

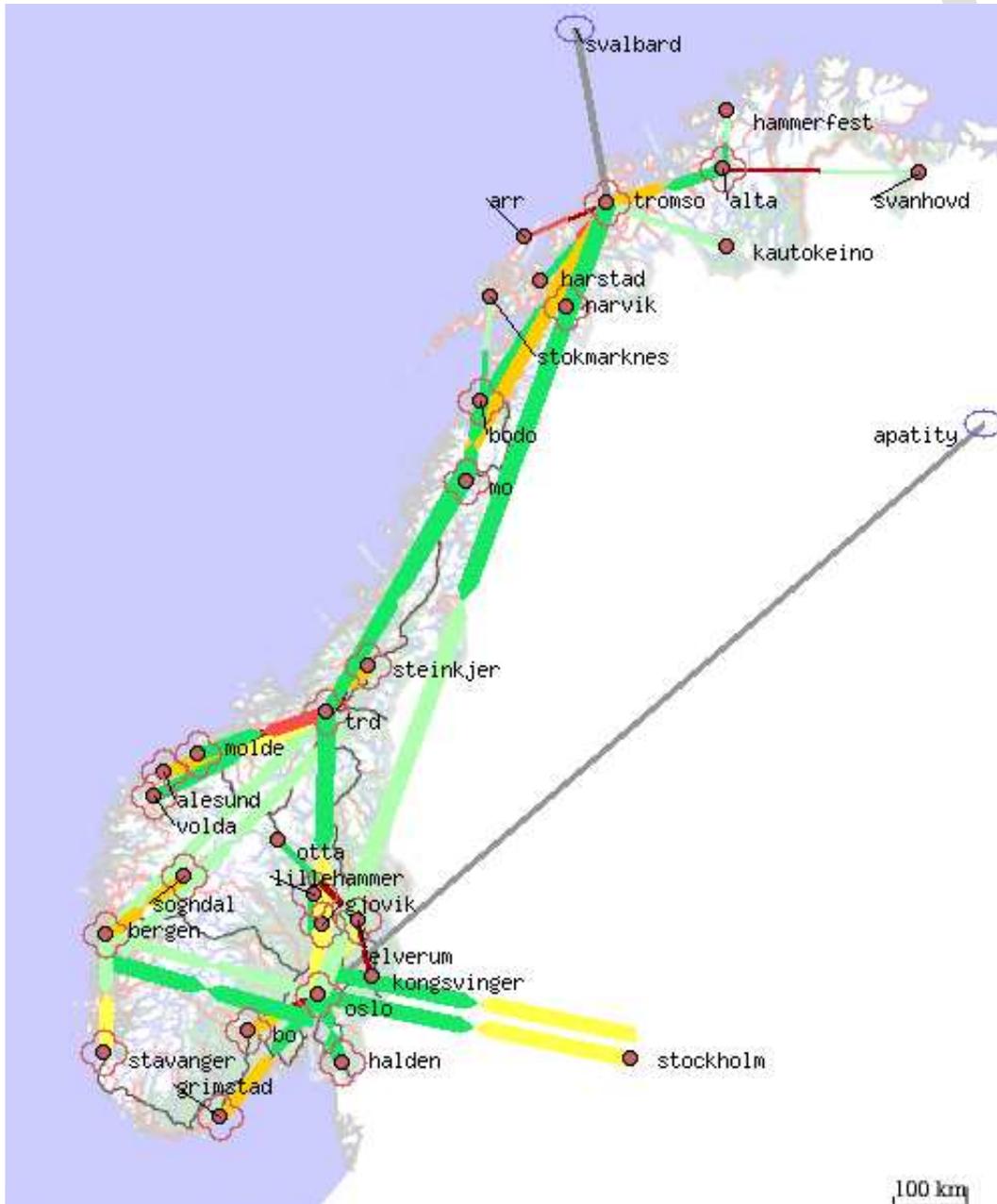
# Network map system

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# The Network Map System -

- has a set of tools that generates clickable WWW-maps from a topology description
- has a set of clients to show maps - geographical or topological
- may use geographical maps from images or vector-maps(SOSI)
- scales by automatically and manually choose zoomed maps
- may attach a series of URL's on menus to each network element
- may show network parameters like link load or CPU load with colors and sizes (weather map)
- depends on consistent naming to attach traffic statistics to the map



