SAP – Challenges in submission and preserving data electronically for legal purposes

Venkat Akkiraju

Author(s)	
Venkat Akkiraju	
Degree programme	
Business Information Technology	

Report/thesis title	Number of pages
SAP – Challenges in submission and preserving data electronically for legal purposes	**and appendix pages** **24**

Electronic handling of data, globally, by businesses and the legal authorities in different countries, has led to development of new kind of solutions. Of all the requirements, in finance area tax compliance and audit requirement are the most important.

Tax legislations in various countries are introducing electronic submission of tax returns, known as Standard Audit File for Tax (SAF-T). Companies develop systems that comply with SAF-T format.

Due to large volume of business data, electronically preserving the financial information is also needed. This is the cost-effective way of preserving the records for audit purpose. Data must be stored for a minimum of 8 years. Audit process is also now carried out electronically. And audit firms brought out methodologies so that they can perform audits faster. In this process, archiving of the data periodically becomes very important.

The objective of this paper is to provide an overview of SAF-T and Archiving processes that companies develop. This paper analyses the challenges of implementing and adopting SAF-T, Archiving processes to comply with changing legislations with specific case studies.

Keywords
SAF-T, Archiving, Auditing, VAT, DART, ERP

Table of contents

Table of Figures

Abbreviations

SAF-T	Standard Audit file for TAX
ERP	Enterprise Recourse Planning
DART	Data Retention Tool
VAT	Value Added Tac
EDI	Electronic Data Interchange
GDPdU	Grundsätze zum Datenzugriff und zur Prüfbarkeit digitaler Unterlagen

1   Introduction

All businesses, irrespective of their size, whether it may be local, national, multinational, multibillion-euro company, need to submit accounting data to a national tax authority or external auditors.

There is also a need for companies to store data, primarily accounting data, so that the data can be provided to the government when needed. This accounting data is crucial to maintain and submit as tax departments face increasing demand to operate more effectively. Solutions for tax reporting obligations vary from country to country.

Globalisation of economy, including the emergence of electronic commerce, has created a new environment in which countries have created several legislative requirements for the companies to comply. Countries also see an increased need for international cooperation through the exchange of information for an appropriate auditing process.

For the last 2 decades, electronic means of data transfer has been an important part of the trade. As days goes by, many countries are adopting full-fledged electronic processes as a means of reporting to enable smooth transmission of data.

Emerging markets are also causing increase in data volumes. This is necessitating companies to archive and preserve data. Archiving process is no longer seen as optional aspect but rather as core aspect enterprise data management. According to Digital University study, by 2020 there will be a full 50-fold growth of data, that is about 40 zettabytes (John Gantz and David Reinsel, 2010).

Multinational companies using SAP ERP system, or ERP systems in general, need to constantly update/change system solutions to meet with legal requirements. Archiving and electronic reporting solutions, strategies, methodologies, constantly must be developed to keep up with the changing legislation and advances in business processes. The challenges in these aspects are discussed in this study.

1.1 Motivation and methodologies for the research

As an aspiring business consultant for financial IT aspects, I have chosen to work with SAP financials. While researching "SAP Financials", I came across some information regarding the Standard Audit File for Tax (SAF-T) by Organization for Economic Co-operation and development (OECD) and recent legal developments in data preservation practices electronically

Since these topics are related to both accounting and IT system aspects, I chose to study further on the challenges in adoption of these solutions for SAF-T and Archiving. Large companies in majority are using SAP as ERP. Since I preferred to take up career in SAP, I chose to study the challenges that companies using SAP face in these topics.

This topic appears to me as very practical and technical. The research methods I used are web research, publications Interaction with Internship workplace resources. My workplace helped me to gather information on solutions that SAP developed/developing for SAF-T and Archiving

1.2 Scope

The reasoning behind this thesis is not to create something new, but rather to bring pre-existing rules and methodologies into the perspective of broader audience. The aim is to provide an overview of the methodologies integrated into SAP ERP system.

