

Other languages:

English ? ?????????? ? ??????????

Hardware with OpenWrt, TELEOFIS RTU968

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Description: OpenWrt is a highly extensible GNU/Linux distribution for embedded devices (typically wireless routers) and the page dedicated for hardware with OpenWrt and OpenSCADA installation there. Materials:

- Packages and firmwares building conception for OpenWrt
- Ready to install packages for OpenSCADA 0.9 Work:
<ftp://ftp.oscada.org/OpenSCADA/Work/PLC/TELEOFIS-RTU968/>



This hardware has features:

Hardware platform: ARM9 (ARMv5)

Central processor: i.MX287 454MHz (ARM926EJ-S)

<i>Memory:</i>	128 MB DDR2
<i>Solid memory:</i>	flash card
<i>Electrical power:</i>	10...50V, 8W
<i>Interfaces:</i>	2x3G(HSPA, UMTS, EDGE, GPRS), 4xGPIO, 2xEthernet 10/100M, 1xRS-232, 1xRS-485
<i>Weight:</i>	168 g.
<i>Size:</i>	97 ? 78 ? 36 mm
<i>Conditions of exploitation:</i>	-40...+70°C

The hardware has a pre-installed environment based on OpenWrt and the hardware platform "Freeseale i.MX23/28". OpenWrt there is accessible by SSH "root:root" and allows to install packages in format IPKG.

To build a package of OpenSCADA of IPKG there was used a ready SDK of the platform "Freeseale i.MX23/28" for OpenWrt version "Chaos Calmer (15.05.1)", BuildRoot rules of OpenSCADA and the generic description of OpenWrt.

OpenSCADA was built with the modules:

- DB: {SQLite, DBF};
- Transport: {Sockets, Serial}, SSL};
- Protocol: {SelfSystem, UserProtocol, HTTP};
- DAQ: {JavaLikeCalc, LogicLev, BlockCalc, DAQGate, ModBus, DCON}, System, OPC UA};
- Archive: {FSArch, DBArch};
- UI: WebCfg, WebCfgD, WebUser};
- Special: {FLibSYS}, SystemTests, FLibMath, FLibComplex1.

OpenSCADA also was built with the internationalization support by libraries "libiconv" and "libintl" but the initial environment of OpenWrt doesn't support the internationalization in whole!

To install the OpenSCADA package to the device we also needed for some extra depend packages: libstdcpp, libintl-full, fftw3, sqlite3. Then we must download all the packages to the device by SSH, for example to folder "/root" and next to connect remotely to the console interface by SSH and call here:

```
$ opkg install /root/libstdcpp_4.8-linaro-1_mxs.ipk
$ opkg install /root/libintl-full_0.19.6-2_mxs.ipk
$ opkg install /root/fftw3_3.3.4-1_mxs.ipk
$ opkg install /root/sqlite3-cli_3081101-1_mxs.ipk
$ opkg install /root/openscada_0.9+r2517-1_mxs.ipk
```