

TECHNICAL DATA

PSTN interface	A (E1) interface for the switch, Z interface for working stations	Remote station technique	DPB module plus flexible multiplexer FM2x2, or ISDN line
LAN interface	100 Base Tx Fast Ethernet IEEE 802.3 μ (100 Mb/s)	Voice machine channels	30 – 480
Signaling	1 bit R2, 2-bit R2, CCS No7	Switching matrix	64 x 64 PCM mux
Charging	all kinds of PSTN charging, set by FPC or by the switch	Working station software	Windows XP (Win 2000), SQL client, Visual Basic, C++
Trunk channels	30 – 480	Server software	Linux, C++
Operator working stations	1 – 360	DK module software	C, C++
Local working stations	1 – 240	Power	DC 48 V for servers and DK, AC 230 V for working stations with DC UPS as an option
Remote working stations	0 – 120		
System working station	one for each installed server		



FPC FLEXIBLE CALL CENTER

*Flexible
Call Center*

Inbound

IVR

ACD

Outbound



Virtual Network

Unified Messaging

**Local &
Remote
Working
Stations**

IRITEL
BEOGRAD

TELECOMMUNICATIONS AND ELECTRONICS CO.

Batajnički put 23, 11080 Belgrade, Serbia and Montenegro
General Manager: (+381 11) 3073 515, Sales: (+381 11) 3073 555
Marketing: (+381 11) 3073 544, Exchange: (+381 11) 3073 400, Fax: (+381 11) 3073 434
<http://www.iritel.com>, e-mail: info@iritel.com

IRITEL
BEOGRAD

Call Centers

Since 1990 Iritel is developing and producing call centers for PSTN.

Several families of call centers were produced according to customer demands and technological upgrades. These are: NIPS, SIT, SIB and FPC.

FPC is a call center designed to fulfill all demands of a potential customer. Its flexible hardware and software structure enables many different functions.

