanadoo NL.

- Responsible for making the RFP for the backhaul transport network and the DSLAM's and the selection process between the providers and vendors.
- Responsible for the design of the access and transport network including the DSLAM's with as main focus Triple play services. This design is based on a Metro Ethernet with as key components Cisco 6500 en 4500 switches. The network authorization is based on DHCP instead of PPP sessions.

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- Main focus points where Security , Redundancy, QoS (based on DiffServ), Routing , Access methods and LI

Legal Interception

- Technically responsible for the design and implementation of the LI solution for Wanadoo NL network based upon the Dutch government standard TIIT 1.0.1. This included MAIL, IP and H323 Voice traffic.
- Give technical advice for Wanadoo NL in the technical committee of the Telco/ISP and the Dutch government.

Orange NL

- Responsible of the design of network connections of all the Orange NL shops in the Netherlands. A migration from expensive MCI Worldcom lease-lines to DSL connections from Versatel (Versa-point)
- Responsible of the design and implementation of network connections of all the Orange NL shops in the Netherlands. A migration from DSL connections from Versatel (Versa-point) to the Wanadoo NL DSL network.
- Responsible of the design and implementation of the interconnection between Orange NL and other mobile operators for the exchange/transfer of MMS messages on the dedicated MMS VLAN of the Amsterdam Internet Exchange. Protocols used are SS7, IPSEC and BGP-4.

Test-Lab

- Building a test-lab environment for new releases, new features, proof of concept tests and simulations for trouble-shooting. Mirror network of transport and access network, including (4500, 7200, 6500/7600, 12000 routers) and facility servers (TACACS, DHCP, NTP, Syslog, MRTG, FTP, TFTP, SNMP).
- Building of Perl test script to test network security features.
- Setup of CVS server to keep track of all the changes of the configurations.

Datacenter/Office Network Wanadoo NL

- Responsible for a security audit of both the intern Office network and the production network of Wanadoo NL
- High/Detailed design for the Office network with as main focus new LAN security features (accomplished with Cisco DHCP snooping, IEEE 802.1X authentication, Dynamic ARP inspection en IP Source Guard). This network is based on Cisco 4500, 3600 en 6500 (including WLAN access-points).
- Responsible of the roll-out and writing of new operational procedures.
- Responsible of the new design of the Wanadoo NL datacenter.

KPN Wholesale (Mxstream) interconnection

- Responsible for the design and the migration towards a new interconnection to service 80 K Wanadoo DSL customers via the KPN MXstream wholesale service. This interconnection was migrated for a relative expensive (Ethernet-port/€ ratio) Cisco 12000 towards Cisco 7600 routers.

Setup of Project structuur

- Responsible for setting up a new technical structure to be followed for medium/large internal projects. This mainly based on Price2 material.
- Giving internal seminars to explain this structure.

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Cable Wanadoo (partnership with Casema NV)

- Technical responsible for all new, maintaining all existing interconnections and solutions/services with Casema NV for the Wanadoo Cable products. These are mainly Gigabit- Ethernet connections with BGP-4. For the EuroDocsis platform of Casema NV these types of interconnections are within a MPLS VPN network this in combination with L2TP tunnels.
- Responsible for by-monthly audits on software and hardware releases on the used hardware An delivery and analyze of the appropriate reporting of the audits
 - Focus points of the audits are Security, Redundancy, stability and QoS
- Roll-out of changes to the platform (based on PPPoE or L2TP sessions using Redback SMS1800 en SMS10000) serving 150K customers.

Backbone Wanadoo NL

- Design a new Backbone network for Wanadoo NL in the Amsterdam metropolitan area using mainly dark-fibers. Based on one or multiple 1Gbps or 10Gbps Ethernet connections. Complimented with SDH POS interfaces (STM1 or STM4) at the distribution (aggregation) layer. CWDM is used to more effectively utilize fiber connection with multiple 1Gbps links.
- Optimize OSPF en BGP-4 routing within the existing and new parts of the network.