Every change in the system to comply with legal requirements brings new challenges. The main question addressed is to identify the challenges in submitting and in preserving data electronically for legal purposes.

From the above question, below questions arise and form the scope of this study
1. Which are the country & company specific requirements for adopting SAF-T?
2. What are recent legal notifications for data preservation and storage?
3. What are the SAP solutions for the above?

2 Theoretical foundation

This can be described in three main sections.
- Financial accounting process
- SAP ERP Financials
- VAT System
- Electronic handling of data

Each section is further detailed.

2.1 Financial accounting process

Accounting is as old as money itself. It is the language of business and divides into multiple subsections such as Financial accounting, Management accounting, Auditing, Taxation, Accounting Information Systems.

Financial Accounting records all activities of an organization in monetary terms. This data is presented as Financial Statements, Tax returns to different stakeholders- Accounting Practices and principles are defined with international co-operation.

Generally accepted Accounting principles (GAAP) is standard framework for accounting. There are local GAAPs and International Financial Reporting Standards (IFRS) that mandate as to how the financial statements are to be reported.

2.2 SAP ERP

SAP ERP is a software that was developed to incorporate key business processes. It is part of SAP Business Suite.

This ERP software has multiple modules in it covering different business functions
- Financial Accounting (FI)
- Controlling (CO)
- Sales and Distribution (SD)
- Production Planning (PP)
- Materials Management (MM)
- Quality Management (QM)
- Human Capital Management (HCM)

FI module is an important module in SAP. It is integrated with all other modules. All the processes end in FI, meaning business transaction is recorded in money terms. FI module enables us to manage financial accounting data within international framework of multiple companies and currencies. It module deals with

- General Ledger accounting
- Accounts Receivable and Payable
- Inventory Management
- Asset Management
- Tax Reporting
- Financial Information system

Legislative changes directly impact FI module aspects. SAP ERP is part of my curriculum. SAP is used as a tool to understand business processes.

2.3   VAT System

 Value Added Tax (VAT) is essentially a charge that is imposed upon goods and services In the 1960s, there were less than 10 countries using VAT, today 166 countries have adopted VAT (OECD,2016).
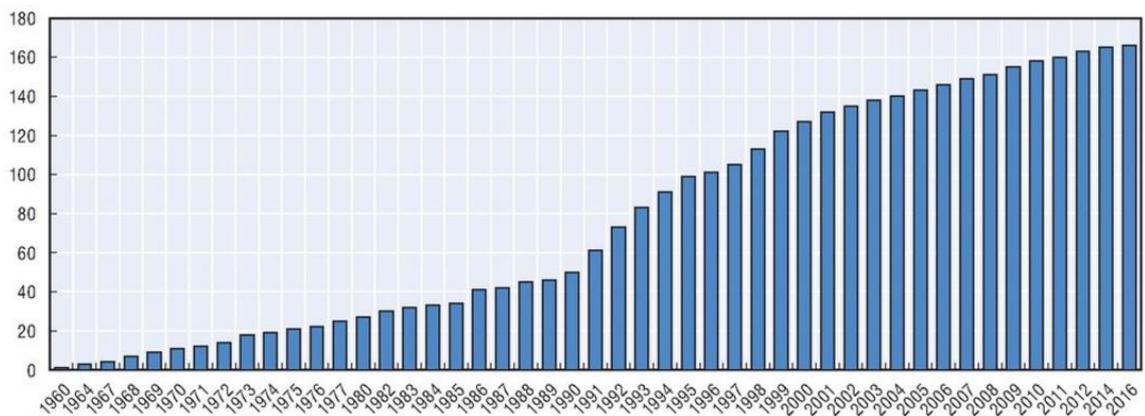
Source: F. Annacondia, International – Overview of General Turnover Taxes and Tax Rates, 27 International VAT Monitor 2 (2016), Journals IBFD.

