National report

Hungary

Strengthening of the capacity of the institutions from selected EU countries in the field of implementation of Regulation (EC) No 883/2004 and 987/2009 and introduction of the electronic data exchange (EESSI)

Content:

1. Introduction:

As a beneficiary of the EU PROGRESS Project, the National Pension Insurance Directorate General has—in the first phase of the project implementation—reviewed the professional and technical conditions of, as well as the current state of preparedness of Hungarian authorities for, the electronic data exchange (Electronic Exchange of Social Security Information, hereinafter: EESSI) between the social security institutions of EU Member States, to be launched on 1 May 2012.

The community preparations for EESSI's introduction started in 2006, with the Hungarian EU institutions gradually taking up their tasks in the committees from that time on, while closely monitoring the developments in the implementation of EESSI.

The present status report introduces the Hungarian social security system of organizations, the current preparatory tasks of institutions participating in EESSI, as well as the decisions that need to be made to bring the service live at the planned date.

1.1 The national organizational structure description

At present, the following state agencies are directly affected by social security coordination regulations, as the administrative procedures related to benefits falling under these regulations are within their scope of responsibilities:

Central departments under the control of the Ministry of National Resources (Nemzeti Erőforrás Minisztérium – NEFMI):

- Central Administration of National Pension Insurance (Országos Nyugdíjbiztosítási Főigazgatóság – ONYF)
- National Health Insurance Fund (Országos Egészségbiztosítási Pénztár – OEP)

Central departments under the control of the Ministry of National Economy (Nemzetgazdasági Minisztérium – NGM):

- Hungarian State Treasury (Magyar Államkincstár – MÁK)
- National Public Employment Service (Nemzeti Foglalkoztatási Szolgálat – NFSZ)

Although the number of ministries responsible for these tasks has decreased recently (2 instead of 3: NEFMI and NGM), the tasks related to the coordination of social security still belong to more than one departments, and the Minister of National Resources is responsible for coordinating these, as stipulated in Government Decree 212/2010. (VII. 1.) paragraph 48. § (4).

1.2 The accepted AP resolution (relevant spectrum)

Since its accession to the EU, Hungary has actively participated in the work of the Administrative Commission and the Technical Commission, and receives constant information updates on the developments of the EESSI project as it progresses toward completion. The competent bodies have contacted all potential Hungarian players, and they regularly negotiated the tasks facing the state administration and the measures needed at the given stage of the EESSI with them.

Following the negotiations that ran simultaneously with the community tasks of the EESSI project, the interested parties held professional and technical consultations at the end of March 2010 in preparation for the necessary governmental decisions. During these consultations, the most urgent governmental tasks related to

EESSI were identified, with special regard to matters related to the designation of Hungarian access points (AP) and the scope of data to be supplied for populating the Central Directory to enable the use of the Public Access Interface.

The data supply task needed for populating the Central Directory was closed on 1 May 2010, when the homepage with the structured data of all European social security institutions, based on the Public Access Interface function and operated by the Commission needed to be launched as the social security coordination regulations came into force. Hungary helped form the Hungarian data content of the homepage by supplying the necessary data with the cooperation of the coordinating ministry and the interested institutions.

A further task was to prepare and make the government level decisions related to the Hungarian APs, their number and their creation. The necessary decisions were made following the governmental transformations in 2010.

In the period before 2010, the interested institutions assumed that only one AP would be set up in Hungary, within the framework of the Prime Minister's Office's Electronic Governmental Centre (Miniszterelnöki Hivatal Elektronikus Kormányzati Központ – MEH EKK), and the central agencies would only have to provide their own developments to connect to the AP. Based on negotiations with MEH EKK, Hungary informed the European Commission about this.

A relevant change came on the 2010 March meeting, where it was suggested that the AP should be set up within the department providing professional supervision, while network access to sTesta would be provided by MEH EKK. Upon accepting this, the interested parties agreed that they would consistently represent this concept. When the Ministry of National Resources (NFM) took over control of the Governmental Backbone Network (EKG), its experts thought that this was a useful and legally viable, as well as cost-effective solution.

Beside the ministry level governmental tasks, the interested central agencies also started the preparations for the introduction of electronic data exchange. The financial and professional planning of the IT developments started with the analysis of EESSI documents and the modeling of the traffic of structured electronic documents (SED). When determining the development requirements, the legal organizations assumed that only one AP would be set up in Hungary.

In the first half of September 2010, the AP was set up in beta mode at the NEFMI, considering the still uncertain elements of the project and the fact that the Government had not yet decided on the appointed body responsible for operating the AP. The functionality of the AP was consistent with Decision E2 of the Administrative Commission.

The final number of Hungarian APs is expected to be determined in a governmental decision in the spring of 2011, but a decision overruling the one AP model is not likely, based on former experiences and professional, technical and budget considerations.

An argument for the single AP model in Hungary is the fact that the number of judicature bodies is not very high, so the organizational structure is more transparent, especially compared to large member states where in some sectors private organizations are also part of the system. Further aspects, advantages and disadvantages considered:

In a single AP model, only one investment for the system is needed, and the related tasks can be considered as a single governmental responsibility and a single cost item in the budget. Operation will be done centrally, in a uniform manner. Another argument supporting this solution is that this structure will be more resilient to possible future governmental transformations. A disadvantage of the single AP model is that any potential malfunctions in the system would affect the entire domestic service. However, troubleshooting could be performed centrally and with considerably more resources.

A definite advantage of multiple APs would be that only a malfunction of the entire (international) EESSI system could render all sectors inaccessible. Considering one AP per central agency (4 APs altogether), development costs would be considerably higher, and operating 4 APs would require more personal, material and operational assets.

1.3 Grounds for the accepted resolution

Despite governmental transformations, the EESSI project (and in general the entire social security coordination) retained its inter-ministerial nature, as the direct judicature bodies are under the control of multiple ministers. The Hungarian government is currently involved in EU projects whose IT communications are provided by sTESTA, the access of which is provided by NFM (formerly MeH) EKK.

Considering the above, the following solutions are possible:

- setting up the AP at NEFMI (responsible for social security coordination in the government);
- assigning AP tasks to NFM EKK, with the involvement of other ministries if necessary.

As stipulated by Government Decree 212/2010. (VII. 1.) paragraph 48. § (4), the minister of national resources is assigned the task of coordinating social security in the government, and operating the AP can be considered as part of this task. If the first version is not supported by the government decision, setting up the AP at NEFMI seems viable. The interested parties supported this alternative, and there were no legal, technical or budget concerns that would require the AP to be set up at NFM. The NFM confirmed that this solution is viable, effective and cost-effective.

