Passive Monitoring Solutions
For
Remote Networks

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Topics

- Difficulties with Remote Networks

- Firewall Challenges

- Types of Monitoring Active vs. Passive

- Possible Solutions

    - Nagios Remote Data Sender (NRDS)

    - Nagios Reflector

- Q & A / Discussion
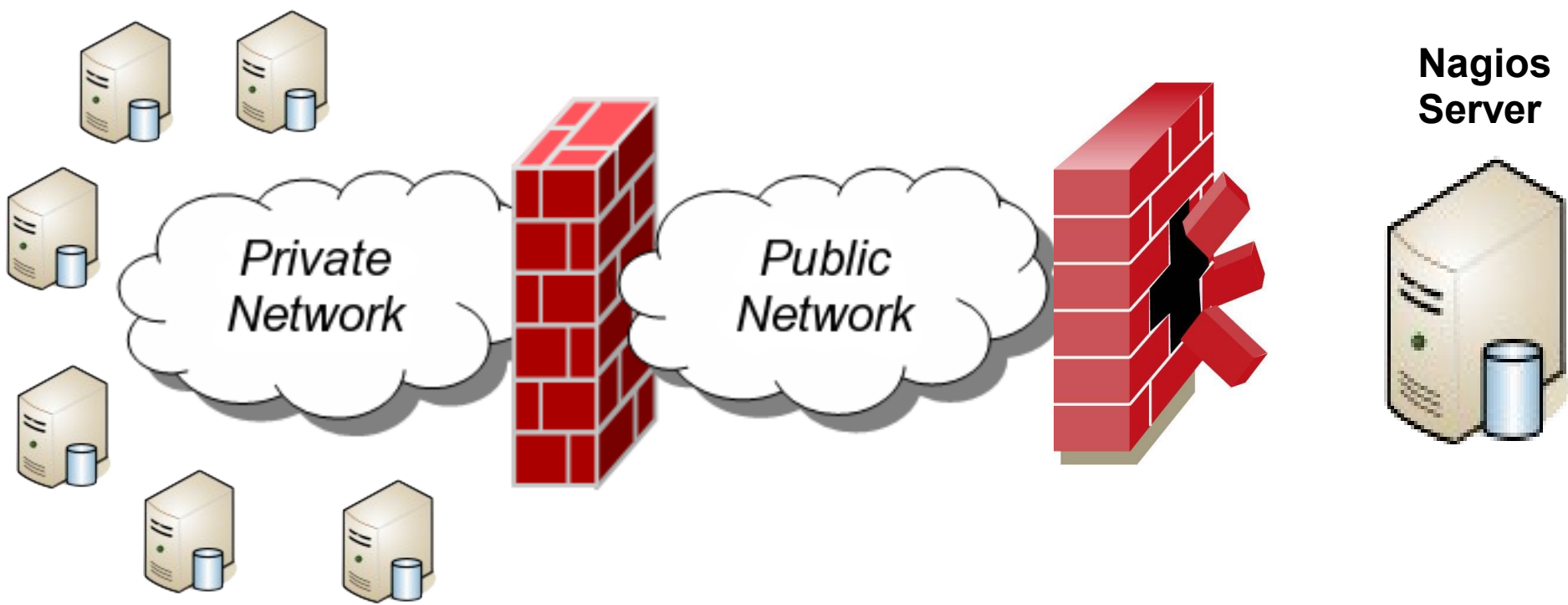
Difficulties with Remote Networks

- **Active Checks**
    - **Need Access through Firewall**
        - Port forwarding
        - Multiple levels of NAT/firewall to go through
        - What port goes to which system?
        - What about Laptops with Dynamic IP?
- **Passive Checks**
    - Every monitoring change requires updating config and plugin on each machine monitored
    - Nagios server need to be reachable from remote system

Pitfalls with Remote Networks

Nagios Server

What the heck is NRDS?

