

The logo for TUCANA, featuring a blue square icon with white geometric lines on the left, followed by the word "TUCANA" in a bold, blue, sans-serif font.

TUCANA

Masters in Measurement

**De voordelen van
netwerkoptimalisatie**

15 – 09 - 2016

Marcel Golverdingen

Wie is Tucana en wat doen we?

- Pan-Europese leverancier met vestigingen in België, Frankrijk, Duitsland en Nederland
- Test- and Meetoplossingen en gerelateerde applicaties/services
- Quality & Performance testing, Protocol diagnostics, Security, Network Management en Monitoring
- Consultancy, SW ontwikkeling, training, outsourcing, helpdesk en onderhoud
- Meer dan 25 jaar ervaring.....

Onze klanten

Providers



Telco & IT Manufacturers



Others

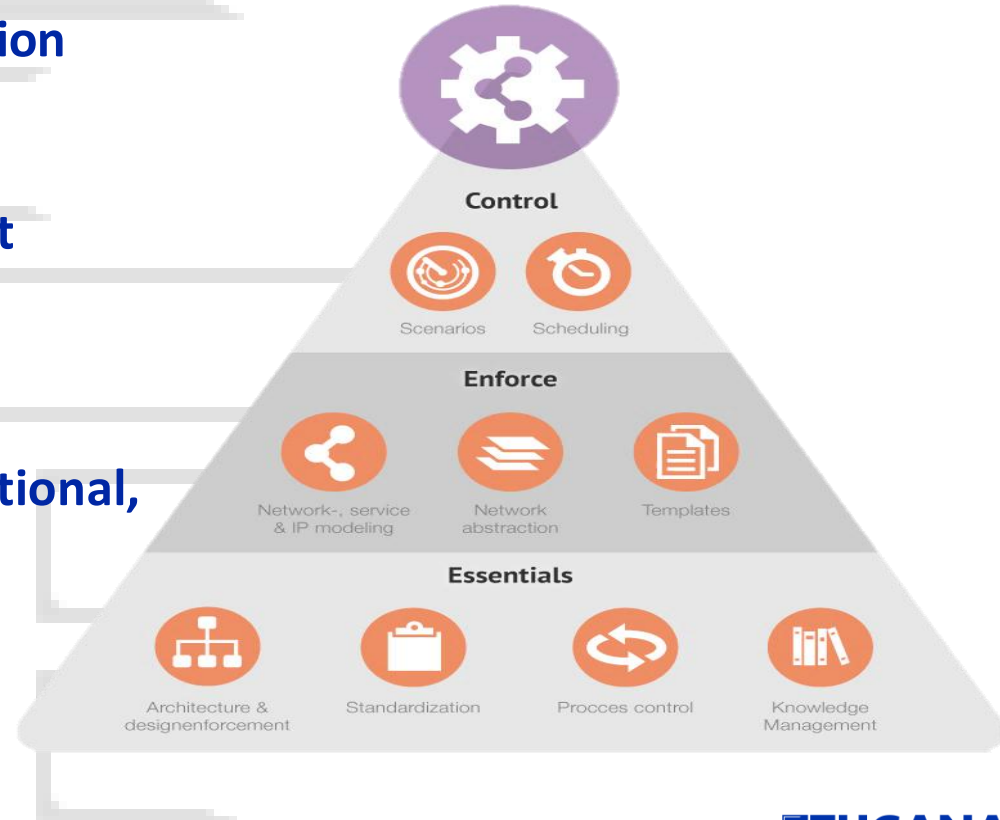


De uitdagingen in het datacenter:

- **Optimale performance vs. lagere kosten (zowel CAPEX & OPEX)**
- **Minimaliseren downtime / onderbrekingen**
- **Zsm signaleren en uitschakelen van security threats**
- **Optimale zichtbaarheid van het netwerk (geen blindspots)**
- **Signaleren van 'misbruik' binnen het netwerk**
- **Flexibiliteit en schaalbaarheid**