1.4 The risks identified in the course of accepting the national resolution decision

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1.5 Financing (possible for particular AP)

The financial recourses are ensured in the budget of the Ministry of National Recourses. As it was stated previously the one single AP is located in this Ministry and hence no additional financial requirements emerge at institutional level.

1.6 The project administration (possible for particular AP)

The European Commission does not define the professional framework of the project implementation beyond the IT requirements, but it specified scopes of responsibility that are indispensable (as laid out in the Administrative Commission's decision). Therefore one contact person per AP needs to be appointed, and in the case of multiple APs a national contact person is required.

In the context of Hungary this means that (assuming the current single AP model) an appointed contact person will perform the relevant coordination and professional tasks.

Although a general and full-scope task sharing is only possible in principle at the present stage of the project, a few decisions had to be made.

Furthermore it was necessary (due to practical reasons) for the interested central agencies to appoint a person per agency responsible for implementing and operating the project in the given sector and handle its IT requirements (including the update of institution data in case of changes). The relevant central agencies also appointed further responsible persons and assistants for internal tasks.

The national contact person primarily cooperates with professional experts of the central agencies (with this cooperation becoming more intense as the project progresses), while the AP contact person cooperates with IT experts of the central agencies continuously throughout the project implementation phase and after the launch of the EESSI application.

1.7 The national resolution time planning – FI, BG, CZ, HU

For the EESSI introduction to be successful, different task schedules were defined in the national preparation plan. The schedule ranges from the full-scope implementation of the AP through the connection and testing of central agencies to the start-up of the fully functional Hungarian EESSI system. Based on these, the national EESSI preparation plan consists of the following phases:

a) First phase: setting up the AP

The AP was set up in Hungary in September 2010 and has been operating with a limited scope, regardless of its actual location.

The most fundamental parameters of the AP can be set in practice, making it possible to identify further developments that might be necessary both on the AP level and on the central agency level.

b) Second phase: joining of central agencies

In the second phase, the central agencies begin the developments required for joining the AP based on the technical/IT specifications defined by the European Commission. The planned implementation date is 30 September 2011.

The most important effects from a budgetary and HR point of view are expected in this period, considering the tasks needed for the phase to be successful.

c) Third phase: finalizing the functionality of the system

If the previous phase is successfully finished, there will be still enough time fine-tune the system based on practical tests, and prepare for the introduction of the information exchange by January 2012. From a budgetary point of view, this phase is not expected to be too challenging.

d) Fourth phase: introduction of electronic information exchange on a Pan-European level

According to current plans, EESSI will be introduced from May 2012, but the Administrative Commission can modify this date depending on the level of preparedness on a European level.

Considering the several uncertainty factors, the above schedule was created with the necessary flexibility in mind, to make the Hungarian preparations as independent of the limits of planning as possible.

2. The National Architecture:

2.1 The AP map

The Hungarian AP has a very limited budget, due to the current economic conditions. Based on the currently available documentation (no performance logs are available at the time of the creation of this document), the services within the framework of the project and the large amount of personal data calls for a high-availability and fault-tolerant system.

Based on currently available information, Hungary will operate the AP as outlined below, if a different government decision does not change the current conditions.

2.2 The architecture of particular AP (graphics with descriptions)

The software was developed by Siemens with a low budget application in mind, using open source components. The system does not provide fault-tolerance and scaling features, as it was not defined as a requirement at design time.

The system is very limited, as it supports one specific RedHat Enterprise Linux version only. The lack of support for installing updates (regardless of their safety or functional importance) clearly shows how limited the system is. Providing support for these updates is an important challenge for the future production use of the system.

Availability and data security are the most important requirements, and cost-effectiveness is also an important factor to consider. As the system plan provided by Siemens does not include high-availability functions, we have implemented these in the system. The implementation of HA (High Availability) functions is limited by the extremely restricted installation environment where no modification of the original installation is possible.

Currently it is not entirely clear whether the relevant Hungarian institutions will need the WebIC application (if only temporarily). If the system developments are not finished by the deadline, for example because of the handover of the necessary development descriptions, WebIC can be a temporary alternative for preventing any infringement situations due to deadline issues. WebIC needs to be deployed in parallel with AP technically, which can mean that extra assets might become necessary.

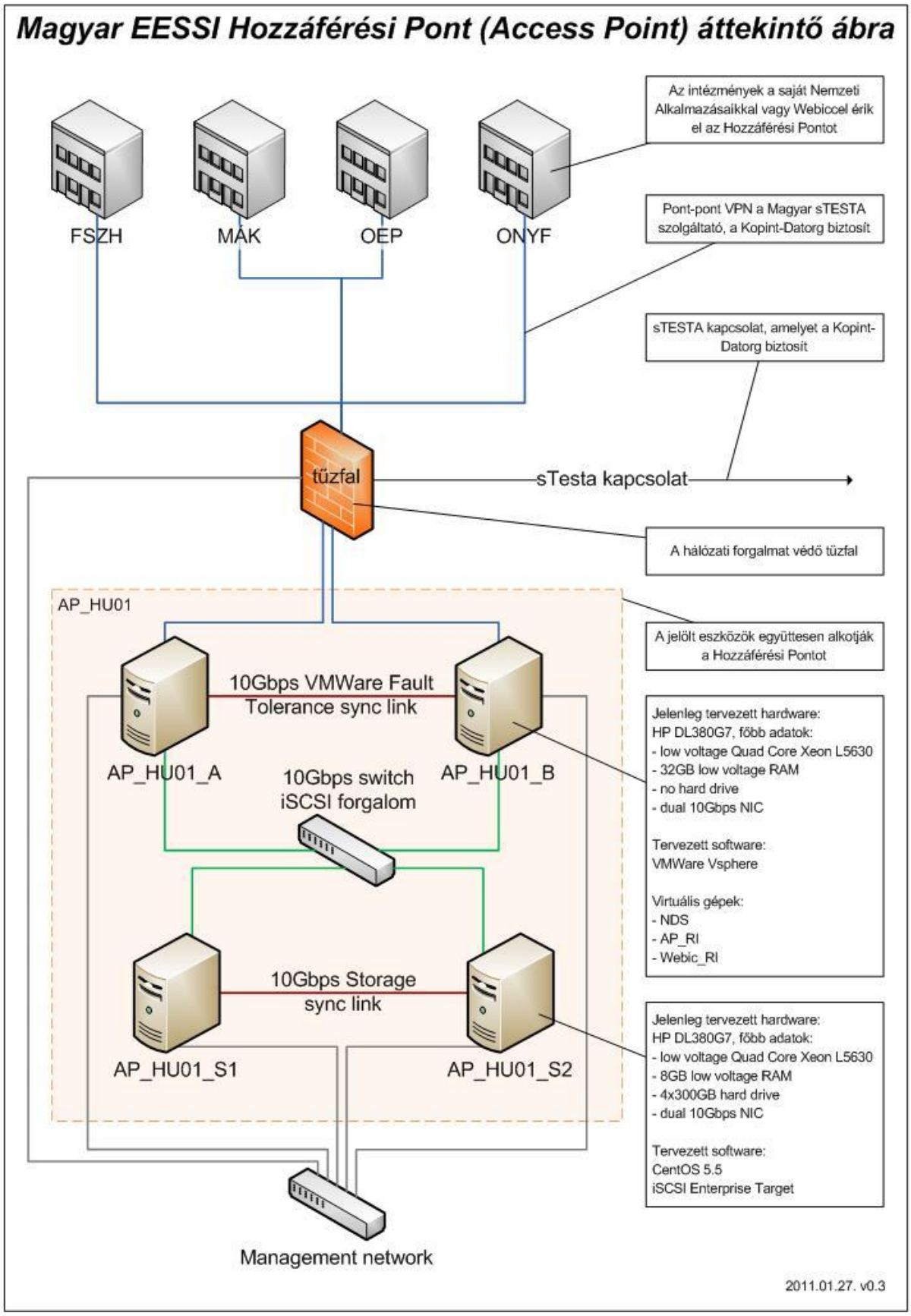
The development of national professional applications is progressing slowly, mainly because some of the necessary development documents are still missing. If there will be further delays or changes in the specifications, the institutions can expect considerable fallbacks when implementing the developments. Publishing the high level ICD2+ interface is useful, but a bit late. Also, some other preliminary documentation would be needed for the developers to be able to determine whether the migration to the new interface is worth the effort.

