



# ENUM Push Nameservers

8 September 2008

## Agenda

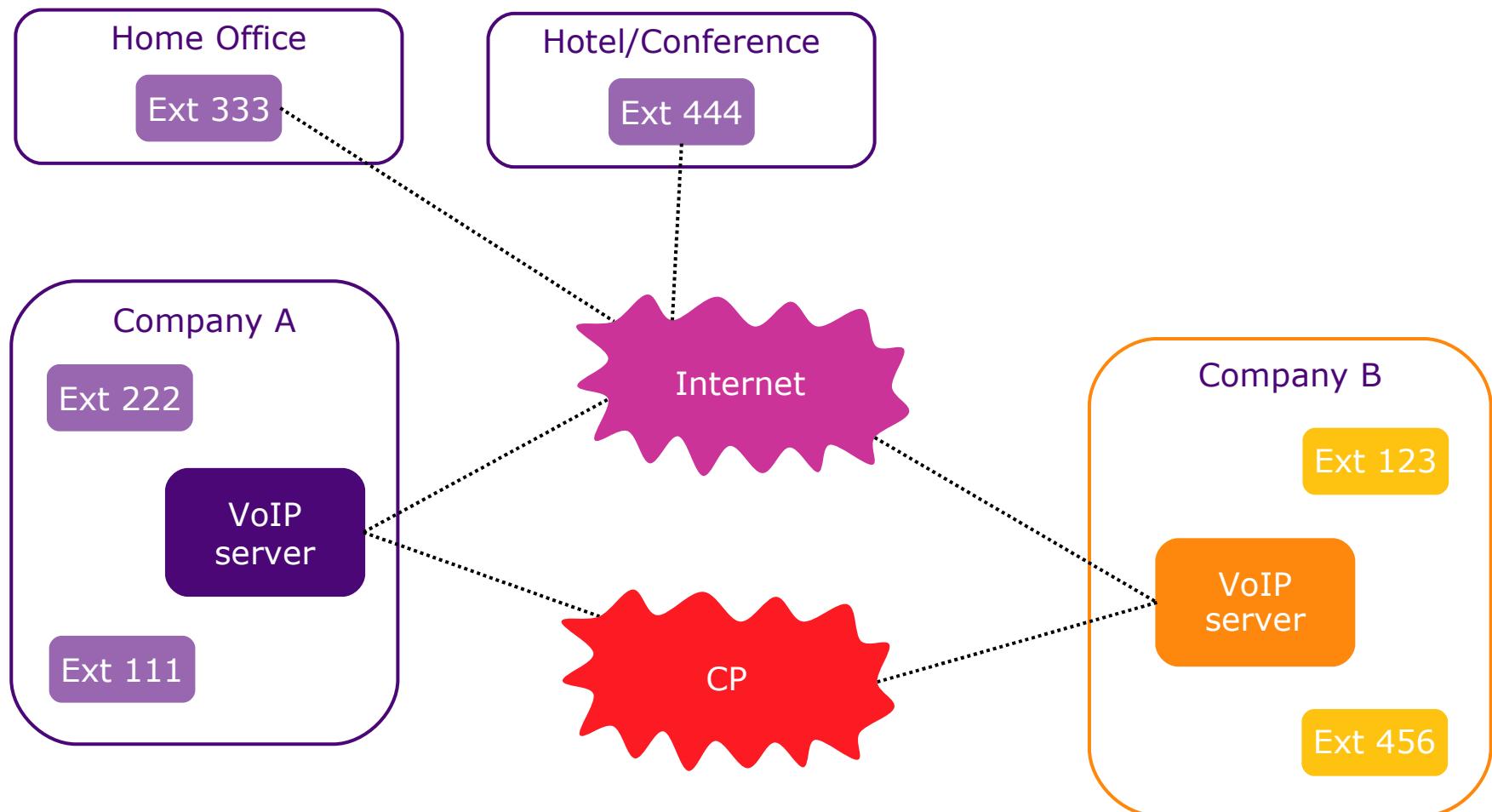
- ENUM
- Nameserver Design
- Customers

# ENUM Push Nameservers

# ENUM

nominet

# End-to-end VoIP



# ENUM Delegation

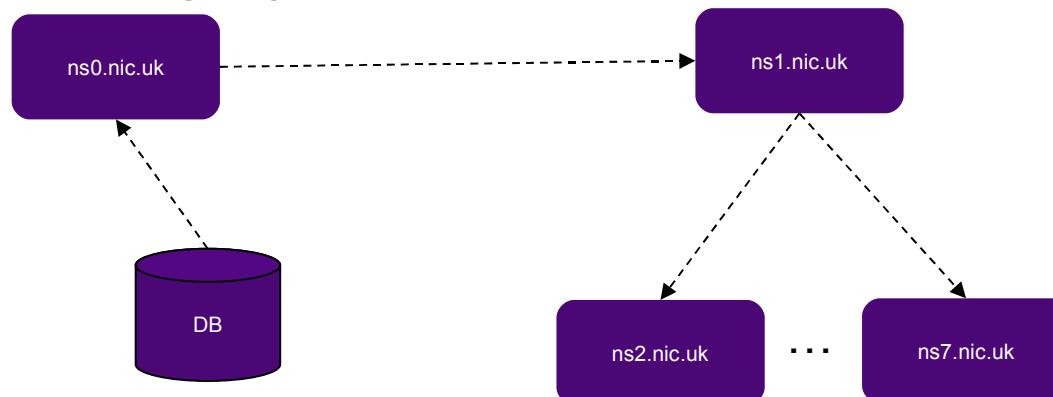
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## DNS for VoIP

- Telephone numbers
  - 01865 332211 ⇒ 1.1.2.2.3.3.5.6.8.1.4.4.e164.arpa
- Machine-readable RRSets
- Nominet authoritative for 4.4.e164.arpa
- Registrars responsible for NAPTR RRSets

# ENUM Nameservers

- ns[1-7].nic.uk
  - Publicly accessible
  - Third-party hosted
  - Nominet-controlled
- Dynamically updated



