



# NORDIC NAGIOS MEET 08

For users and developers

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# Enterprise Requirements on Network Monitoring

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# Topics

- Nagios today – how it works
- The roles in enterprise monitoring
- Plugins – what's so great about them anyway?
- The eventbroker interface – how hard can it be?
- Demand-loadable code – why's and possibilities
- Existing NEB-modules
- Where we go from here

# Nagios today – how it works

- Basically cron
- Fancy config syntax
- Conditional statements
- Needs other programs to work
- Can be fed data through a FIFO

# Plugins

- The eyes and ears of Nagios
- Run frequently
- Separate processes
- Short-lived
- Small and simple
- Communicates via return codes

# The roles

- The PHB
- The IT support team
- The IT operations team

# The PHB

- Likes:
- Things That Just Work(tm)
- Reports & Graphs
- Things that keep his tech staff happy
- 
- Dislikes:
- Having to think about technical things
- Spending money

# The IT support

- Likes:
- Knowing what to say
- 
- Dislikes:
- Phones

# IT operations team

- Likes:
- Notifications
- Failure prediction
- 
- Dislikes:
- Phonecalls from IT support
- Phonecalls from PHB

# The requirements

- Stability – no effort must be spent on maintenance
- Extendibility – no \$500.000 developer fees, thank you
- Usability – no \$100.000 consultant fees either, thank you
- Scalability – no need to swap when doubling the network size

# Meeting the demands

- Nagios is provably stable
- Plugins make it extendable
- Usability is acceptable
- Scalability is poor

# The event-broker interface

- Host/service checks
- Notifications
- Downtime start/stop
- Flapping start/stop
- Comments added/deleted/modified
- Timed triggers

# Demand-loadable code

- Endless possibilities (almost)
- Runs in the same process
- Harder to write than plugins
- Loaded optionally

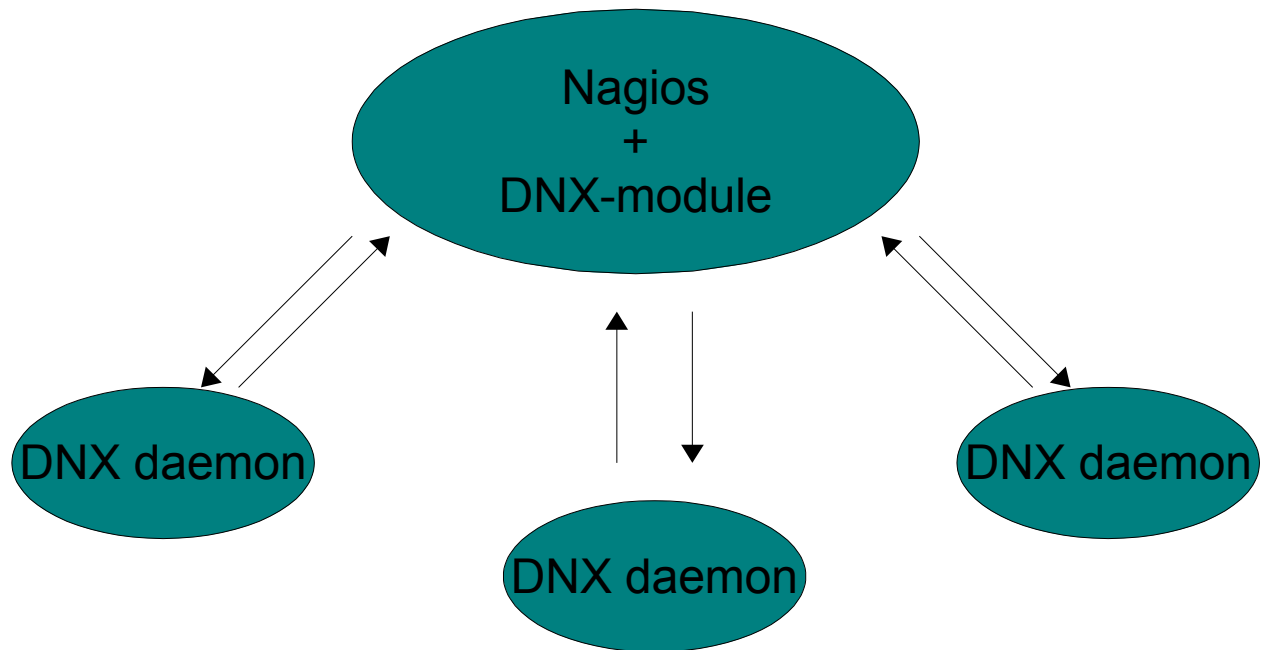
# Existing NEB-modules

- DNX – Distributed Nagios Executor
- NDO – Nagios Data Output
- reports-module
- MRM – Monitor Redundancy Module