System requirements are the following – based on the last RI System Overview Manual – for the standard installation:

- Intel x86 server with 64-bit CPU, 8GB RAM, 64GB HDD for AP RI
- Intel x86 server with 64-bit CPU, 6GB RAM, 64GB HDD for NDS
- Intel x86 server with 64-bit CPU, 8GB RAM, 64GB HDD for Webic (if applicable)

The system is built from "cheap" components that can be replaced with identical or more effective ones if needed. Also, the performance of the system can be enhanced by adding more elements. As at present mainly HP DL380 systems are in use, the plans involve similar systems for management and uniformity reasons.

The AP and related systems (NDS, WebIC) and services run on two servers. These servers are equipped with two low-voltage Xeon L5630 CPUs and 32GB of low-voltage memory, without HDD. To support the HA (High Availability) layer and scalability, VMWare ESX or Citrix Xen is used. Two further systems provide the redundant, two-way and reserve iSCSI storage system using RedHat Enterprise Linux or CentOS. The CentOS is a binary compatible but fully open source version of RedHat Enterprise Linux. A separate firewall is used to protect the system. This solution enables further services, like setting up the geographically separate reserve of the AP, while supporting the separated handling of privileges and tasks.


Magyar EESSI Hozzáférési Pont (Access Point) áttekintő ábra
FSZH
MÁK
OEP
ONYF
Az intézmények a saját Nemzeti Alkalmazásaikkal vagy Webiccel érik el az Hozzáférési Pontot
Pont-pont VPN a Magyar sTESTA szolgáltató, a Kopint-Datorg biztosít
sTESTA kapcsolat, amelyet a Kopint-Datorg biztosít
tűzfal
sTesta kapcsolat
A hálózati forgalmat védő tűzfal
AP_HU01
A jelölt eszközök együttesen alkotják a Hozzáférési Pontot
10Gbps VMWare Fault Tolerance sync link
AP_HU01_A
AP_HU01_B
10Gbps switch iSCSI forgalom
Jelenleg tervezett hardware:
HP DL380G7, főbb adatok:
- low voltage Quad Core Xeon L5630
- 32GB low voltage RAM
- no hard drive
- dual 10Gbps NIC
Tervezett software:
VMWare Vsphere
Virtuális gépek:
- NDS
- AP_RI
- Webic_RI
10Gbps Storage sync link
AP_HU01_S1
AP_HU01_S2
Jelenleg tervezett hardware:
HP DL380G7, főbb adatok:
- low voltage Quad Core Xeon L5630
- 8GB low voltage RAM
- 4x300GB hard drive
- dual 10Gbps NIC
Tervezett software:
CentOS 5.5
iSCSI Enterprise Target
Management network
2011.01.27. v0.3

2.3 The utilization of components given by European Commission (RI, ICD 1, ICD 2, MD, WEBIC)

See under point 2.2.

2.4 The utilization of national components

A. Central Administration of National Pension Insurance (ONYF)

1. Current status of EESSI preparation

ONYF viewed the modification of existing sector-specific applications since 2006 as the only viable solution for the migration to electronic management of data. Given the deadline changes in the EESSI community project and the delay in the publication of system descriptions necessary for application development, WebIC became a serious alternative in 2010. The shortage of budgetary resources and development capacity made the preparation for WebIC a requirement in January 2011 to comply with community cooperation requirements from May 2012.

The volume of developments of IT systems used in the pension insurance sector is determined by the fact that the sector did not use electronic data and information exchange before. The complexity of administration and IT systems is considerably high in the areas of EESSI capabilities and application, and the development needs cannot be precisely estimated. The deficiencies of EESSI determined during live testing pose the question whether it is justifiable to risk the operability of the sector's IT system with uncertain development elements. Even if the administrative disadvantages of WebIC are clear, we think that WebIC may prove to be a viable alternative for a transitional period, without risking the IT system of the sector, generating unnecessary additional costs and performing developments based on an insufficient set of requirements.

Keeping community requirements in mind, the need for sector system development is potentially to be expected after the launch of EESSI operations. In the following paragraphs, we provide a brief overview of ONYF's IT systems and infrastructure.

2. Administrative and IT systems used in the pension sector

Within the pension insurance sector, IT provides the unity of the sector's three main tasks (record-keeping, determining pensions and disbursement), as well as the efficient operation of systems supporting these and other tasks. Administrators working in the sector can use the mostly centralized computer systems through the national network implemented through the EKG (Governmental Backbone Network – Elektronikus Kormányzati Gerinchálózat).

The annual changes in legislation make it necessary to continuously fine-tune and upgrade the working systems, as well as to implement new ones. This way, the benefits can be determined, new entitlements can be added, automatic operations can be extended, manual work phases can be reduced, logical relations revised and the efficiency of checks improved.

2.1. Central Electronic Records IT system (KELEN)

Based on applicable laws, retirement benefits need to be determined in accordance with the records of the

pension insurance register. A considerable part of the pension insurance register is available in a uniform, centralized electronic database (hereinafter: KELEN).
The register contains the data related to length of service in Hungary, the salary earned from 1 January 1988, as well as other employer (FAB database) and employee (SZAB database) data.