Figure 1 Consumption Tax trends, VAT Spread: X axis – Years, Y axis – Number of countries adopting VAT

According to European Commission VAT in the European Union is a general, broadly based consumption tax assessed on the value added to goods and services. It applies to all goods and services that are bought and sold for use or consumption in the European Union. Thus, goods which are sold for export or services which are sold to customers abroad are normally not subject to VAT. Conversely imports are taxed to keep the system

fair for EU producers so that they can compete on equal terms on the European market with suppliers situated outside the Union." (European Commission, 2017). EU VAT is an important aspect of European Union. It represents and single market ideology.

VAT consists of two types of taxes, General tax and Consumption tax. General tax is applied to all commercial activities such and production and distribution, while Consumption tax is applied on spending on goods and services.

VAT related business transactions are to be reported to tax offices periodically. In some countries every month, in some instantly. SAP ERP has robust country specific tax reporting tools for such reporting electronically or otherwise.

2.4   Electronic Handling of Data

Electronic Handling of data includes three aspects –
- Recording primary data
- Preparation in reportable format
- Transmission and Preservation of data.

This study is to cover Preparation in reportable format for VAT system and Preservation of data for audit.

Globally, many countries introduced electronic submission of VAT reporting. This E-submission has changed the way organizations conduct business. EDI or electronic data interchange has become a standard internationally. At its core, EDI is exchange of documents such as invoices in a standard E-format mostly XML. It has helped improve commerce between trading partners while reducing costs, shorten business cycle, improve data security and is also environment friendly.

As businesses grow, database size also increases. And it has cost impact. To reduce that and to preserve large volumes of data companies must find solutions. SAP has Archiving concept where data is stored as files. These files are accessed for auditing. Financial data must be preserved for several years or decades as per legal stipulations. Hence preservation of data electronically has high importance in today's data management.

3 EU SAF-T and Challenges

3.1 SAF-T

As many countries try to be more efficient with tax data, the need for efficient system to comply with tax legislation is of high priority for business. One of the key principles that OECD and GASBAS have is that the auditors should be able to access the accounting data easily and be in a format that the revenue bodies can read through.

In May 2005 the OECD committee has published first version SAF-T 1.0, followed by SAF-T 2.0 with some additions to 1.0. What SAF-T essentially is that it's a principle, set methodologies that countries could use for effective processing of accounting data.

SAF-T has become a worldwide trend per Phenix Consulting.
- Singapore is encouraging businesses to adopt the SAF-T standards
- Obligations already exist in Austria, Canada, France, Luxembourg and Portugal
- Brazil can request a business to hand over all its electronic financial records for scrutiny
- In Belgium, Croatia, Finland, Germany, Lithuania, Malta, Spain, Slovak Republic, Slovenia, and UK discussions about SAF-T are taking place
- Sweden and Netherlands have their own 'e-audit file' standard
- Germany also has the Electronic Tax Balance Sheet (EBS) which is comparable to SAF-T. The transmission of the Electronic Tax Balance Sheet is obligatory for all companies in Germany since fiscal year 2013. From January 1, 2014, it is mandatory to file all tax balances electronically
- From 1 January 2016, registered businesses in the Czech Republic will be required to file a new VAT return which will have details of each taxable transaction made with other Czech registered business. The Slovak Republic and Hungary have also introduced similar VAT filing requirements in order to prevent VAT fraud" (Phenix, 2015)

Most of these countries may not completely adopt SAF-T as a whole but, they are pushing forward the E-submission methods.

A general-purpose description of SAF-T Norway is as below.
- Serve as an export format for accounting data after request from the Norwegian Tax Administration, public accountants and other parties.

- Serve as archiving format for the necessary accounting data for those who are obliged to keep accounts as stated in the Norwegian bookkeeping legislation.
- Serve as a format for moving data when changing accounting software.
- Serve as a format for moving data from accounting software to other financial systems such as year-end closing systems, tax computation systems, business intelligence software, advisory systems etc" (Norway administration, 2016).