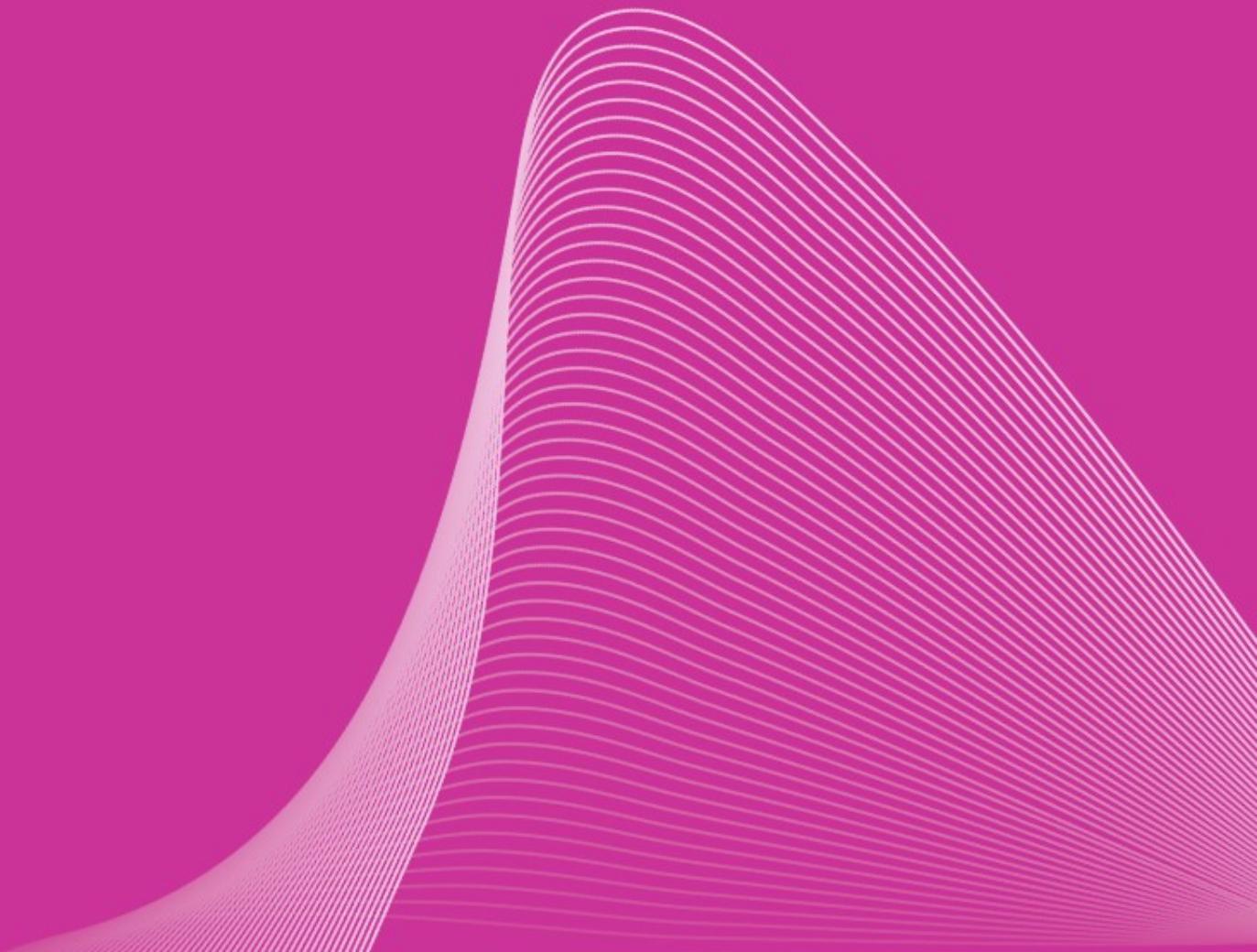
## Push nameservers

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- Private
  - Customer networks only
  - Locally anycast
- Faster response
- Guaranteed latency
- Resilience

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Nameserver Design

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# Push NS Hardware

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## Commodity Boxes