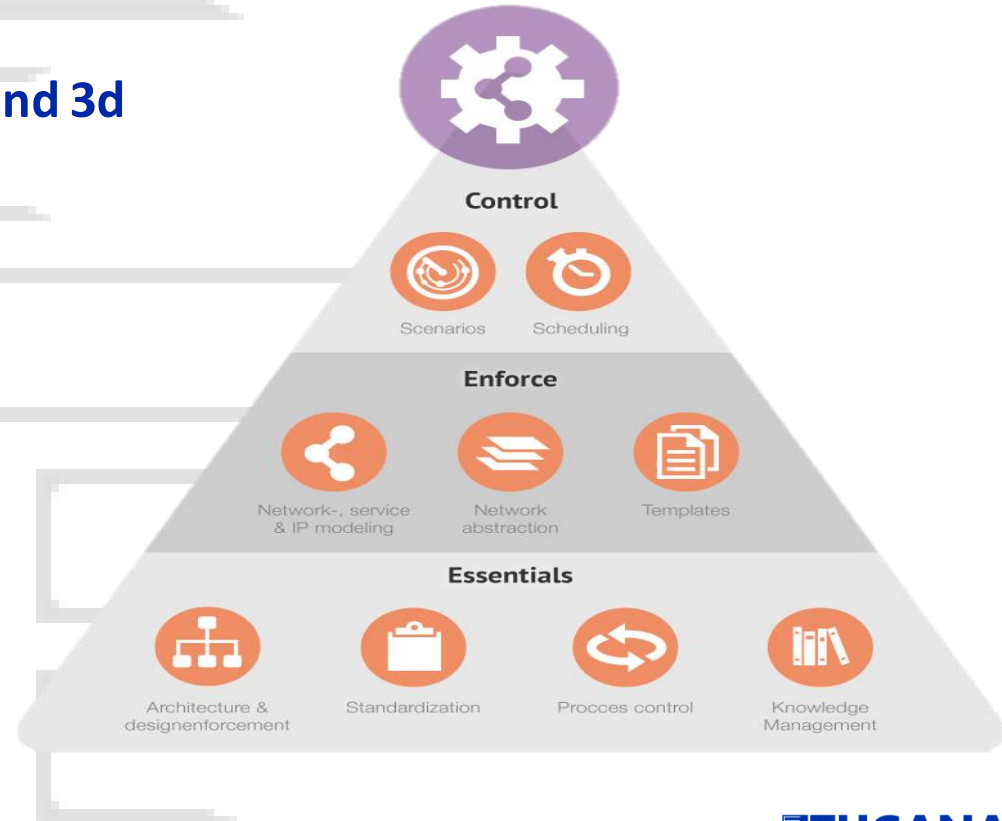
Design Driven Networking

- Design driven NetWork automatisaton and orchestration
- Full Lifecycle & Change Management
- Multi Vendor
- Multi technology (& domains), Traditional, virtual, SDN



Design Driven Networking

- Integration with OSS/BSS Systems and 3d party applications
- Integration with fault management systems
- ITL/TQM Process enforcement



Today's way of Networking

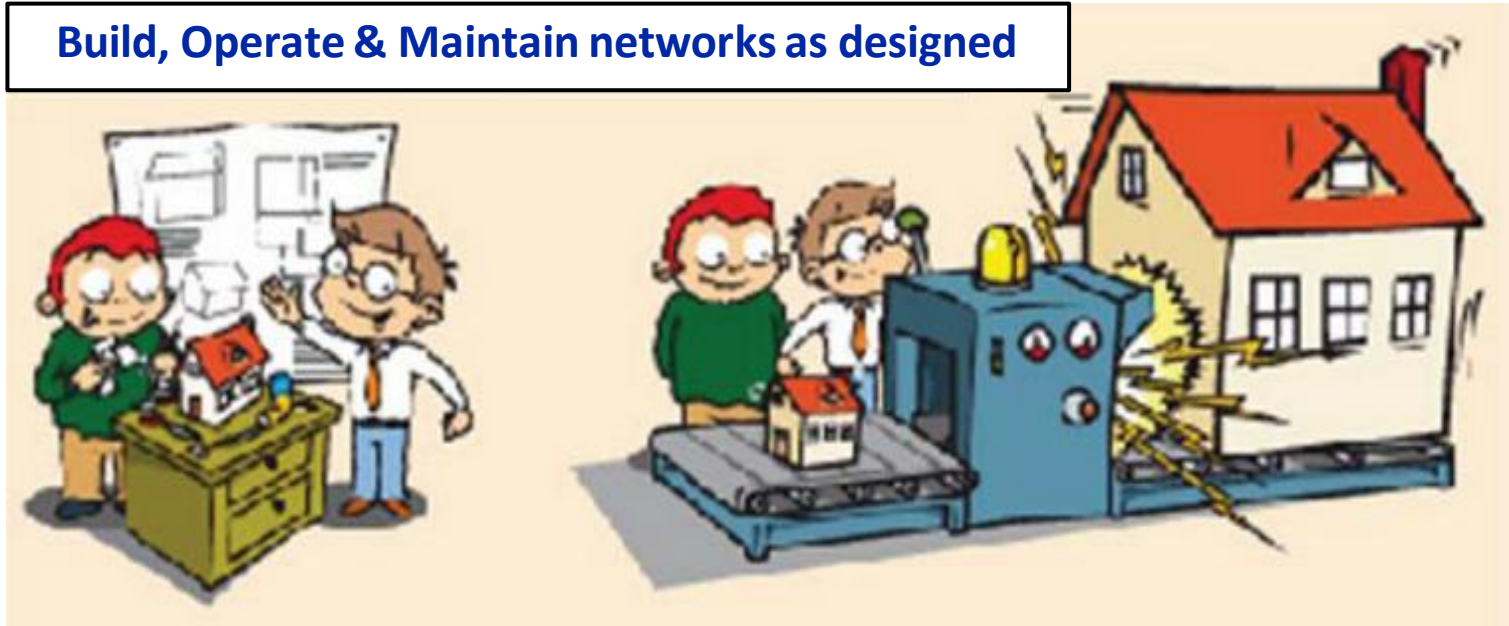
Manual processes



“as deployed” is **not** “as designed”

Design Driven Networking

Build, Operate & Maintain networks as designed



“As deployed” = “as designed”

Networking specific..