- **N**agios
- **R**emote
- **D**ata
- **S**ender

Key Benefits of NRDS

- **Central Configuration**
  - Deploy once
  - Automatic updates
- **Plugin Deployment**
  - All plugins on one server
- **Shared Configurations**
  - Change config, deploy to all
  - Including needed plugins!
- **Multiple Platforms and Architecture**

How do(es) NRDS work?

What Makes NRDS tick?
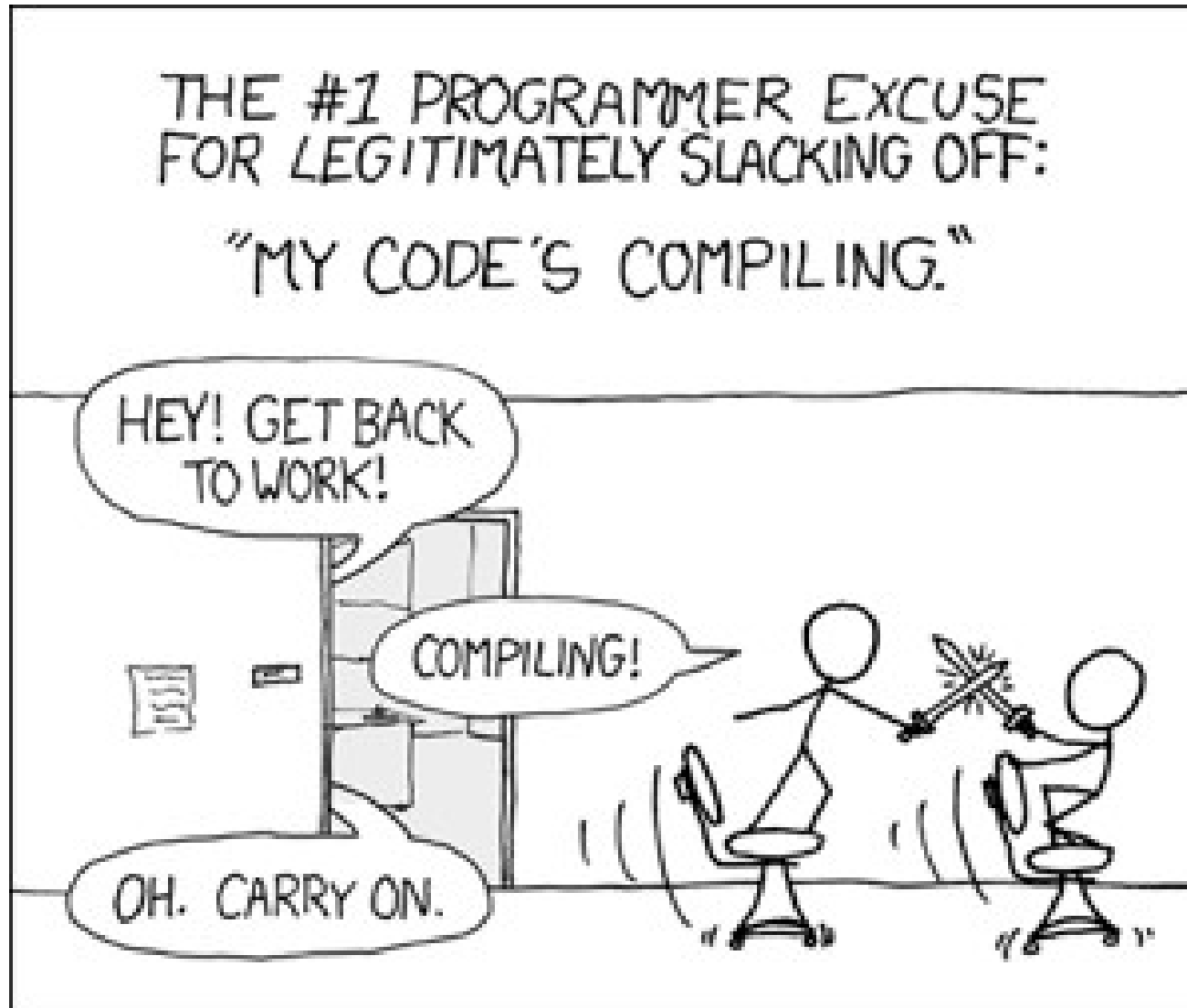
NRDS