- HP DL365
  - 8GB RAM
  - Mirrored disks
  - Redundant PSU
- Centos 5
- BIND 9.5

# Push NS Interfaces

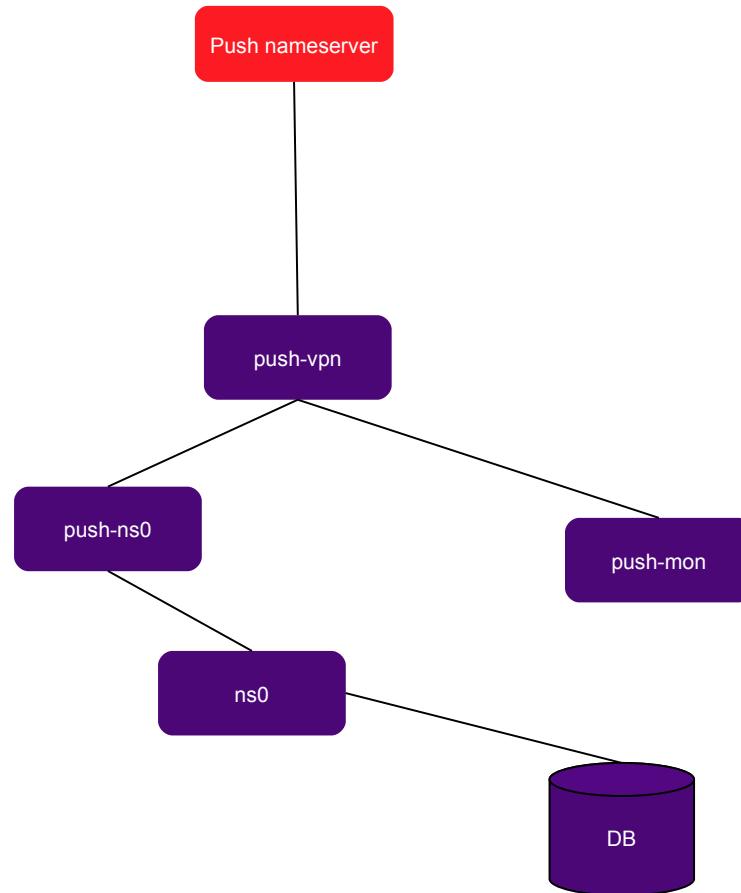
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## Three Interfaces

- Management interface
  - Local configuration
  - Status reporting
  - NS statistics
- Local Anycast
  - Of public NS
  - Advertised via IGP
- VPN interface
  - Remote monitoring
  - Zone file updates