90%

of network problems can be traced to configuration errors

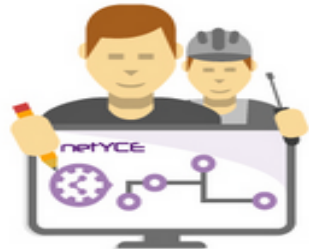
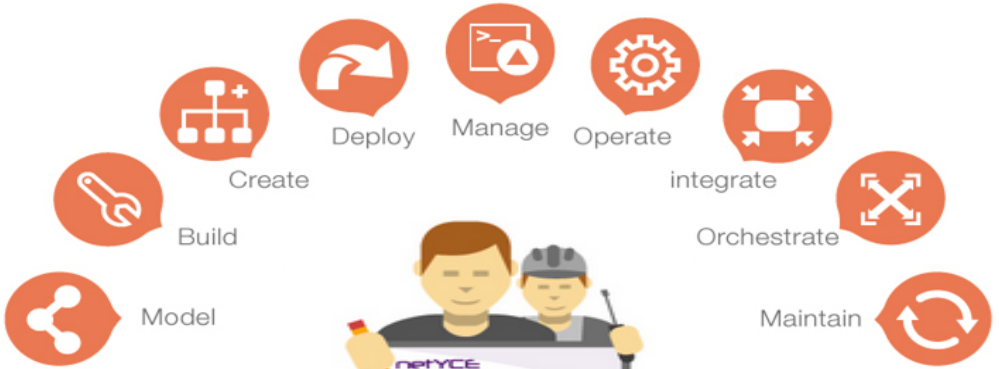
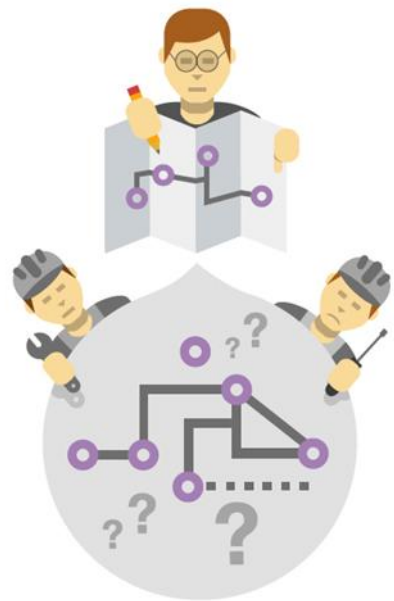
Manual !

80%

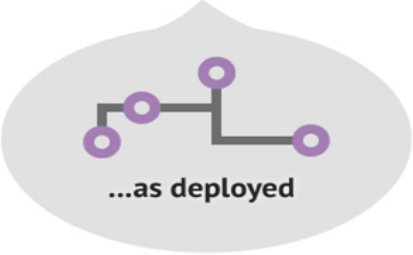
of these configuration changes are still done manually

New approach of network design, building and operation

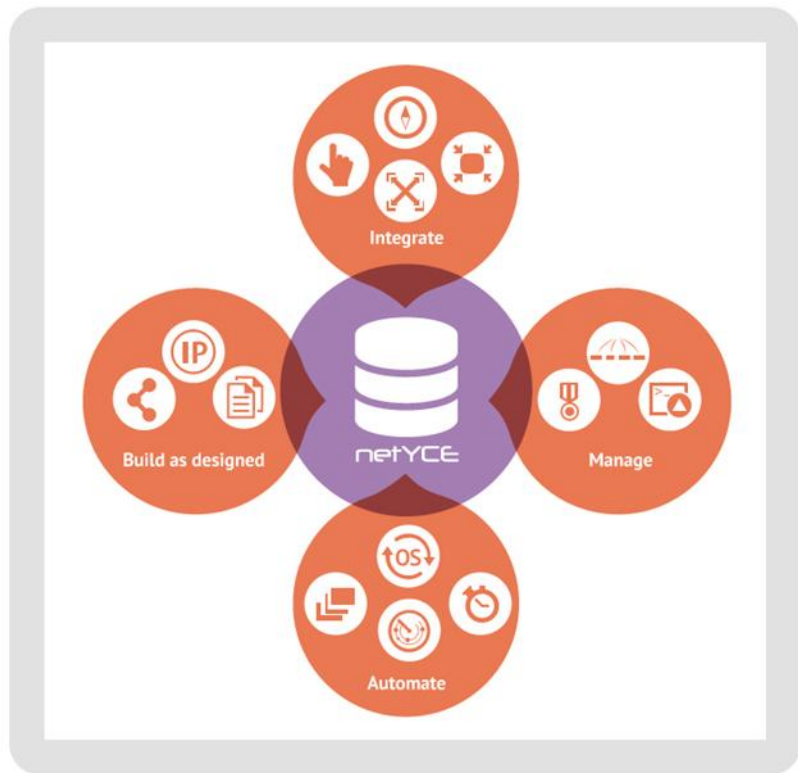
Instead of manual...



As designed...