SAF-T files or messages are sent by either uploading XML files to Tax Office web locations or by web service.

3.2 SAF-T Format

While the SAF-T file has been set in XML format, data format should be represented within the boundaries of local tax regulations. Apart from representing the local regulations, it should meet with international standards. This only applies to the businesses that have transactions in international market.

The current XML format only represents a layout for further developing up on the structure. Although the standard format can be used, due to many local regulations, varying from country to country, the format keeps changing. Multinational companies have to adopt and apply software changes to comply with the local legislations. SAP is accordingly releasing country versions. Further analysis of this issue will be examined in the challenges in adopting SAF-T

Elements	Complex types	Simple types
AuditFile	AddressStructure	ISOCountryCode
	AmountStructure	ISOCurrencyCode
	AnalysisStructure	SAFcodeType
	BankAccountStructure	SAFexchangerateType
	CompanyHeaderStructure	SAFlongtextType
	CompanyStructure	SAFmiddle1textType
	ContactHeaderStructure	SAFmiddle2textType
	ContactInformationStructure	SAFmonetaryType
	HeaderStructure	SAFquantityType
	InvoiceStructure	SAFshorttextType
	PersonNameStructure	SAFweightType
	SelectionCriteriaStructure	
	ShippingPointStructure	
	TaxIDStructure	
	TaxInformationStructure	

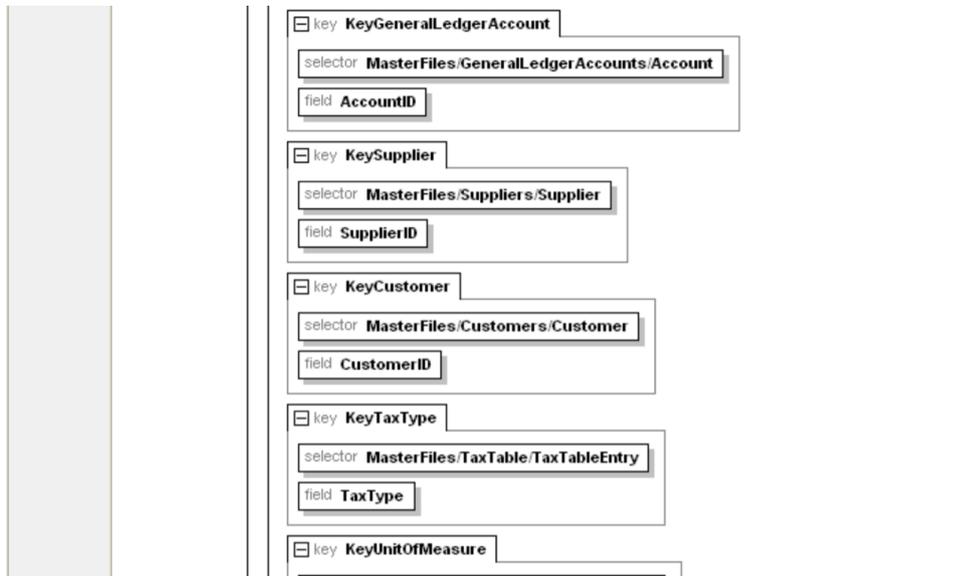Figure 2 Standard SAF-T file overview taken from OECD

Figure 3 A screenshot of the standard file format provided by OECD for SAF-T

Recent XML format for Portugal gives an idea of the file structure.

3.3 Audit uses of SAF-T

As mentioned previously the main purpose of SAF-T is to ensure that auditors and revenue bodies will be able to access tax relevant accounting data easily. SAF-T allows the revenue bodies to ensure that businesses have properly authorised and correctly recorded business data.