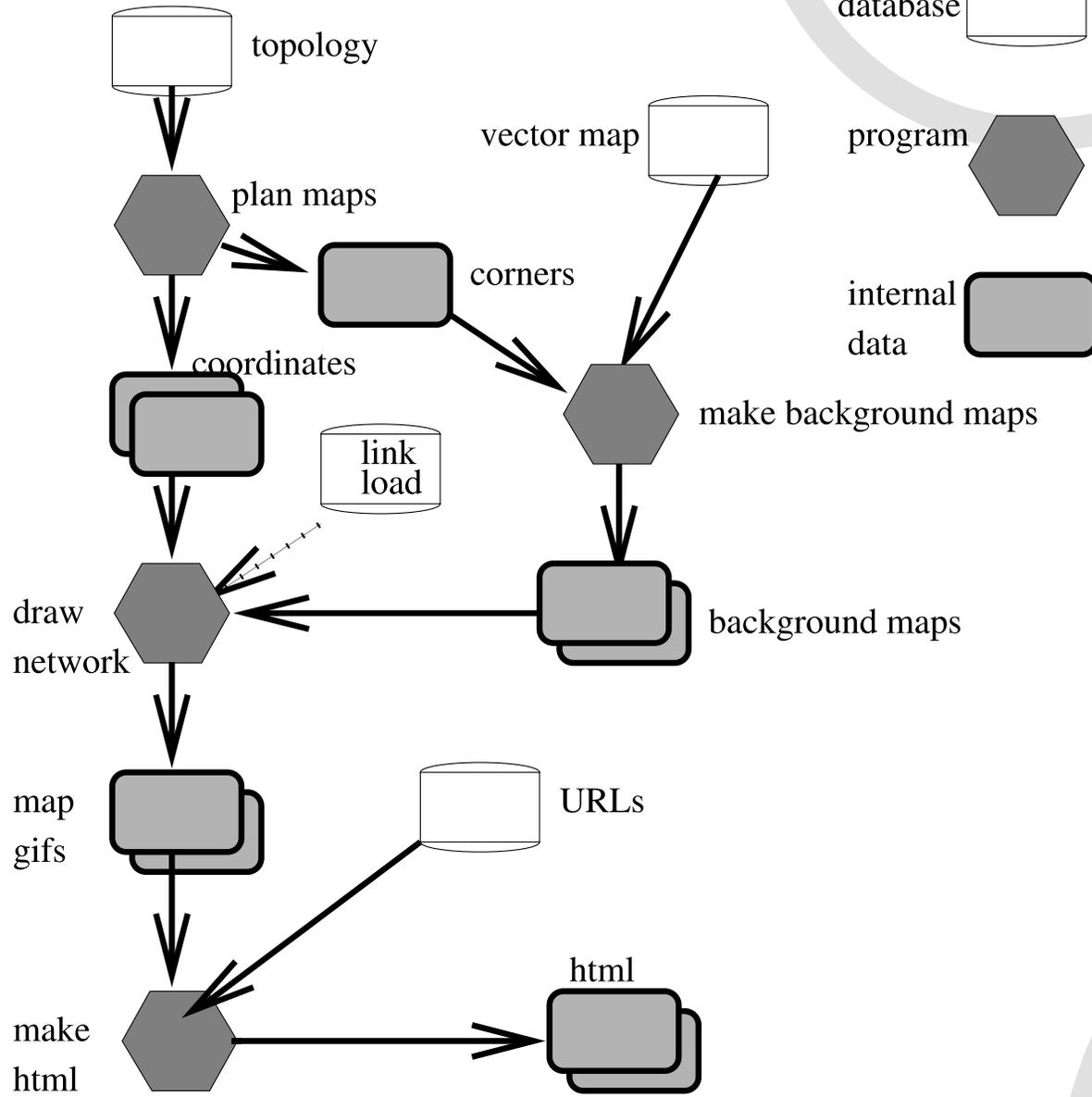
# Clients

**html** standard html with map images and client side imagemaps for references and zooming

**menumap** client side java applet that show a map with menus of URL's over points, lines and maps uses server side script to generate next map

**nemo** clientside java program that access SQL-database for maps and traffic statistics do local zooming and drawing of maps animates network characteristics like link and cpu-load

# Network Map System



## The basic tools

- extract topology information from our customer database (arsrapp, sql)
- break the complete topology down to suitable maps(kartluk)
- generate geographical and topological background images(kartgrunnlag)
- map the link load to colors on the map(kartlastgif)
- draw a network map on a background image with configurable icons(kartgimage)

## Basic web

- generate references for the maps based on database info(karturl)
- make html for showing and zooming maps(kartmap)
- aid the user with navigation and menus with a Java-client(menumap)
- import Zino and Genplot SNMP data(lastnuh)
- cgi to generate html with loadmaps (last)

# The implementation

- Perl-scripts with Unix filter style behaviour
- Flat files for intermediate formats (coordinates, URLs)
- Postscript files carry transformation info
- Cgi-scripts in perl
- MenuMap is browser-embedded Java
- Nemo is standalone java using java webstart  
database is Postgresql

# Data model - coordinates

## **Coordinates file** per map

PUNKT type navn sone koordinat1 koordinat2 (karttekst)

LINJE type navn punkt1 punkt2

- sone = UTM => koordinat north east
- sone = GIF => koordinater x y
- UTM = WGS-84

## **URL-file** one per system

INFO menu-text

LINJE name URL

## **Corners file** list of maps with corners - per system (.omriss)

name,vector-map,type,selections,corners

- type=SOSI | GIF