Core platform components



Build as designed:

- Network- and service modeling
- IP management
- Smart templates

Manage:

- Configuration management
- Service management
- Compliance management

Automate:

- Scenarios
- Scheduler
- Vendor modules
- OS upgrades

Core platform components



Integrate:

- Northbound interface
- Integrations
- Orchestration

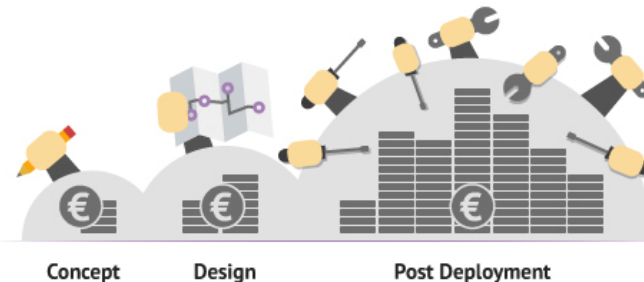
Support functions

- Job control, logging, reporting, monitoring, etc.

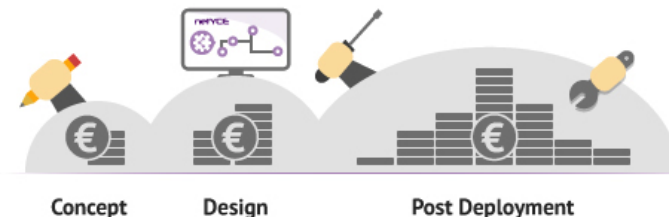
The advantages of Design Driven Networking:

- Design driven changes
- Standardisation of networks
- First roll out => less mistakes
- No unauthorised changes
- Quality and Stability => less downtime
- Flexible and accurate change management

Instead of manual



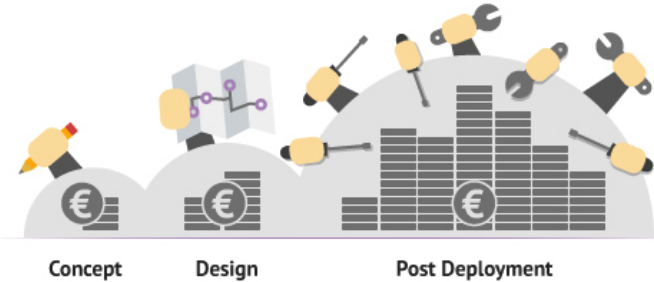
We vote design



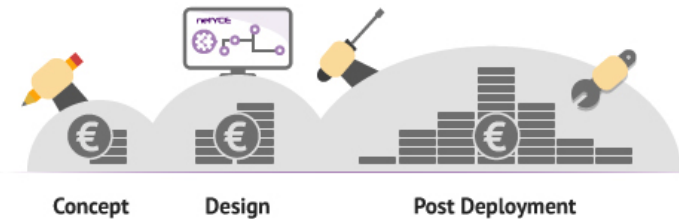
The advantages of Design Driven Networking:

- Improve efficiency (less skilled people needed)
- Compliance & control
- Self service capabilities
- Automation!

Instead of manual



We vote design

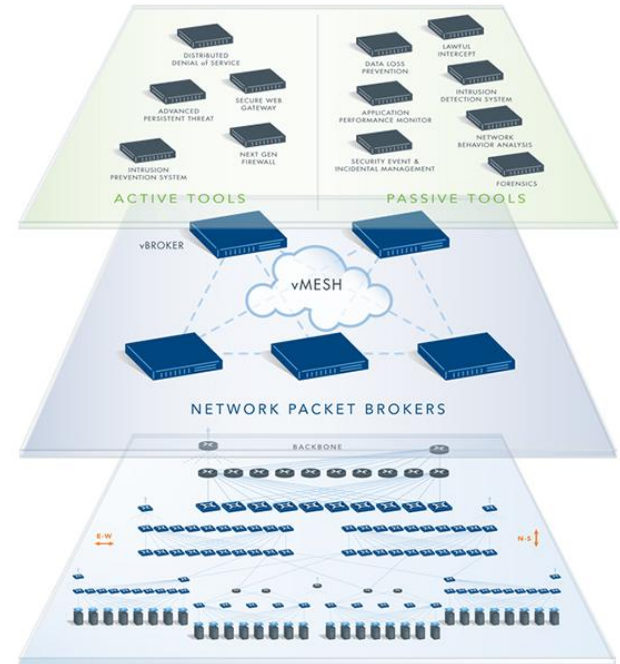
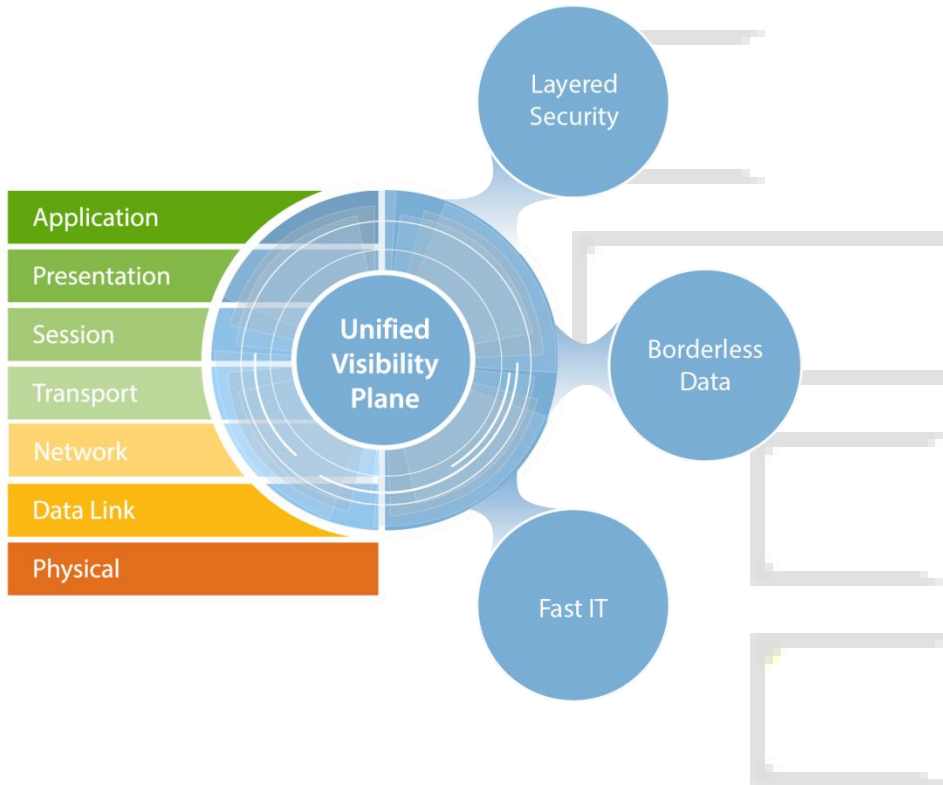