The goal of KELEN is the electronic storage of data in a uniform and centralized manner, as well as the support for processing tasks (data reception, search, data matching, personal dossiers, keeping track of employers and managing employer data).

The record-keeping system introduced in 2001 (based on 2009 data) provides access to approximately 53 million scanned documents and photos, and about 100 million alphanumeric records online. This way, the data that had been locally stored by individual institutions became available centrally. The KELEN system has by now almost completely replaced the paper-based procedures.

The number of paper documents will not increase considerably, as the information supplied by employers is directly entered into the alphanumeric database through the use of storage media or the internet (Ügyfélkapu). The full size of the register is more than 12 TBytes based on 2009 data. During the implementation, the basic requirements were platform independence and the use of modern internet technology. The Java-based system is accessible online using the Java WebStart application.

2.2. IT system supporting the evaluation of pension claims (NYUGDMEG)

The evaluation of claims for pensions and pension-like regular benefits has been performed since December 1994 using the NYUGDMEG system. The system is an IBM AS400 platform-based unique target software.

The main „user" of the system is the evaluation activity itself (technically centralized, administratively decentralized) taking place at pension insurance directorates and their locations since 1 January 2011. International pension evaluation is the responsibility of the Central Pension Registry and IT Directorate (Központi Nyugdíjnyilvántartó és Informatikai Igazgatóság).

The system is modular, and supports claim evaluation based on Hungarian law, based on Regulations 1408/71/EEC, 574/72/EEC, 883/2004/EC and 987/2009/EC, as well as based on social security agreements and social policy agreements. It supports the evaluation process from the filing through the necessary measures to the closing decision. The data related to service length and salaries are transferred from KELEN to NYUGDMEG through an interface connection.

The system handles the evaluation of benefits based on health impairment, and partly supports the modification and legal remedy phases of such cases.

The following benefit types can be handled in the NYUGDMEG system in the standard, modified and second degree phases: old-age pension, disability pension, accidental disability pension, rehabilitation allowance, calculation of a variety of service lengths, fixed pension, accident allowance, early retirement, regular social allowance, transitional allowance, miner's pension, artist's pension, disability allowance, and special raise after a period of retired employment.

Widow's pension, orphan allowance, parent's pension, accident widow's pension, accident orphan allowance and accident parent pension is only handled by NYUGDMEG on the standard level.

Also, other benefit types need to be filed and handled in the system: miner's health impairment benefit, old-age benefit, disability benefit, widow allowance, compensation allowance, exceptional care, as well as other social benefits.

The E205 and E210 forms used for international pension evaluation between member states are created in

this system.

More than 7.4 million decisions have been created using the system készült (2009 data), and this amount increases by approximately 300,000 annually.

2.3. IT system supporting the disbursement of pensions (NYUFUR)

The Pension Disbursement Directorate uses IBM mainframe and medium capacity systems to support the disbursement of pensions and benefits. The pension disbursement database can be queried by administration units through the national network of the pension sector.

Currently, the database of nearly 5 and a half million benefits records needs approximately 250–300 thousand changes every month, using systems that differentiate between nearly 100 types of benefits and document the obligations of the central budget and other responsible parties.

Benefits and pensions need to be raised or retrospectively paid several times a year to comply with regulations, on a very tight schedule.

2.4. System for the central generation, storage and retrieval of outgoing documents (DOKUTAR)

The decisions made in NYUGDMEG (especially international decisions) are under re-organization. The goal is to become more independent of the evaluation system, to create a more integrated solution, and to provide central generation and archival capabilities for outgoing international decisions.

DOKUTAR is a Java-based system loading data from NYUGDMEG system (in XML format) into predefined templates, transforming these, as well as archiving XML data. The system is under development.

2.5. Additional user software

The three areas of the sector – record-keeping, evaluation and disbursement – are supported by several administrative IT application systems communicating with KELEN, NYUGDMEG and NYUFUR through online connectivity or administrators. Upgrading, updating and operating these is performed on an ongoing basis.

Apart from the large professional systems mentioned above, IBM Lotus Notes based systems are also involved in the administration. These are:
- the NYOMTATVÁNY database, where E001, E202, E203, E204, E210 and E211 forms are made, as well as P1 portable documents;
- the ELLENŐRI system,
- the MEGÁLL system,
- the MÉLTÁN system,
- the SEGÉLY system.

2.6. Electronic administration

a. Services offered to clients

Forms needed for claiming pension and pension-like benefits as well as NYENYI data forms can be downloaded from the ONYF homepage (since 2004). NYENYI data supply pages are also offer historic data availability. The forms can be accessed via the Governmental Portal as well.

The so called Dokumentum Kapu (Document Gate) for private persons has been available since 4 November 2005. The system is available from the ONYF internet portal (www.onyf.hu) and www.magyarorszag.hu, and

over 40 documents and forms can be downloaded or filled in here.

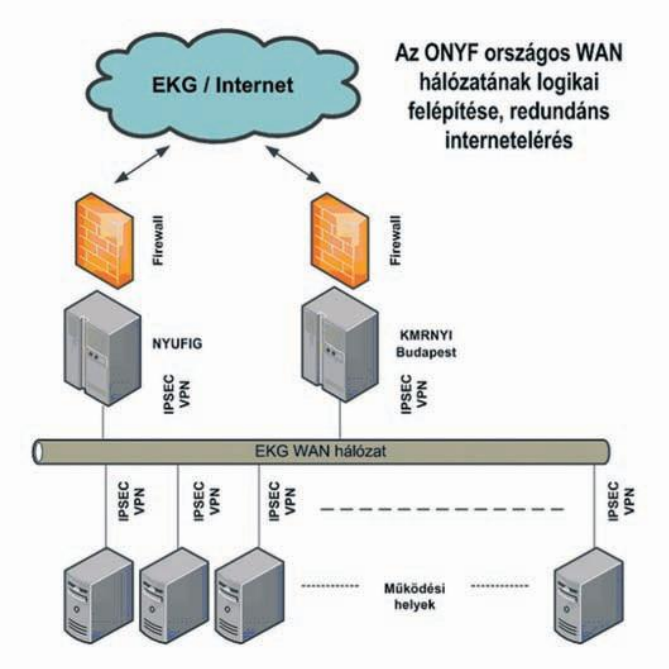
b. Services offered to employers

Since 16 April 2007, NYENYI data can be entered electronically (online). The primary goal was to eliminate traditional methods of data supply, and to reduce the administrative burdens related to data supply tasks for clients and administrators alike. The e-NYENYI service is under constant development, with the client application becoming more and more user-friendly in each version. Another goal was to enable employers to retrospectively supply data for the period before 2006.
The modernization of the NYENYI data supply system took place using the infrastructure and services provided by the Central (Governmental) Services System.