As nations are stepping into computerised audit methods, SAF-T methodology increases efficiency of audit coverage due to standardization.

Auditors develop their own software to scrutinize SAF-T data and to reconcile with accounts quickly.

3.4 Challenges in adopting SAF-T

3.4.1 During Implementation

There are 4 main principles set by OECD for countries to consider while implementing SAF-T.

- The Standard Audit File Schemas have been designed as an international standard to reflect current best practice. The OECD specification is considered to be the

8

minimum necessary to extract meaningful information from a business accounting system. Therefore, any implementation of the SAF-T or SAF-P should be compatible with the OECD model.

- Revenue bodies should bear in mind that any significant deviations from the OECD schema may place a corresponding burden on international software developers.
- Flexibility has been built into the Standard Audit File schemas to allow revenue bodies to adapt the schema to suit local needs. Thus, a national implementation of the Standard Audit may be compatible with the Standard Audit File schema without being identical
- The mechanisms by which flexibility has been built into the schemas are described" in the paper (OECD, 2010)

Based on the above countries can implement their own version of SAF-T. These versions vary significantly from country to country. This causes challenges to companies doing business in multiple countries.

Below aspects are important for SAFT-T solution development.
- Data Preparation (extraction)
- XML Generation
- Transmission
- Data quality meeting design requirements

SAP solutions are not uniform for all countries. For some countries, SAP gives end to end solution and for some countries partial solution. Solution base is also similar. So, same company must adopt different solutions. Lack of standardization causes additional costs to companies, for building, maintaining and training for different solutions.

Short notice of changes by revenue bodies and late release of solution by SAP also cause problems for timely implementation resulting in penalties.

3.4.2 Case 1 - Portugal SAF-T

Portugal was one of the first countries to adopt SAF-T. Back in 2008 Portugal implemented SAF-T as a mandatory supply of data in periodic audit. Portugal used the standard XML file format. Below are the requirements that government needed the companies required to comply with. As listed below the changes the country made to the requirements.
- In 2007, mandatory for supplying data for periodic audit, the following data

- o 1 – Header
- o 2 – General Ledger [Structure showing the accounts codes]
- o 2.2 – Customer [Structure showing the customers]
- o 2.3 – Supplier [Structure showing the suppliers]
-    2.4 – Product [Structure showing products and services]
- o 2.5 – Tax table [Structure showing the taxes]
- o 3 – General Ledger Entries [Transactions entries]
- o 4 – Source Documents [Structure showing commercial documents]

- In 2013, with mandatory monthly supply of all sales, only the following data

  - o 1 – Header
  - o   2.2 – Customer [table showing the customers]
  - o   2.5 – Tax Table [table showing the taxes]
  - o   4 – Source Documents [table showing commercial documents

Figure 4 SAF-T File format overview

Tax department in Portugal has many ways to carry out the procedures. While small scale businesses and taxpayers can record invoice data manually using the E-Fatura portal, multi-national countries can generate the XML file.

In the last decade, Portugal made three different changes, latest being in 2017, in its SAF-T submission format and this has impacted many companies locally and internationally in development effort to adopt to the change. Not only that companies need to adopt to the format but also need to come up with digital signature on all the invoices issued. This signature is also to be captured into the XML file.

There are mainly two challenges that companies face when dealing with Portugal and its legal requirements - Communication and Changes to themselves.

Multinational companies face issues with proper communication with Portuguese authorities. Communication is key to create localized solution in a short period.

SAP Solution Portugal

As the Portuguese government changed many rules to its SAF-T, SAP had make changes to comply with the legislation. When SAF-T was implemented in 2007, SAP created a solution SAF-T Report RSAF-T_PT_XML that works with Data Retention Tool (DART) and Data Medium Exchange (DME). Many other processes were integrated with this solution.

With increase in requirements, DART was found to be rigid. During 2014, SAP introduced new solution with report RPFIEU_SAF-T. Design is different and SAP ABAP transformation tool is used.