Resulting in significant TCO decrease
(average 30-50%!)



The Unified Visibility Plane

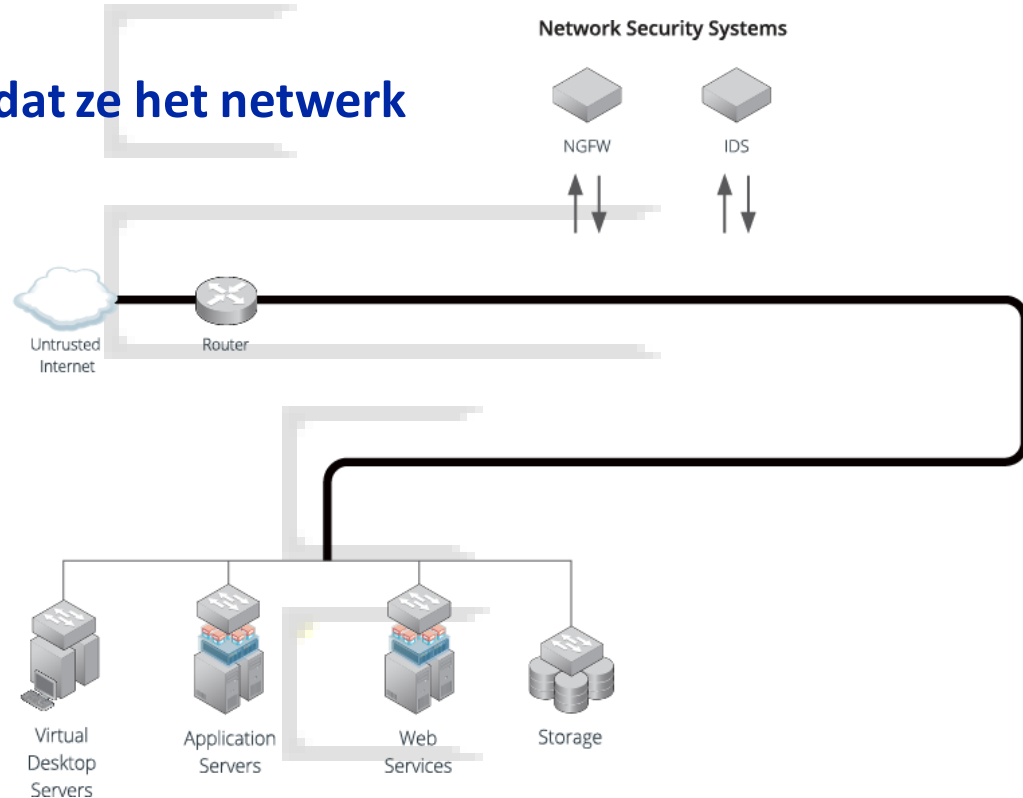
De basis voor optimale security & monitoring