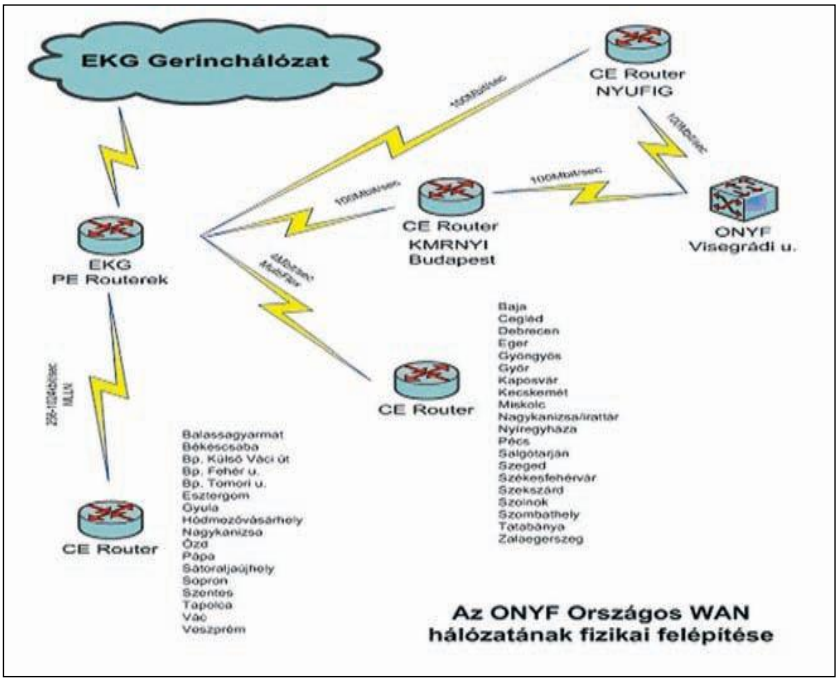
Both electronic systems (Dokumentum Kapu, e-NYENYI) are stable. They are more and more widely used by both private persons and employers. In 2009, 44% of employers and 74% of insured persons supplied data through the Internet, with 56% of all documents received through the e-NYENYI system.

3. IT infrastructure of ONYF

3.1. National IT network (WAN)



The National Pension Insurance Directorate General maintains a high-level and secure connection with the pension insurance directorates of the government agencies through an encrypted, star topology VPN implemented with the use of the EKG (Governmental Backbone Network – Elektronikus Kormányzati Gerinchálózat).

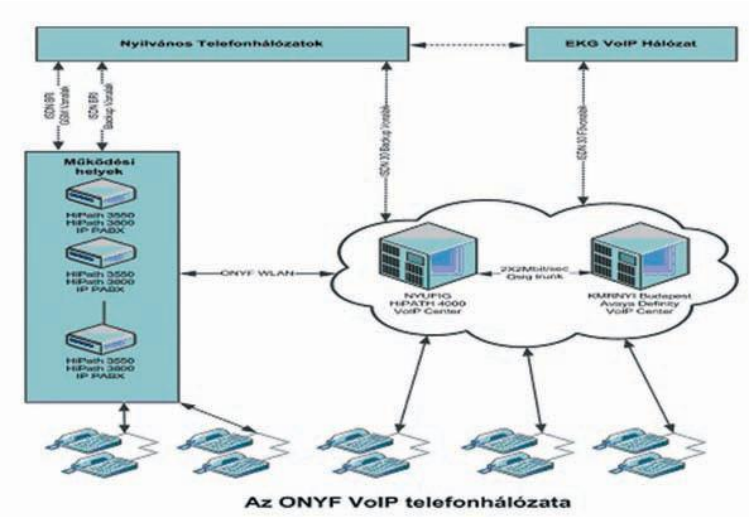


Main goals of the WAN data connection:

• to make the necessary data accessible from all directorates, and make the determination of pensions (data collection, processing, evaluation) as fast as possible;

• to provide the infrastructure needed for accessing the administration systems (mail, filing, internal data communication) and the sector-external data (Internet access), and;

• to provide toll-free voice traffic (phone) between the sector's bodies and the institutions on the EKG network.



The WAN network provides fast intra-sector communication, supporting a more efficient workflow. Examples of features include the Lotus Notes-based filing system, the central mailing system, the SAP-based financial register, the KELEN record-keeping system, and legal applications (Web-Jogtár, Céghírek) or the intranet web server.
Software updating, configuring and network analysis of the sector's routers is done using a customized QoS (Quality of Service) model.

3.2. Hardware and software environment of central systems

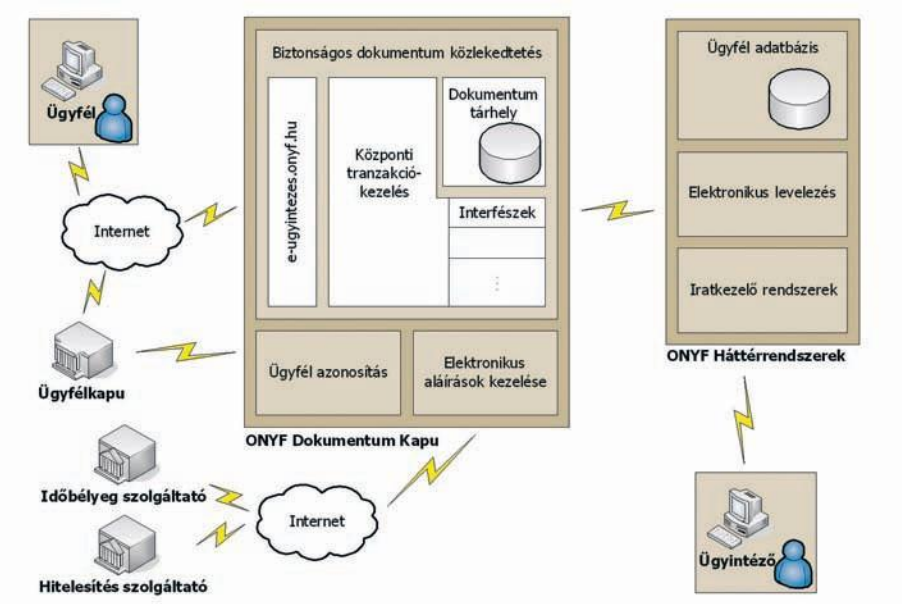
a. KELEN system

The KELEN system environment is based on 2 IBM P6 570 RISC servers. The environment-specific LPARs run AIX 5.3 operating systems with IBM WebSphere Application Server (WAS) application servers and Oracle 9.2.0.7 database management solutions. The administrators use IBM WAS servers to connect to the database manager.