SAP changes are notified via OSS Notes. Note number for the Portugal solution placed in Appendix 1.

Very recently Portugal regulations changed effective from July 1, 2017. SAP is working on new solution upgrading the existing report.

Due to such frequent design changes, old solutions needed to be reworked completely. Although the previous solution was still in place with most of the clients using SAP ERP, new solution was introduced. Once the new solution was live, maintenance and support for previous solution were discontinued.

For small companies switching to new programme is relatively easy. But major corporations like ABB, Ericsson, Nokia, Neste operating in several countries this kind of switching is problematic due to complex system setups.
Areas of concern in this case are as below.
- Additional IT Build and Concepting costs
- Training costs for users
- Change management issues
- Poor maintenance support due newness of solution

3.4.3 Case 2 - Spain SAF-T

By July 1^{st,} 2017, Spain will be adopting new model SAF-T ideology. Their system is called Suministro Inmediato de Información (Immediate supply of information) or SII. This system is mandatory for all tax payers.

VAT taxpayers that must file monthly returns will be required to adopt the SII, including taxpayers that have signed-up for the monthly VAT refund registry (REDEME), large enterprises (those with annual turnover over EUR 6 million) and VAT groups. Other taxpayers may elect to use the SII (Deloitte,2016). This decision was taken back in DEC 2nd, 2016

This is a completely different setup. Companies must submit different ledgers every 4th or 8th day or on designated times to tax offices.

- Invoices Issued
- Invoices Received
- Capital Assets
- Specific Intra-Company Transactions
- Collections in Cash

The structure of these messages shall consist of a standard header with information on the owner of each ledger, before including a block with invoice details. Whenever these are submitted, messages are returned synchronously by giving response whether message is Fully Accepted or Partially Accepted or Rejected. This is a complex new system. It is a challenge to conceptualize and implement solutions.

Introduction of this kind of system by revenue bodies puts pressure on companies in compliance. IT solution implementation is much more problematic than in case of Portugal though both are SAF-T.

SAP Solution Spain

Very recently SAP released its solution. It is based on eDocument Framework(SAP). Both end to end and partial solutions are offered.
Partial Solution design is as below
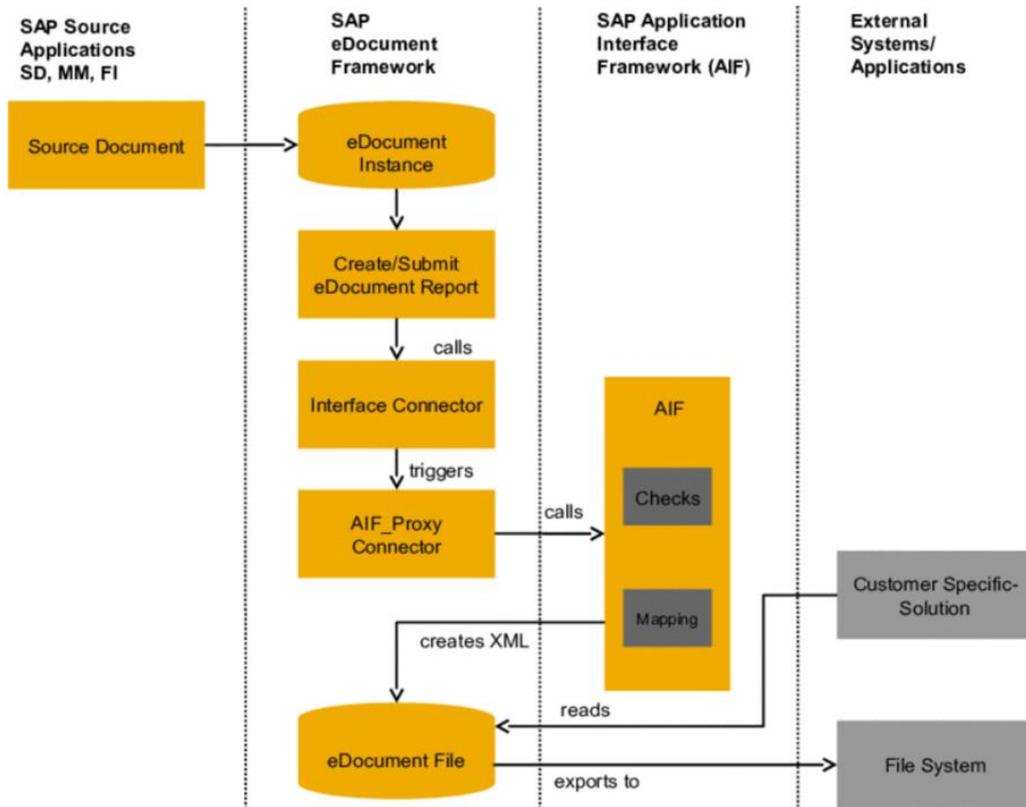
Figure 5 Process overview