Nagios Remote Data Sender
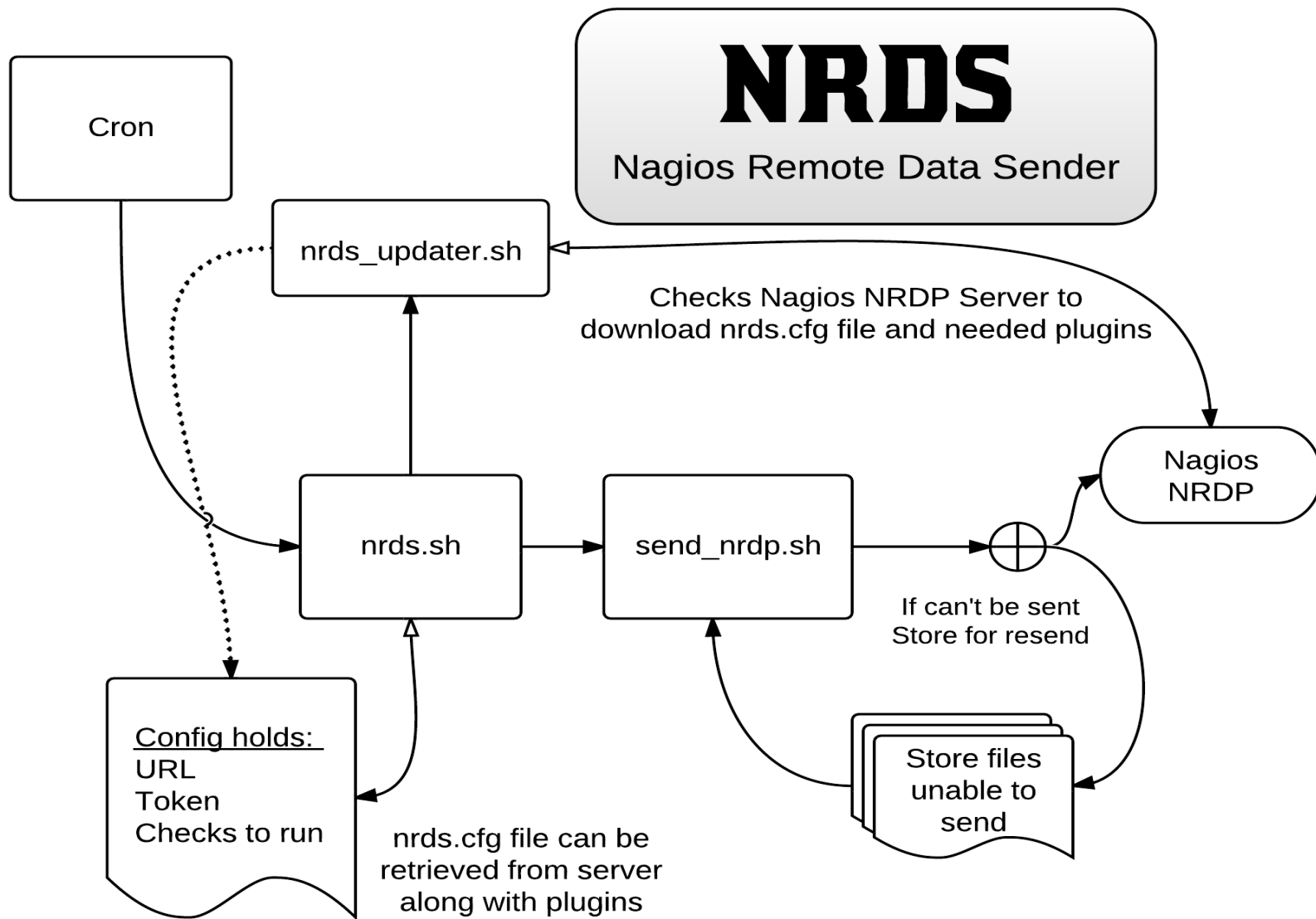
- Primarily Nagios XI
  - NRDP (NRDS adds on to NRDP)
  - NRDS Config Manager Component
  - Plugin Cache in /usr/local/nrdp/plugins
  - Easy Addition Using XI's Unconfigured Objects
- Could be used with Core
  - Still need NRDP
  - Need to modify configs manually
- Client-side
  - Cron/Scheduled Tasks
  - *nix/Mac OS/X version use bash & curl/wget