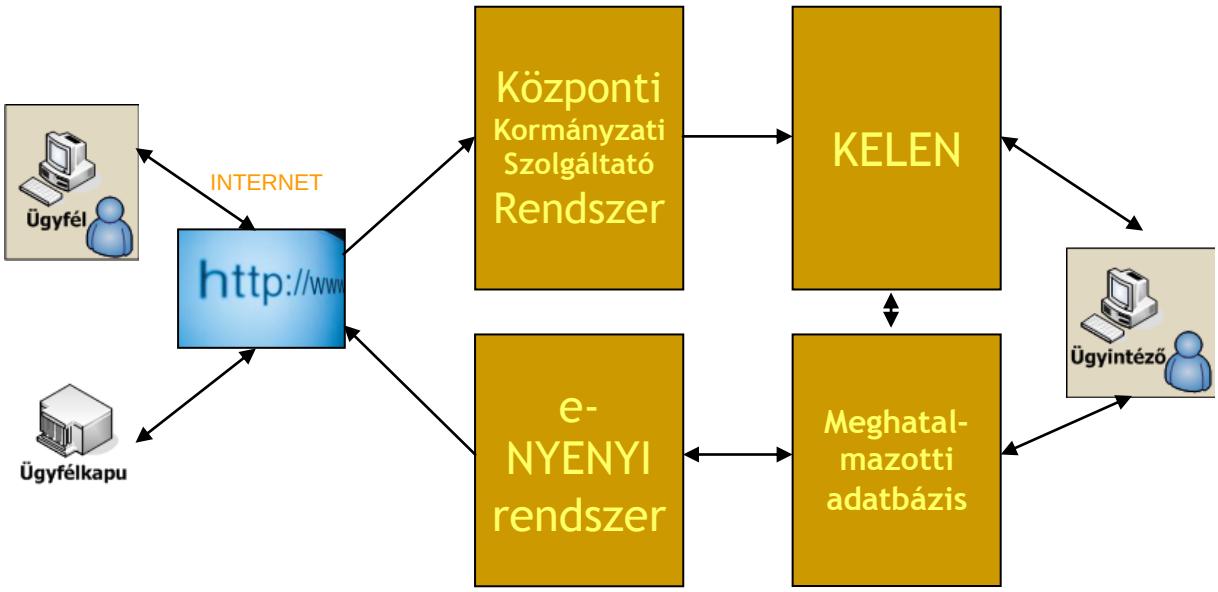
b. NYUGDMEG system

The system's server environment is based on 2 AS/400 servers operated at topologically different locations: 1 IBM i550 in ONYF's central computer room, and 1 IBM i570 in the server room of the Pension Disbursement Directorate (Nyugdíjfolyósító Igazgatóság).

3.3. Electronic administration in the pension insurance sector



3.4. Services offered to employers: e-NYENYI



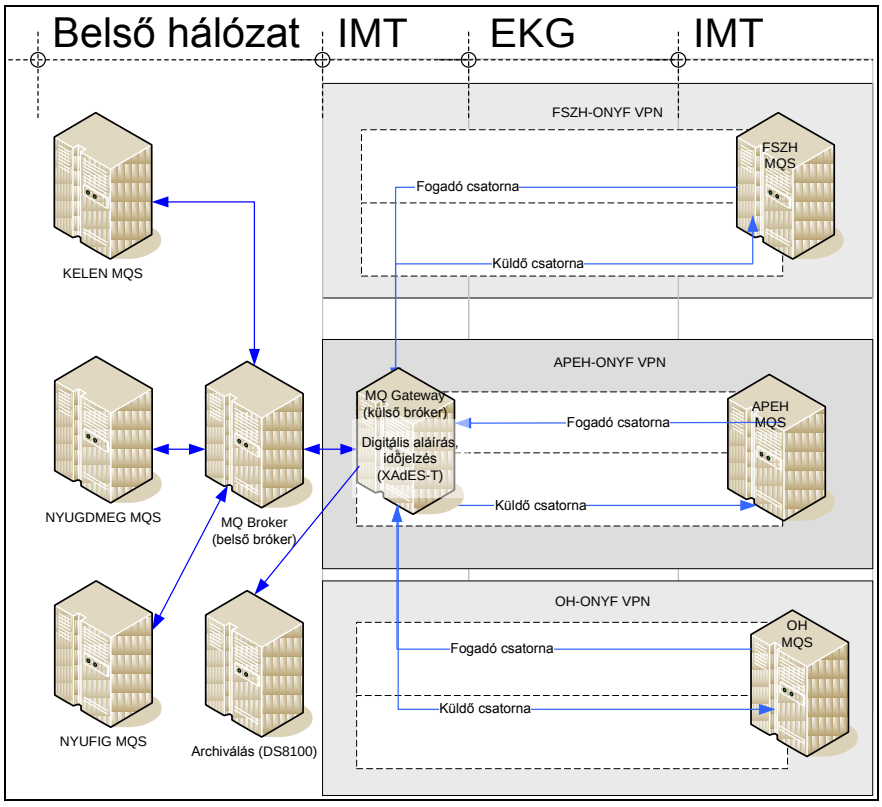
The modernization of the NYENYI data supply system took place using the infrastructure and services provided by the Central (Governmental) Services System.

3.5. Data connection system

ONYF launched the "Adatkapcsolatok kialakítása" (Building Data Connections) project in 2009 with the following primary goals:

- to create a standard communication infrastructure for providing a connection between the systems of ONYF and its external partners, and the internal administrative/IT systems of the sector,
- to provide data connections complying with laws and/or agreements between ONYF and NAV, NFSZ and the National Agency for Education (Oktatási Hivatal),

The figure below shows the infrastructural components required for (or involved in) the implementation of the data connection system and their logical relations. The figure illustrates the locations of the fulfillment of connection and signature requirements within the infrastructure.



During the project implementation the basic infrastructure elements of the data connection system (MQ servers) are created, and operating data connections are deployed with NAV and NFSZ partner institutions, as well as data transfer capabilities being added within the same infrastructure.

3.6. Data protection and system administration

The requirements of the protection of personal data and the publicity of public data sets the conditions that have to be provided for a data collection and management organization.
Special attention was paid to the safety and protection of the large amount of sensitive data managed in the pension insurance sector, with respect to the legislative requirements for „large data managers".