De evolutie van network security / monitoring

Stage I: De (buiten)rand

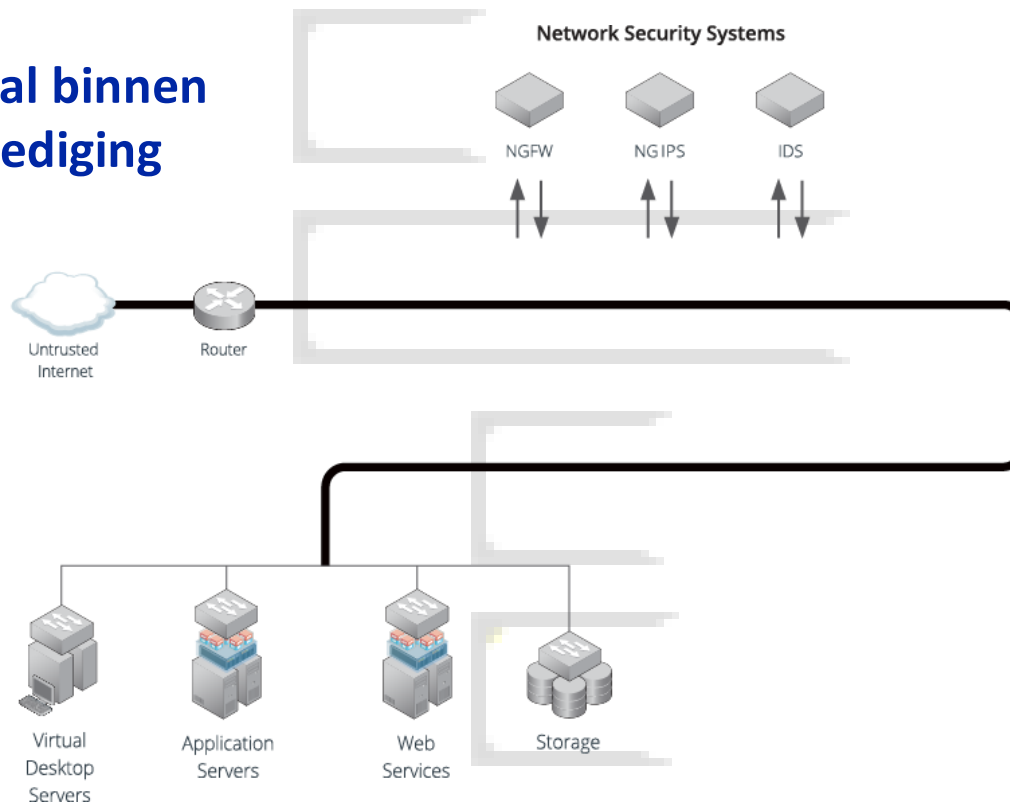
- Stop bedreigingen voordat ze het netwerk op komen
- Passieve Security aan de binnenkant



De evolutie van network security / monitoring

Stage II: Verdediging in de diepte

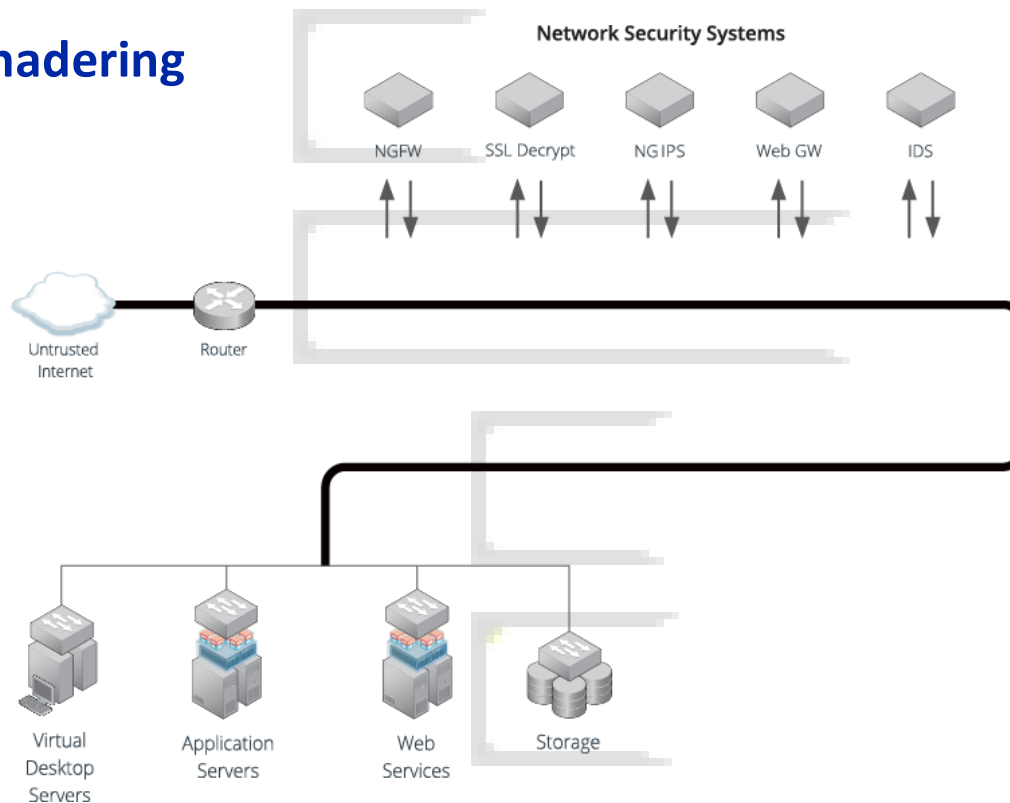
- Aanvallers zijn al binnen
- Meerdere verdediging vectoren



De evolutie van network security / monitoring

Stage III: Layered Security

- Plug & Play benadering
- Mix van tools



De evolutie van network security / monitoring



De evolutie van network security / monitoring

Samenvoegen van meerdere input lijnen



Kans op 'packetloss' wanneer je lijnen samenvoegt.

Wat te doen, wanneer je de lijn (bandbreedte) upgrade?
(1Gb => 10Gb / 10Gb => 100Gb)



Onnodige (vroeg) vervanging security / monitoring tools, door incompatibele interfaces?

