

The Small Web: Gopher, Gemini & Spartan

Karl Jeacle

Amiga Ireland 2023

CONTENTS

- Definition
- Gopher
- Gemini
- Spartan
- Demo

DEFINITION

- What is The Small Web?
- Minimalism
- Function over form
- Simplified protocols
- Private not commercial
- Low bandwidth content

GOPHER

GOPHER HISTORY

- Created in 1991 by University of Minnesota
- Text-only menu driven hierarchical browser
- Early growth and success
- Licence fee required in 1993
- CERN made Web free to all
- By 1994 Web had overtaken Gopher



OBSERVABLE GOPHERSPACE UNIVERSE PROJECT
(OGUP)

scanning the gopherspace since 2019

The OGUP is a high-power radar tool that continuously scans the gopherspace looking for signs of intelligent life. Its results are published here for the benefit of the international gopher community.

- > [19] List of all reachable servers/
- [20] Show 5 random gopher servers/
- [21] Servers that went recently down/

- [23] Gopherspace population over time/

- [25] Submit a new gopher server/
- [26] About the project/

As of 2023-01-13, the OGUP knows about 317 active servers.

GOPHER PROTOCOL

- Site content maps to filesystem
- Server listens on TCP port 70
- Client sends a "Selector"
 - filename.txt<CR><LF>
- Server responds with content (no header)
 - Ends with line containing full stop
- No markup but Gophermap allows links

WHY GOPHER TODAY?

- Structured content
- Gopherholes and Phlogs
- Site count increasing again
- Well-suited to retro computers
- Ultimate in simplicity

AMIGA GOPHER SOFTWARE

- Gopher [AmigaGuide]
- BBGopher, Lynx [CLI, C]
- IBrowse (full version)
- ArLan [MUI, FreePascal]
- AmiGemini [Gadtools, C]

GEMINI

GEMINI

- Created in 2019 by solderpunk
- Is heavier than gopher
- Is lighter than the web
- Will not replace either
- Strives for maximum power to weight ratio
- Takes user privacy very seriously

GEMINI PROTOCOL

- Encrypted TCP port 1965
- Unicode chars, UTF-8 encoding
- Client certificates for logins
- Request: single line with URL
 - `gemini://foo.com/bar/<CR><LF>`
- Response: single line header
 - `20 text/gemini<CR><LF>`

GEMTEXT

```
# Heading 1
## Heading 2
### Heading 3
```

```
=> gemini://foo.com/bar/ Click on this link
```

```
```\n
```

```
Here is some preformatted text
```

```
```\n
```

```
Here is a list:
```

- * Item 1
- * Item 2
- * Item 3

```
> Let me quote some text:
```

```
> This is called a blockquote
```



- where capsuleers hang out -

```

                                     1;;i,  i;;i
::1:      ;;t;                      1:it,  i::t;
;:1;.    fl;Li      *              1t:tt.  1;;t;
1,li.    Ct:L1                      tt:t1.  ;i,lt,
L:i1,    tf:Lt                      ti;fi  li:ft
t;iC;    it:tt                      tiiL;  1;;ti
Lt;f;    ;L;i1.                    .i:if, ,t;if:
.liii1fLCf1;iftfGLttfLf1t1tftffCfttffftfiltttliii1i1,
:fiLili;10Gif80808GGLCGCGctf00@G1fiG8fliftC@t
.f;t@i    li:@C.t:,,;;itCCffGff111l:iLt:.i0ti: .;GL.
,flf81    tt;0L          .ttttLCCfttft.      i;;t:  ,;i1
.lf;lf    if:f1          ;ii:                ,l;it,  ;:i1
.:L1li    ;Li1:          ;iiii;            :1;11,  :::li
:ii;      ;i;           ;l:ti  i;;t;
                                     i;ti  1;lt

```



AMIGA GEMINI SOFTWARE

- AmiGemini
- IBrowse (full version)

SPARTAN

SPARTAN

- Created in 2021 by Michael Lazar
- Very similar to Gemini, but...
 - No encryption
 - ASCII only
 - Upload support
 - Input prompt

SPARTAN PROTOCOL

- TCP port 300
- Request: host + path
 - foo.com /bar/ 0<CR><LF>
- Request: host + path + bytes to upload
 - foo.com /bar/ 1234<CR><LF>
- Response: single line header
 - 2 text/gemini<CR><LF>



AMIGA SPARTAN SOFTWARE

- AmiGemini

DEMO

The End

karl@jeacle.ie