Basic functions

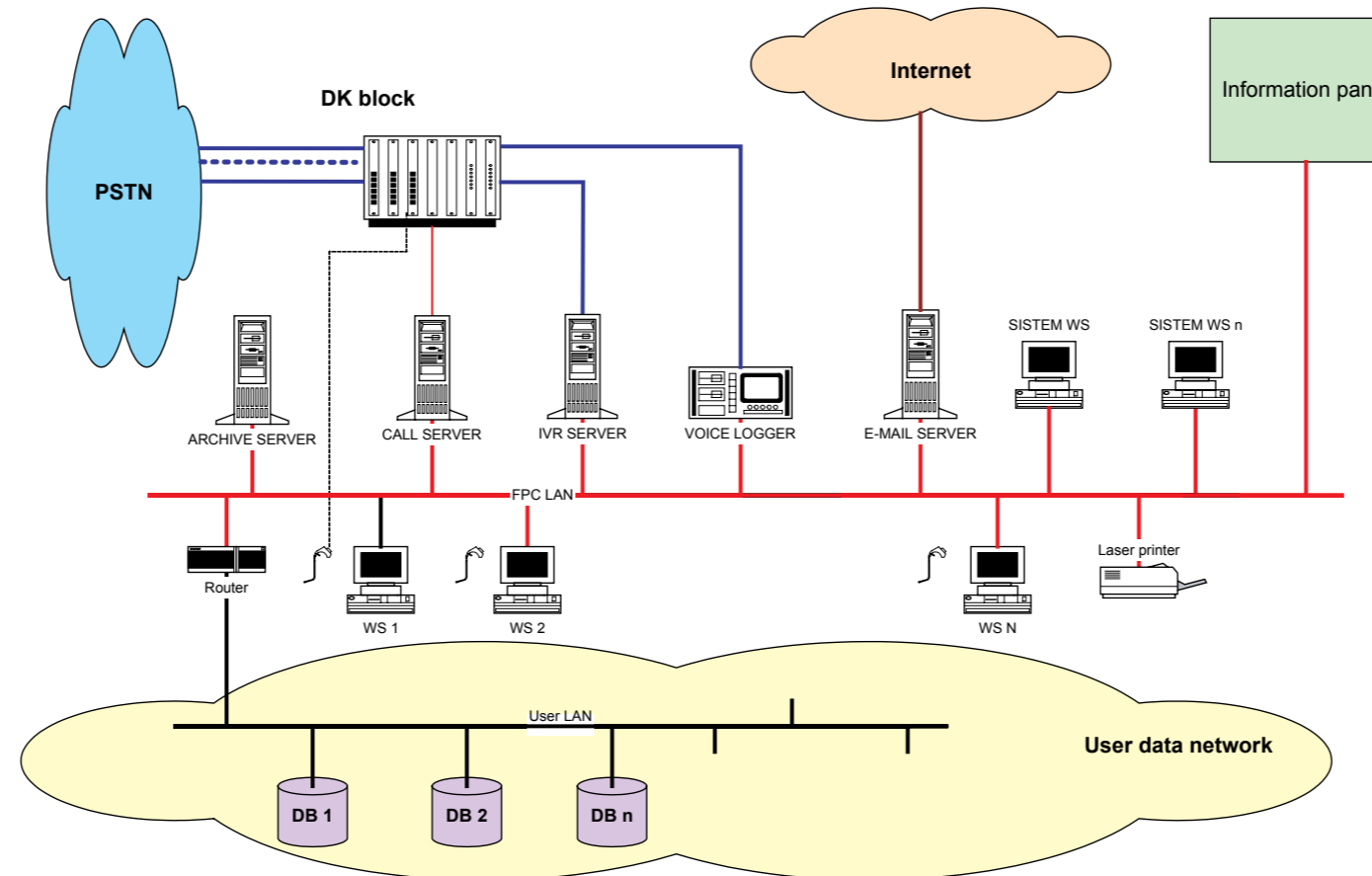
- Call handling
- Searching through customers data bases
- Data archiving
- Interactive voice response IVR
- Unified messaging:
 - e-mail
 - voice mail
 - fax
- Queing of calls
- Music and voice messages on hold
- Automatic call distribution ACD
- Automatic operator introduction
- Voice machine speaking information
- Call charging only in case of valid information given
- Automatic outbound calling
- Exact time speaking machine synchronized on time etalon
- Variable number of inbound and outbound voice channels
- Local and remote working stations
- FPC virtual network
- Statistics, diagnostics, surveillance, maintenance
- Human work statistics and planning

Basic services

FPC supports the following services:

- Information calls: directory services, various informations, etc.
- Call handling: immediate, in defined time
- Inbound and outbound sessions
- Call waiting (call waiting tone, music, voice messages)
- Call transfer
- Call intrusion (with an alert tone)
- Internal operator connections
- Conference calls
- Automatic announcements (exact time, bill accounts, weather report, sports, etc.)

FPC block diagram



Configuration

Standard FPC configuration consists of:

- Telecommunications part
- Server part
- Working stations
- LAN equipment
- Additional equipment

Telecommunication part of FPC is a digital switching block – DK, which connects FPC with PSTN.

DK consists of three modules: working station module, trunk module and switching module.

- Working station module - RMM contains:
 - 1 to 240 working station module interfaces;
- Trunk module -DPB contains:
 - 2 Mb/s PCM multiplex with 30 trunk

channels – E1 interface;

- FPC contains up to 16 DPB modules;
- Switching module - KM contains:
 - switching matrix of 64 x 64 PCM multiplex
 - 1 to 2 voice machines with 240 independent voice channels each.

FPC capacity is designed in close cooperation with the customer. Thus, adding RMM and DPB modules can increase it.

Server part of FPC contains:

- SOP – call management server
- SAP – data archive server
- SGP – IVR (interactive voice response) server
- SEP – e-mail server

Not all of the servers must be present in FPC. The configuration depends on user needs and traffic performance. One computer can work as many servers (SOP, SAP and SGP).

FPC has two kinds of **working stations** -RM:

- Operators working station,
- System working station.

Operators working stations can be:

- Local
- Remote

FPC can have arbitrary number of operators and system working stations.

Servers and working stations are connected to a **FPC LAN**, which is by an uplink connected to a user LAN (WAN).

Additional FPC equipment is:

- Information panel
- Laser printer
- Router
- Digital voice logger