Geen mogelijkheden om een kopie van het data verkeer op te slaan, voor bijvoorbeeld voor forensische doeleinden



Geen volledige zichtbaarheid, (packetloss), of enkel op te slaan op dure opslagruimte van de tool fabrikant

Schaalbaarheid van de tools?

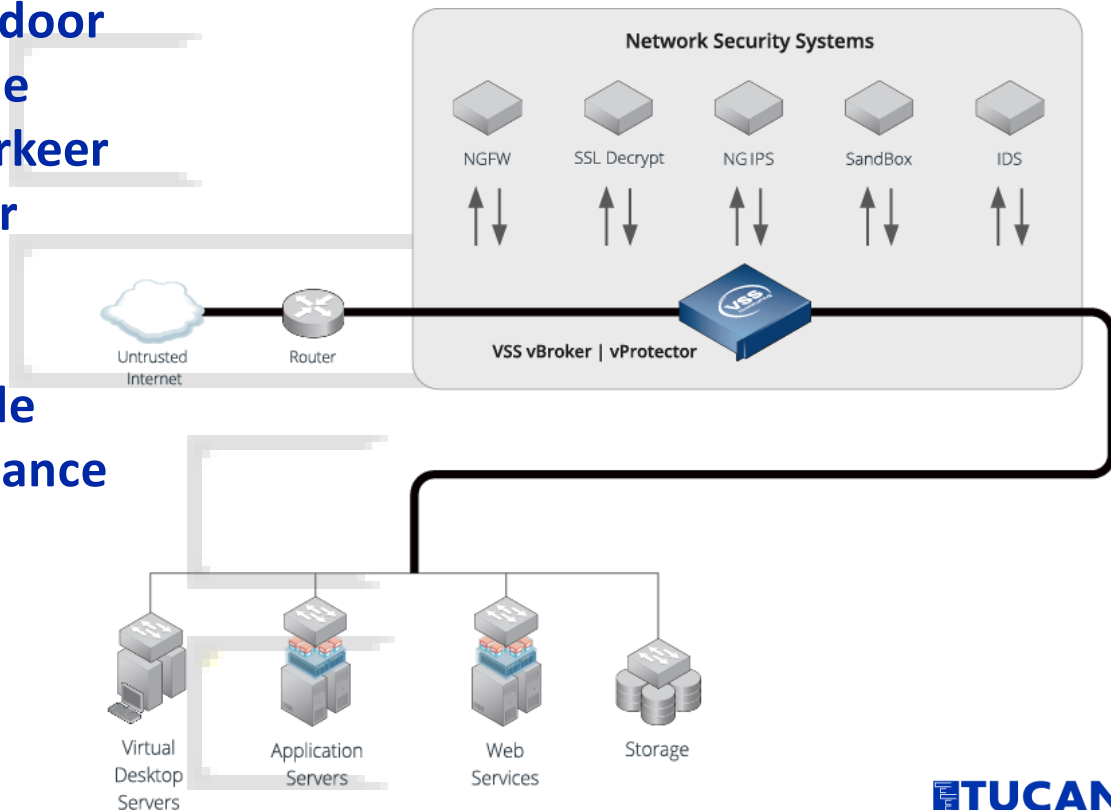


Vervanging door grotere (duurdere) tools

De evolutie van network security / monitoring

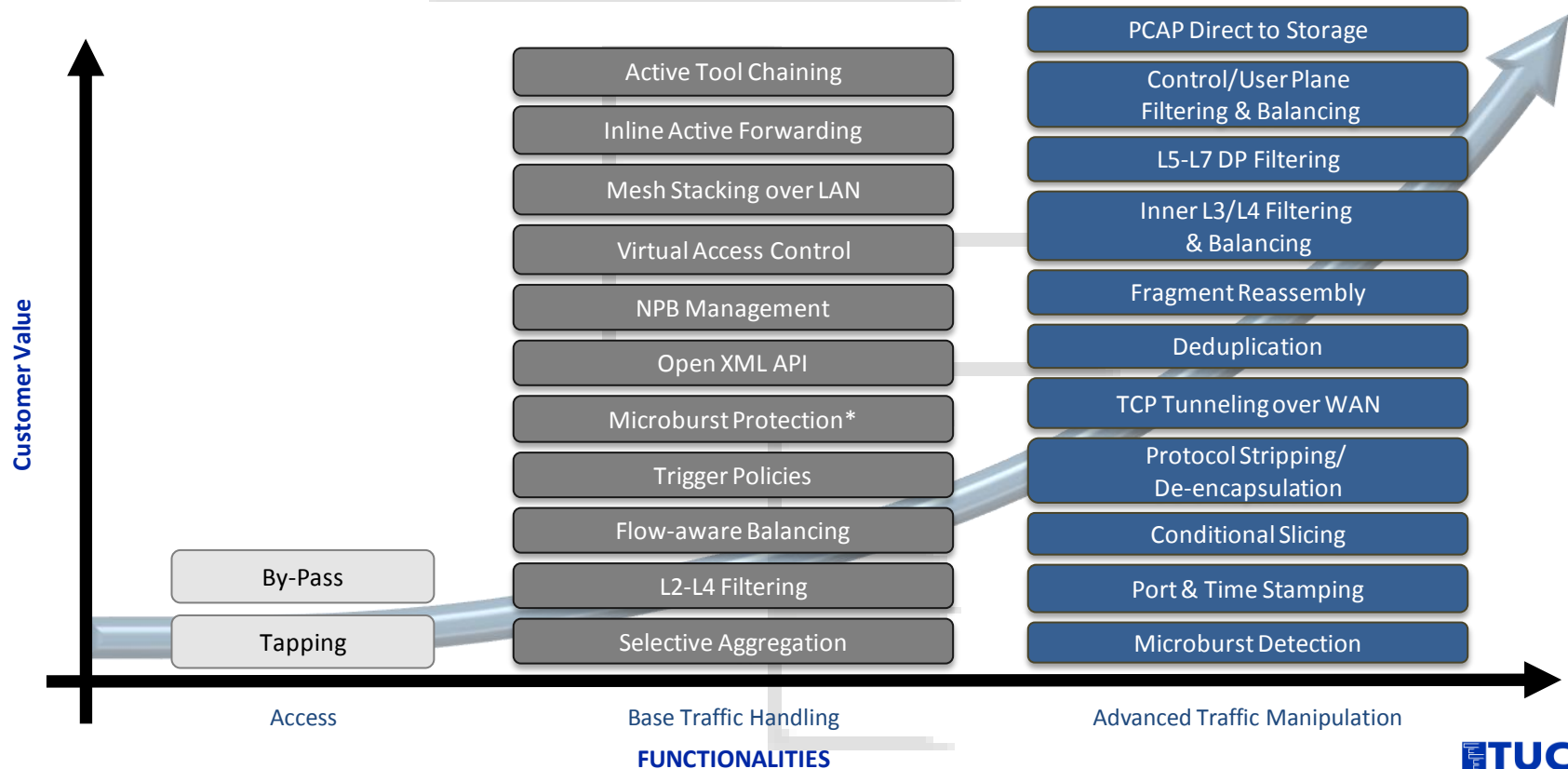
VSS Layered Security Solution

- Voorkomen van silo vorming, door het bieden van ongeëvenaarde zichtbaarheid van het data verkeer naar de security infrastructuur