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NRDS

Nagios Remote Data Sender

Cron

nrds_updater.sh

Checks Nagios NRDP Server to
download nrds.cfg file and needed plugins

nrds.sh

send_nrdp.sh

Nagios NRDP

If can't be sent
Store for resend

Config holds:
URL
Token
Checks to run

nrds.cfg file can be
retrieved from server
along with plugins

Store files
unable to
send

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Pros & Cons of Passive Checks

NRDS
Nagios Remote Data Sender

- **Advantages**
  - No Need to Open Firewalls to Clients
  - Reduce Nagios Server Load
  - Central Config Management
  - Central Plugin Management
  - Easy setup, no compiling on every server
- **Disadvantages**
  - Nagios doesn't control when checks happen
  - Some plugins have pre-reqs
  - Nagios server needs to be accessible from remote system

Pros & Cons of Passive Checks

NRDS Links

NRDS
Nagios Remote Data Sender

- Pre-installed in Nagios XI 2012

- Component Download

- Passive Monitoring with NRDS Documentation

- Tutorial

Nagios
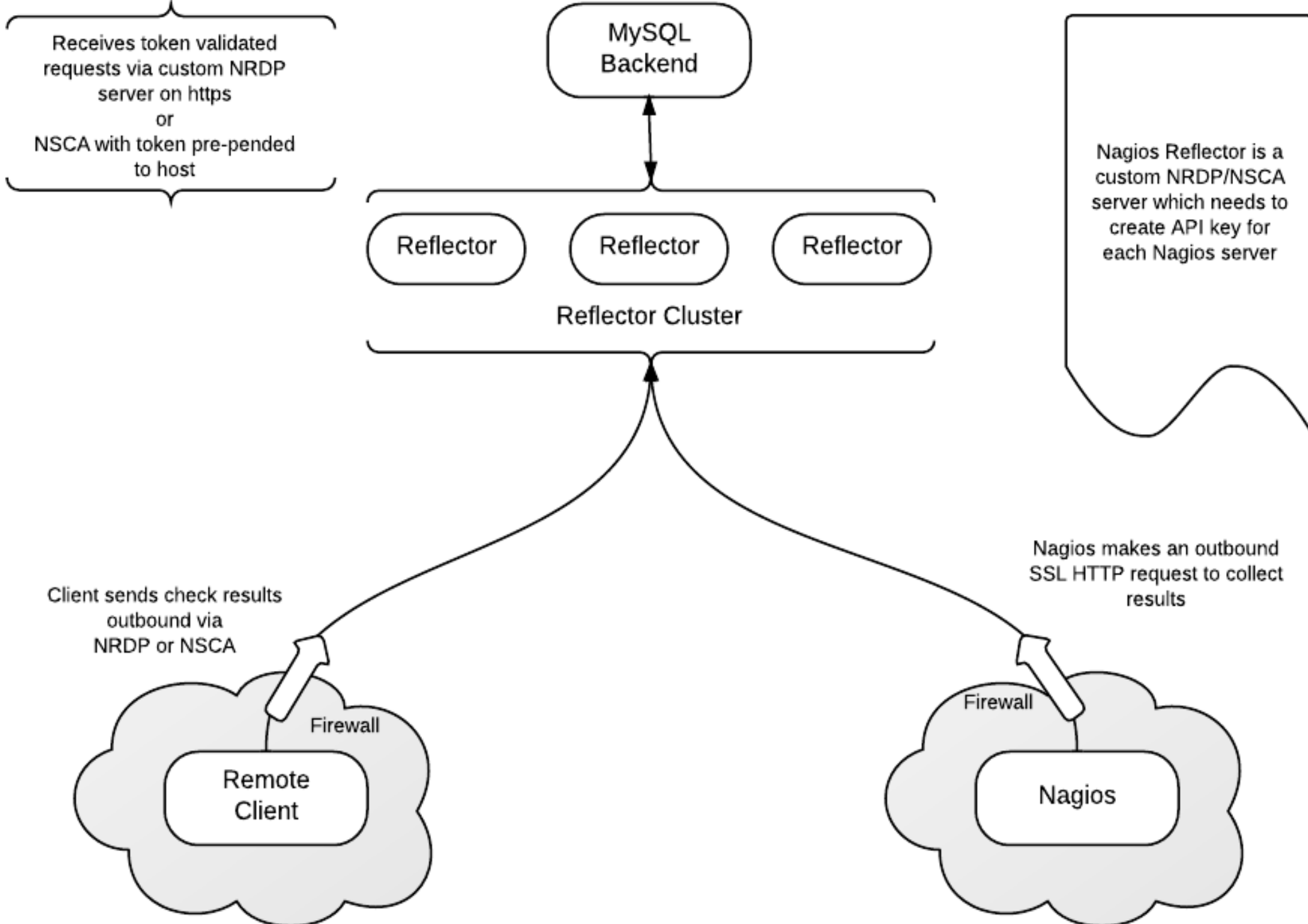World Conference
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Using the New
Nagios Reflector
to Monitor
Remote Machines

What is the Nagios Reflector?

- ▶ Just Released

- ▶ Nagios Enterprise Hosted Results

  - ▶ Clients send data to Reflector

  - ▶ Nagios server Utilizes new
    check_reflector.py plugin
    to collect results via SSL HTTP