# DNX

- Works with a command queue
- Must have a single master-server
- Can use up to 16380 poller slaves
- Checks are created on master but may be run on any slave
- Single GUI- and notification server
- Loadbalanced
- One place to configure

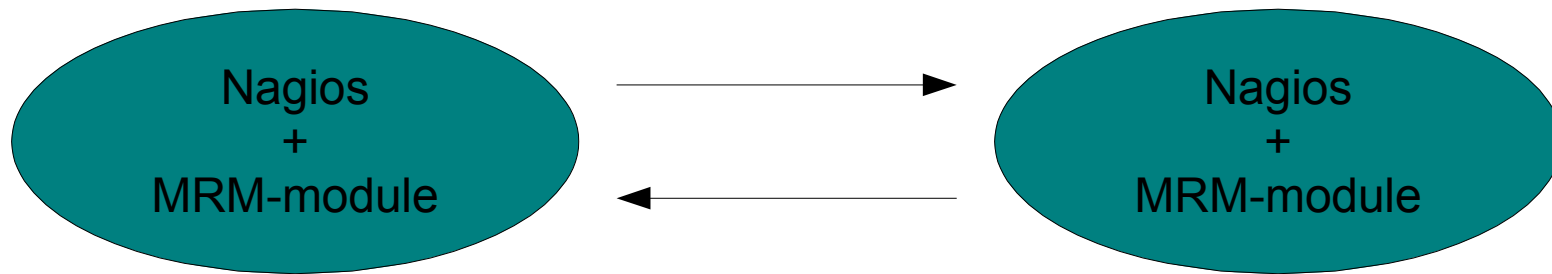
# DNX design



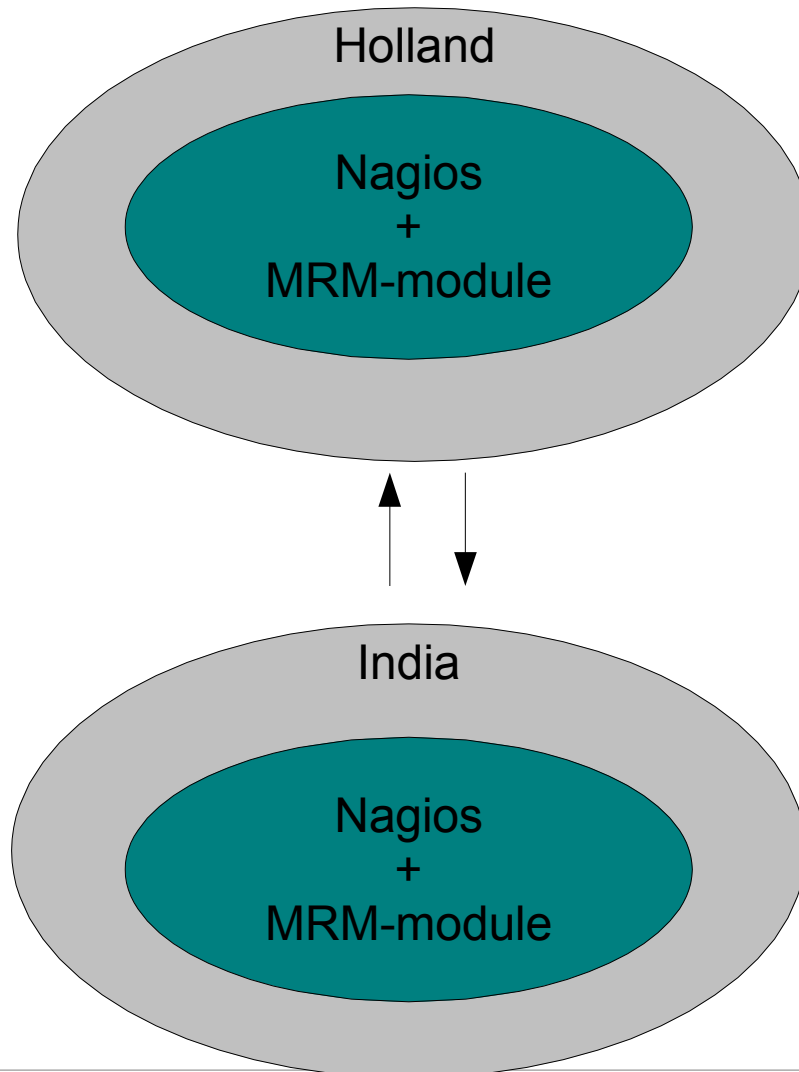
# “MRM”