# Push NS connection

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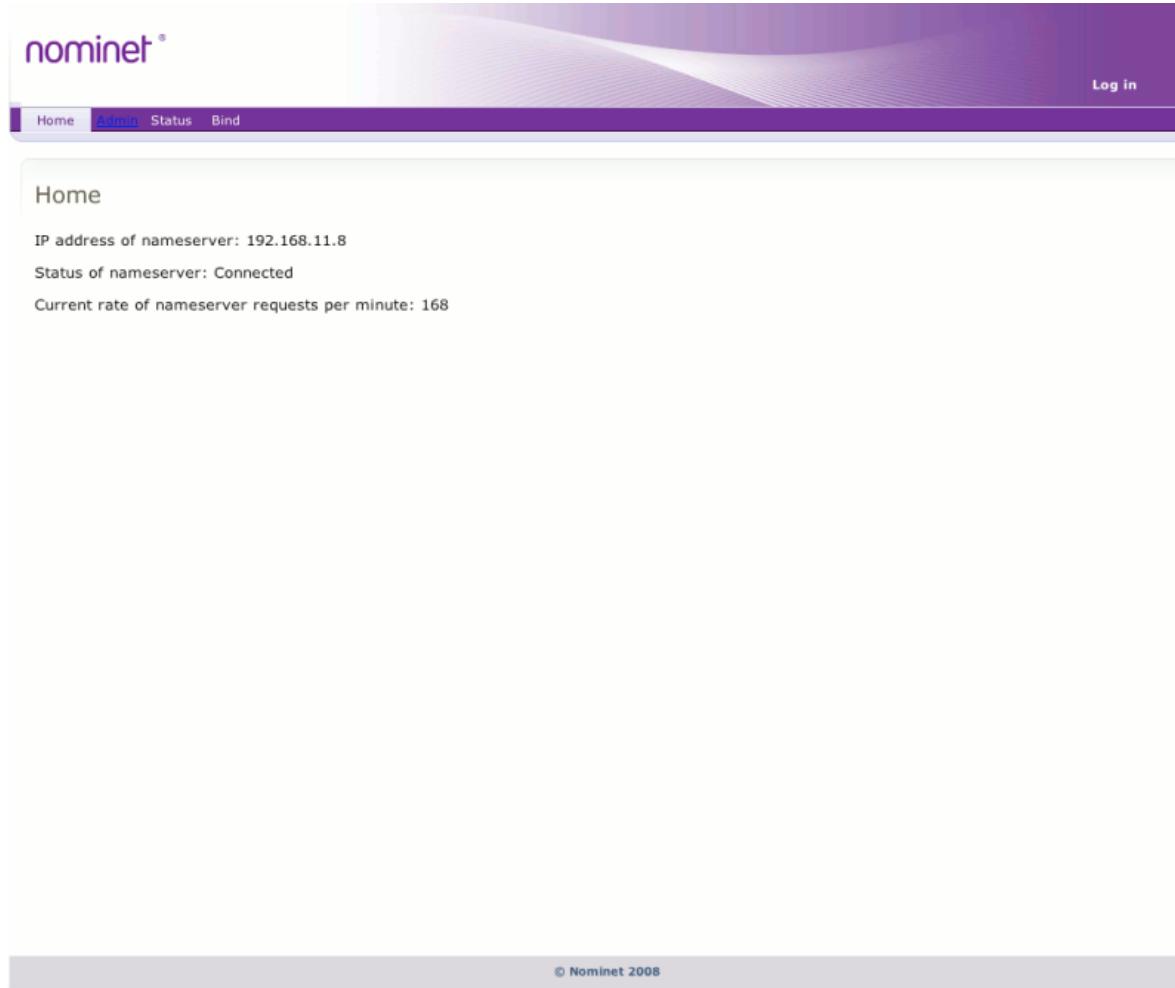
# Customer GUI

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## Local management

- Password protection
- Network configuration
- Status
- BIND statistics

# Customer GUI screenshot

A screenshot of the nominet Customer GUI home page. The page has a purple header bar with the "nominet" logo on the left and a "Log in" button on the right. Below the header is a navigation menu with links for "Home", "Admin" (which is currently selected), "Status", and "Bind". The main content area is titled "Home" and displays three status messages:

IP address of nameserver: 192.168.11.8  
Status of nameserver: Connected  
Current rate of nameserver requests per minute: 168

At the bottom of the page, there is a footer bar with the copyright notice "© Nominet 2008".

# Provisioning system

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## Automated installation & maintenance

- Kickstart
- Puppet
  - Centralised management
  - Now used for all our servers

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## Customer experience



## Who?

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To be decided

- Data protection issues

# Support

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## What you get

- Initial set-up
  - Handholding
- Out-of-hours
- Replace on failure

## How much?

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To be decided

- Cost recovery basis

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## Questions?

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