- Maakt security systems tool chaining mogelijk, waardoor de gehele infrastructuur performance verbetert.



De evolutie van network security / monitoring

Hoge Performance, Uitgebreide, Kosten-effectieve NPB Functies

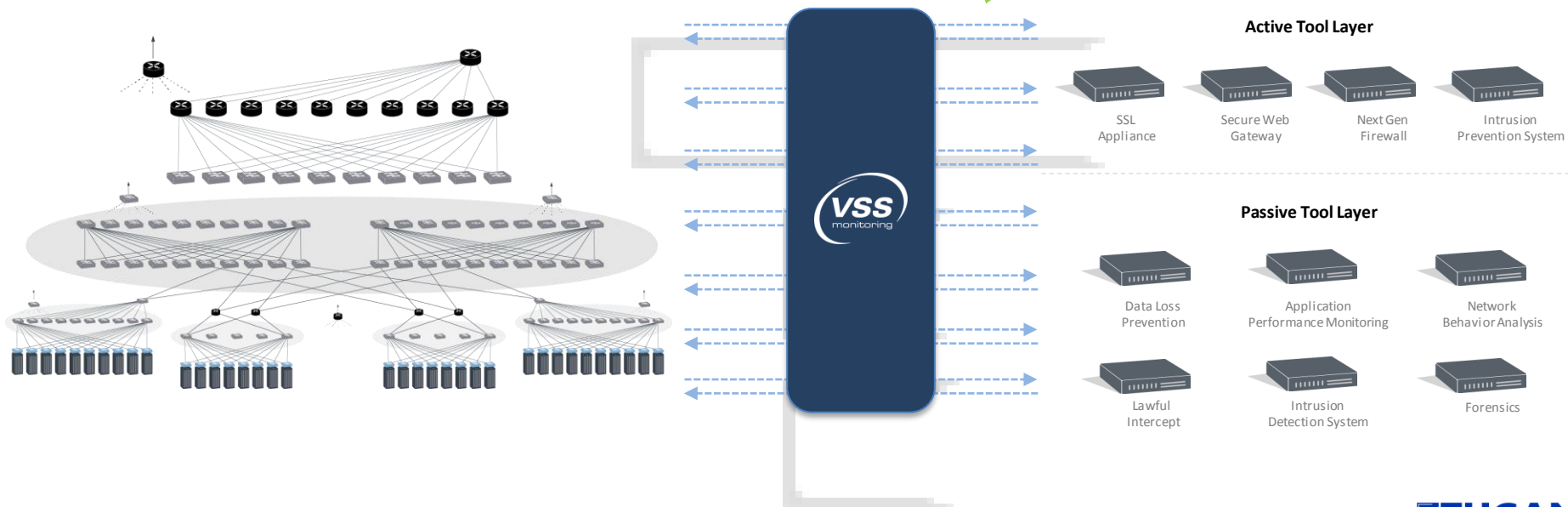


De evolutie van network security / monitoring

The Network Visibility Gap: Eliminated

Network
Rapid growth
Rapid change

Monitoring Systems
Increasing variety
Increasing specialization





Masters in Measurement

Bedankt voor uw aandacht

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