Augustus 2000 – April 2001 EuroNet Internet B.V. / Wanadoo Nederland B.V. (Consultancy via RBC IT)

Function: Network Consultant

- Daily maintenance and improvement of the Internet-network of Casema NV network that is taken over bij EuroNet Internet BV.
- The migration of the AS8215 (Previous Casema NV) towards the EuroNet Internet AS5390. Integration of all the public and private BGP-4 peerings of EuroNet and Casema to one administrative area.
- Upgrade the overall bandwidth capacity, placing NetApps Netcache servers (at critical points in the network) using WCCP protocol.
- Project engineer for the Kennisnet project.
Kennisnet is a network to connect all the schools in The Netherlands via the Cable infrastructure. This is a indicative by the Dutch government. EuroNet is acting as a transit backbone for the Casema Cable network towards the NLTree backbone.
- Responsible for the design and implementation of numerous VPN's for customers using MPLS VPN.
- Design and rollout of networks for multiserver webhosting platforms within EuroNet based on load-balancers. One of them being NVM Funda web site.
Project engineer for the Dutchbone-project. This is the network of all the France-Telecom entities within The Netherlands (Dutchtone Group = EuroNet Internet, Casema NV and Dutchtone "Former Orange NL"). Connecting business customers via lease-lines and roll-out new POP locations via Cisco 12008 en 7507 router based on serial interfaces of DS3, STM-1. Fast-Ethernet and Gigabit-Ethernet.

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February 2000 – July 2000 KPN Telecom (Consultancy via RBC IT)
Function: Network Engineer

Working on the changedesk of the ISU (Internet Service Unit) department. The changedesk is responsible for all the changes / maintenance on the dial-in wholesale network of KPN Telecom. This responsibility is including authentication servers of the dial-in network.

- Making standard configurations for the Cisco CPE routers.
- Clean-up the Frame-relay network used as a transport network for the dial-in wholesale network.
- Build the customers connections.
- Have contact with the customer at the time of connections and running the ATP (Acceptance Test Procedure) with the customer.
- Make documentation and the setup of work instructions and procedures for the Chagnedesk.
- Training permanent KPN staff.

June 1999 – February 2000 Counsel of Amsterdam (Consultancy via RBC IT)
Function: Senior Systems Engineer

- Support of the helpdesk of the city counsel “Oud-Zuid” with the migration of Novell 3.12 towards 4.11.
- Train permanent staff of the Helpdesk.
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- Project Engineer and Team-leader of the project “Werkplekstandaardisatie” (total of 550 work verspreid over meerdere vestigingen).
- Exchange Mail administrator, responsible for the planning and implemenetation of extrenal internet and mail servers for the Amsterdam city counsels “Oud-Zuid” and “de Pijp”.
- Migrate/intergrate two Windows NT domains of the two city counsels to one.

Augustus 1998 – June 1999 Arthur Andersen (Consultancy via RBC IT)
Function: Systems Engineer / Junior Network Engineer

- Do alle common network changes/maintenances on the Novell 3/4 and Windows NT 4 (total of 900 users).
- Support of second and third line support on software and hardware problems.
- Implement backup facility for the Eindhoven sites (based on DLT technology and Archserve).

Internship MTS Technisch Informatica

July 1997 – Augustus 1998 Haagland IT

- Design networks of schools based on Ethernet connections (r200 connections).
- Implement of networks and software.
- Making Planning maintenance and changes.
- Have/keep contact with the customer (board of the school) on IT related issues.
- On multiple project by team-leader.
- Mainenace own school network (total of 400 users).
- Research and Development to new technology that can be used in the school networks.

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Technical Knowledge

Knowledge of the following protocols:

TCP/IP (IPv4 en IPv6), IPX, X25, PPP (PPPoE/PPPoA), L2TP Multicast (PIM,IGMP)

Knowledge of the following circuit-switched and packet switched netwerken based on:

xDSL, ISDN, ATM, Frame-relay, Ethernet, FDDI, PPPoE, PPPoA, CHAP, PAP, MPLS L2/L3, QoS, CWDM, IPSEC, Multicast.

Knowledge of the following LAN switching protocols:

VTP, 802.1Q, ISL, STP(d/s/w), Q-in-Q, SPAN, LAN security features (DAI, DHCP snooping, IPSG, 802.1X authentication), LAN QoS, CGMP, HSRP, VRRP, GLBP.

Routing protocols:

ISIS, OSPF, BGP-4, RIP(v2), IGRP, EIGRP

Knowledge of the following management/AAA protocols:

Tacacs+, NTP, Syslog, FTP, TFTP, SNMP, DHCP, RADIUS, CHAP, PAP, 802.1X, RCP, Netflow,

Hardware:

Switches, Routers, Load-Balancers, Firewalls, IDS, DSLAMs of the following vendors:
Cisco, Redback, Alteon/Nortel, Juniper

Operating Systems:

Windows (NT/2000/XP)

FreeBSD

Linux

Numerous VMware versions

Software:

Perl, MRTG, CVS, Bugzilla, SNORT IDS, Radiator, Nagios, DHCP ISC, knowledge of numerous security tools and security mitigation software, PGP

Hobbies, Interests

Golf, Go-Karting, Windsurfen, car's

Languages

Dutch and English fluently both spoken and written