The control (data protection and security) of the pension insurance sector is a scheduled task to be performed by the data protection officer. Data protection is usually in the spotlight when citizens' personal data protection rights are harmed in some way, i.e. they suffer disadvantages, lose their self-determination rights in this respect, or their data are abused. As one of the large data managers, ONYF has several complex daily tasks related to prevention, i.e. to avoid the spotlight of public attention. Annual reports from the data protection supervisor confirm that complaints are rare, and always unfounded. The sector's data management has never been condemned in any decisions so far.
The sector complies with international (OECD) principles, with special attention to targeted use, limited application and safety/openness. Data security is always a priority.

Data traffic between the IT system and the WAN network is always encrypted!

B. National Health Insurance Fund (Országos Egészségbiztosítási Pénztár – OEP)

1. The IT situation before EESSI

The OEP, as the institution responsible for handling contributions in kind and cash benefits in Hungary, used a specially designed application for handling forms, recording benefits and related clearings stipulated in the Austrian-Hungarian and German-Hungarian social and safety agreements. Hungary's accession to the EU, and new agreements taking effect required a more complex system to be developed, which was able to handle E-forms used in the EU and by other agreements, and could keep the former eligibility records of the former program. Since the implementation of the first version of the program, a lot of developments have been made, and several additional functions have been integrated, due to changes in the international and EU requirements, and due to the modification requests derived from the program's actual usage. Such developments made the E-form system capable to issue and accept invoices electronically, and to handle specific requests arriving from the client portal, an electronic administration system, which operation started in October 2009. These e-administrative functions are not in connection with the form processing e-systems to be implemented in the EU.

2. Decision about the method of joining the EESSI system

When familiarizing itself with the operation of EESSI system planned to be applied from 1 May 1 2012 and studying the draft documentation, it became obvious to the OEP, that out of the two alternatives only the development of an own application is viable, as opposed to using the WebIC system provided by the Commission. This is supported by the fact that the Commission only proposed the WebIC system to member countries with low form processing traffic as an alternative solution, because the system itself is not flexible, and it cannot be integrated with external databases and applications. Another very important reason for the OEP to develop its own application is that although the privileges can be preserved after the introduction of the EESSI, the administration based on these privileges would become impossible in the abscence of historic data, not to mention the professional applications with several existing connections that would have to be replaced with other procedures in case of using WebIC.

3. Necessary modifications and their implementation plans

The Commission and Siemens have updated system descriptions continuously, and they were nowhere near their final status when the applicable EU regulations came into force, so the existing E-form system had to be transformed in order to comply with the changed requirements.

As the EESSI system uses SED (Structured Electronic Document) forms and Portable Documents for all communication, the most important development task is integrating these. As more than 12,000 institutions from 27 member states are joining EESSI, and this procedure cannot be performed at the exact same time for all countries, it became clear that SEDs needed to be used in printed form as well until all institutions join the system.

Following long negotiations with the developers, a cost-effective, staged development process was defined to guarantee the continuity of administration tasks. The development will be implemented in two phases.

First, the existing program had to be transformed in order to comply with new regulations and to provide compatibility with all forms („E" forms or SED), as well as portable documents after 1 May 2010.
Integration of the new type of SEDs was not necessary, as it was clear at this stage that the communication using these new forms would be based on entirely different (Business-Flow) work processes. Integrating these processes into the existing program would have taken considerable extra effort and time, because neither the descriptions of these processes, nor the SEDs themselves were available in their final form at the time. Unfortunately, the latter (the final versions of SEDs and process descriptions) are still unavailable to member states.

The second stage of the development plan includes the integration of the new forms into the framework and the implementation of electronic communications. In this stage, the program becomes capable of accepting

the process rules, handling, sending and receiving forms in electronic form, as well as printing those if needed.

4. Current situation

The transformation phase (first stage) is finished: all modifications were made according to new regulations. Currently preparations are being made for the second stage, with functional requirements already defined. The compilation of the technical specifications is in progress at present (due to the delay of documentation), although some documents are not even available in a draft form yet. OEP has no valid agreement for the actual development of the program, as the changes in legislation in 2011 and the yet unallocated target funds brought about further issues and challenges.

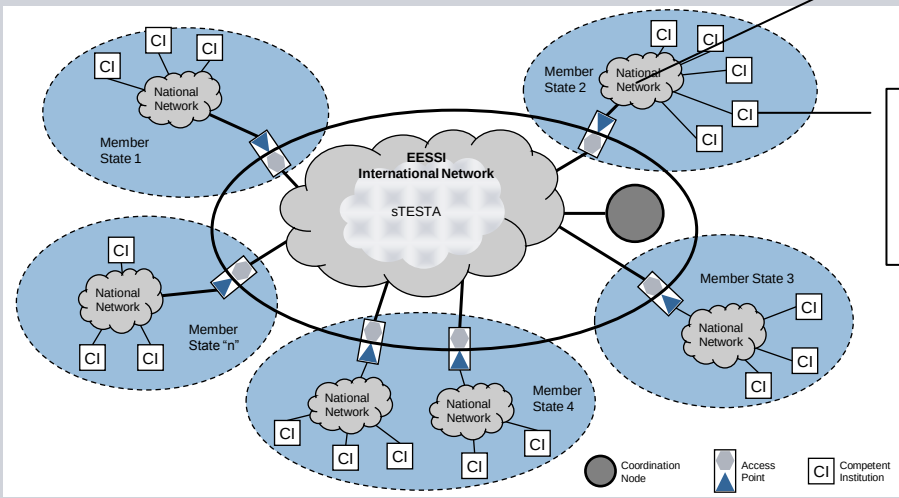
In 2010, the preparation of a government submission began, to precisely assign tasks and responsibilities of institutions within the EESSI project. The submission sets more stringent deadlines for implementing the connection and finishing the developments than the ones in community regulations. Although this has not been submitted yet, the planning, approval and implementation of the NEFMI AP physical connection is in progress. This connection will be used by OEP to send and receive forms and update the central directory and other components.
The draft of the physical connection is expected to be finalized in March 2011, and implemented after this date. The descriptive technical documentation of the new application will become available in the first half of the year.

In order to prepare for and join the EESSI system, outstanding questions need to be clarified and funds need to be allocated, which can be considerably enhanced by the aforementioned submission.

C. Hungarian State Treasury (Magyar Államkincstár)

According to our plans, MÁK will connect to the AP through the TÉBA program's **Web Service** (Adaptor) interface, and WEBIC will only be used at the beginning of the testing phase and in potential disaster situations. The development of the **TÉBA – EESSI** external interface starts in March 2011, and is expected to be finished by the end of the year.