- One Nagios installation on every poller
- Loadbalanced
- Multi-tier failover
- Redundancy in every step
- Automatic config synchronization
- Multiple possible GUI- and notification servers

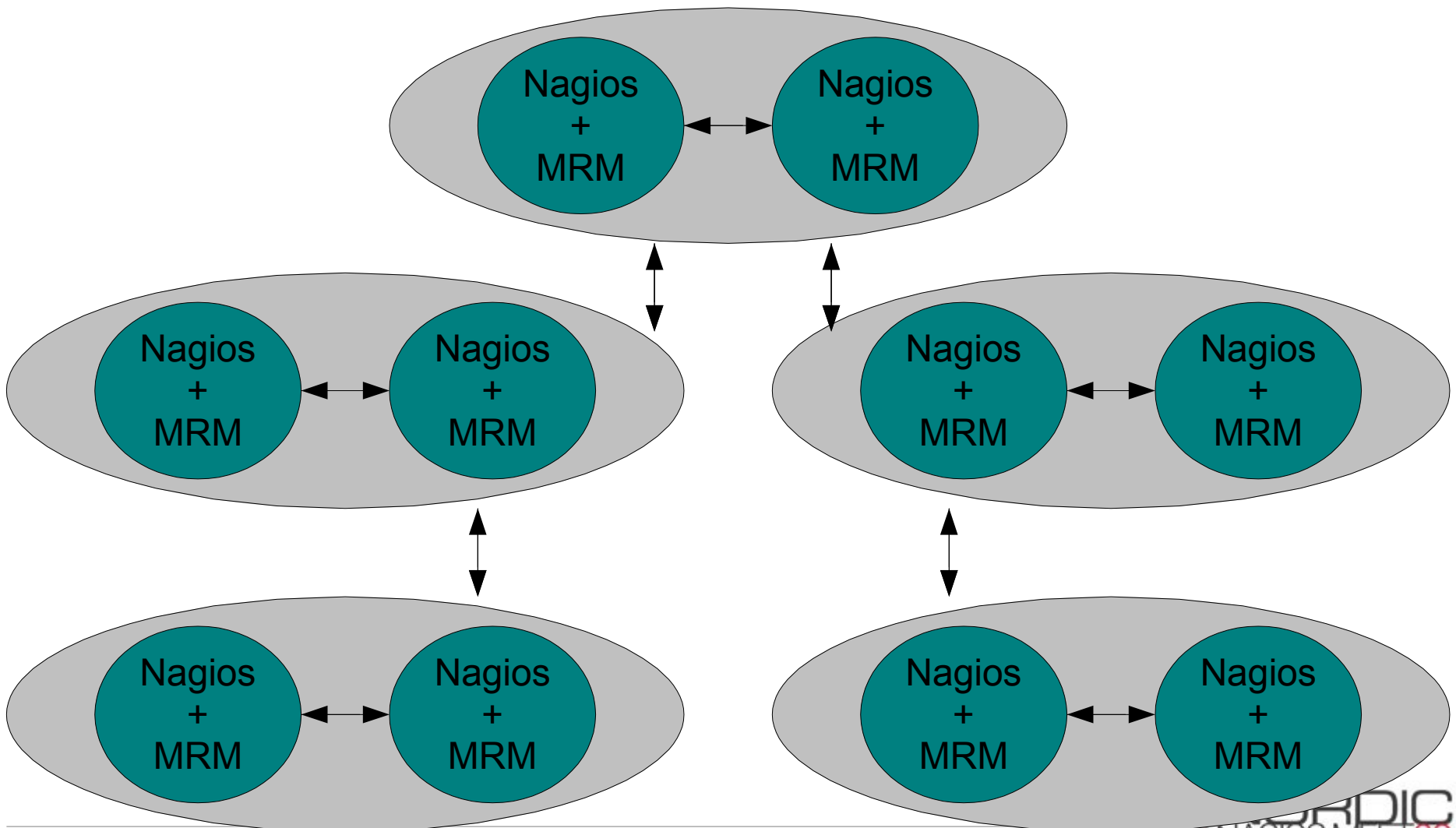
# MRM design



# MRM design, v2



# MRM design, v3



# So what's next?

- Nagios remains stable
- Plugin design won't change (much)
- New GUI's are brewing
- NEB-modules for scalability



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