- ▶ Useful for Core and Nagios XI

  - ▶ Can accept NRDP or NSCA data

  - ▶ Zero Firewall setup, all connections outbound

- ▶ **Conference attendees are the first people allowed access to Nagios Reflector**

Receives token validated requests via custom NRDP server on https or NSCA with token pre-pended to host

MySQL Backend

Reflector · Reflector · Reflector

Reflector Cluster

Nagios Reflector is a custom NRDP/NSCA server which needs to create API key for each Nagios server

Client sends check results outbound via NRDP or NSCA

Firewall

Remote Client

Nagios makes an outbound SSL HTTP request to collect results

Firewall

Nagios

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Pros & Cons of Nagios Reflector

▶ **Advantages**

   ▶ No Need to Open Firewalls (either)

   ▶ Reduce Nagios Server Load

   ▶ Works with dynamic IP assignments

   ▶ Can pull data to multiple Nagios Servers

   ▶ Integration with NRDS (Roadmap)

▶ **Disadvantages**

   ▶ Nagios doesn't control when checks happen

   ▶ Clients & Nagios need Internet Access

   ▶ Some data is sent to remote network

Pros & Cons of Nagios Reflector

Reflector Links

- https://reflector.nagios.com

- Using Nagios Reflector with Nagios XI

- Using Nagios Reflector with Nagios Core

- Nagios XI Reflector Wizard

- Reflector Plugin

Contact Us

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Thank you!

Additional Questions?

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