EESSI High-level Architecture



Source: European Commission

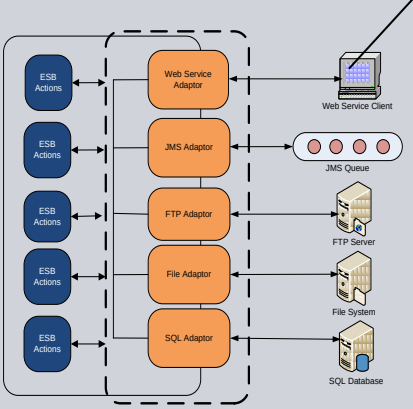
HU EKG

Magyar Állam-kincstár TÉBA (nemzeti alkal-mazás)

Communication - Adaptors

EESSI ICD2

- ✓ In all Message Exchange Scenarios communication is performed via the EMD Adaptors.
- ✓ The adaptors provide for exchange of messages via:
  - ✓ Web Services
  - ✓ Files
  - ✓ FTP
  - ✓ JMS
  - ✓ SQL
- ✓ Adaptors can be customised by defining their properties in the `META-INF/jboss-ejb.xml` file of the ESB application.



TÉBA– EESSI külső interfész

The reason for this decision is the fact that 3 organizational units of MÁK are involved with the tasks, and the expected traffic is about 10,000 messages/month (estimated value).

Ongoing EU development – TÉBA project

The IT Service Centre of the Ministry of Finance (Pénzügyminisztérium Informatikai Szolgáltató Központ – PMISZK) called for a tender within the framework of EKOP-1.2.6-2008-0001 („The modernization of the payment of family benefits – TÉBA project"). The winner of the tender started IT development of the new system (including the new family benefits system of the Treasury) on 12 March 2010. The development includes the implementation of the necessary system requirements, so the new system used by the Treasury will be capable of receiving and sending data through SED forms in electronic format. This is part of the project, so there are no special hardware, software or cost requirements.

The technical documentation of the TÉBA project will include support for the electronic communications required from 2012, i.e. the functional structure of TÉBA includes support for data exchange.

The advantage of this approach is that electronic documents can be created using basic data stored in TÉBA, and their information are processed directly within TÉBA, making administration easier.
The TÉBA project is expected to be finished in September 2011.

A risk related to the implementation of electronic data exchange in the case of MÁK is the delay of information needed by the developer, therefore the Treasury is forced to provide information based on incomplete or not final documentation, and modifying these later might prove to require considerable extra effort.

D. National Employment Service (Nemzeti Foglalkoztatási Szolgálat – NFSZ)

The IT system of NFSZ is a thick-client, three-layer application implemented using a central database and an application server. Different functions of the system are used by all agencies and counties (about 3000 jobs). Earlier, the management of e-forms, as well as related functionality was implemented in this system.

1.1. Finished and in-progress developments for EESSI

The first step of EESSI migration was the analysis of applicable legislation. Later, when SEDs were published, they were analysed and mapped too. Based on these, we decided to include the management functions of the most common forms to make administrative tasks easier. We identified the most common forms, and included these in the integrated IT system. Management capabilities for the following forms have been added so far:

- U010 (conditions affecting entitlement – export)
- U011 (effects on entitlement - export)
- U013 (monthly supervision)
- U2 (maintaining entitlement for redundancy pay)
- U3 (conditions affecting entitlement for redundancy pay)
- U001 (insurance data)
- U003 (payment data)

The above forms are linked to the database containing individual data and insurance periods. These functions are currently live, i.e. they are available to administrators. The planning of the new system also began, with the matching of the identified data packages as the first step. A list of requirements was compiled defining the basic parameters of the system for the management of migrant workers.

Current laws state that we need to be able to provide the information relating to reimbursement; therefore we had to perform basic developments in the autumn of 2010 to comply with these obligations.

Considering the IT system of NFSZ and its operation, the basic concept was that the support for electronic data exchange has to work within the organization's own system. The use of WebIC cannot be a fundamental goal, as it was considered only as an „escape route".

Based on the above considerations, we decided that a new system needed to be build with support for all necessary functions.

The requirement specifications of the new system has already been completed. Currently, the logical system plan is being created. External factors are also considered (e.g. level of preparedness of the Hungarian AP and the central system). Therefore, certain parts of the system plan cannot be fully worked out, as external factors have to be taken into account when defining the development schedule.

The system for the management of migrant workers is basically a separate package, but closely linked to other parts of NFSZ. A few of the important systems: ETALON system for the management of basic personal data, benefits and job search module of the Integrated System.

Management of migrant workers will be supported through thin-client web-based technology. The program has to be available all over the country, as any one of the 169 branches and the 20 counties might be entitled for activities related to migrant workers. Processing the technical documentation necessary for system development is also in progress.

Developments started last year in the area of reimbursement management are continued to provide enhanced support for administrators.

1.2. Upcoming tasks

The planning stage is soon over, and specific development tasks will begin. It is important to keep in pace with the development of the Hungarian AP, at least in related areas. Therefore, in the first phase we are going to implement the functions that can be created without connecting to the AP, and the functions requiring a connection will come next, with appropriate scheduling.

As stated above, the first stage will be the implementation of data scopes, and the creation of the functional system related to these. The next stage will be the implementation of the (connection dependent) data package, flow and messaging features and the development of synchronization modules. Users and administrators need to be properly trained to use the new functions. Further developments are possible based on experiences and feedback in this stage.

The next phase is testing, troubleshooting, and creating other, non-vital functions. Examples include: lists supporting the work of administrators, queries, logs and the statistics module. The plan is to have a basically operable system by 31 December 2011 to provide all necessary functions and connection to the EESSI system. This way, the last modifications can be finished by 1 May 2012, and the system can be properly implemented by this date.

The current status of the project (considering the circumstances) is „moderately prepared". We expect to be able to finish the targeted tasks by the deadline and to comply with applicable regulations.

3. The actual experience

(testing, productive background)

We do not have yet any valuable experience in this field.

4. The Actual risks identified

4.1 At the European level

As we see now, the EESSI project at the Commission level shall be ready on time but certain critical points have been identified. The relevant technical documents including EESSI functionalities are to be completed and their content must be finalised in order they could be used to develop the national IT systems. The time-frame factor at Community level and the lack of reliable information on the national preparations might be overcome.

4.2 At the National level

The most critical point at national level is the lack of budgetary resources which can be used for the smooth preparation. Taking into account the budgetary restrictions at national level affecting also the IT developments in the social security sector we have to prepare for the temporary use of WebIC which cannot be considered as desirable.

4.3 At the particular AP level

Same as under point 4.2 and as described in the previous sections.

5. Problems to be solved in the concrete time horizon

(schedule)

The concrete time horizon shall be determined by the Government in April. As we foresee now, by the end of 2011 all sectors are to be prepared for bilateral testing in one way or another.

5.1 For informing the partners

-

5.2 For discussion

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5.3 For discussion and accepting of the recommendation within the project framework

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6. Attachements

(according to the authors´reflexion)