End to End solution design is as below.
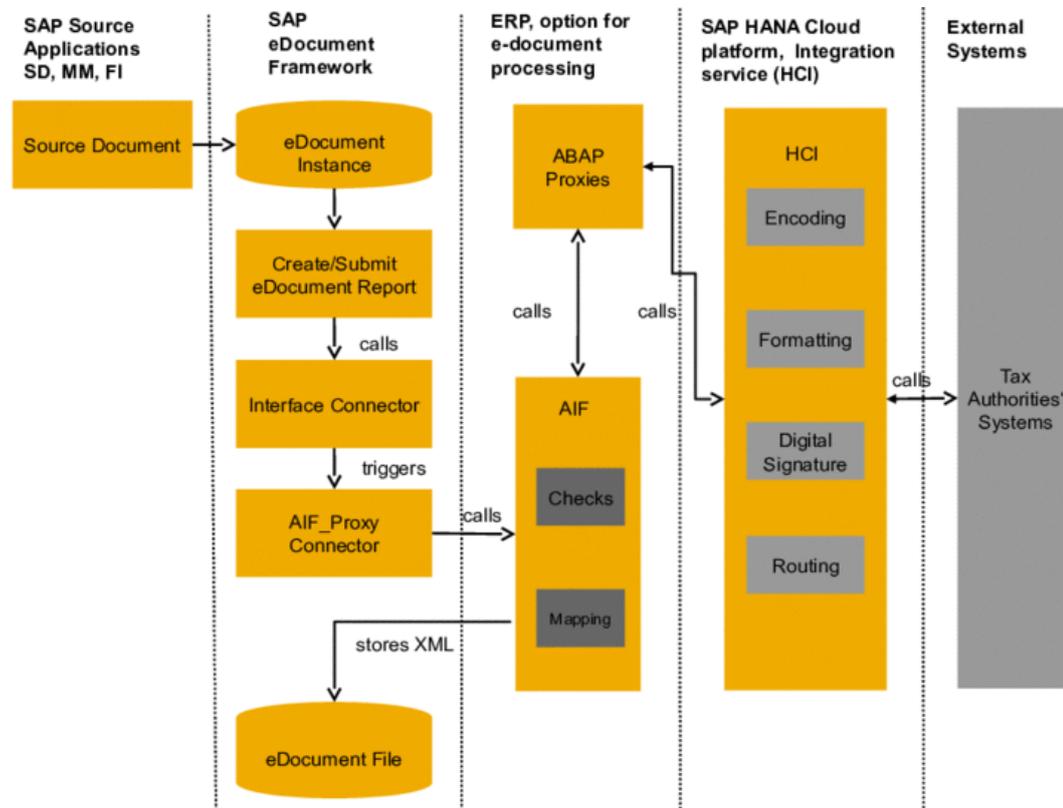
Figure 6 End to End Solution

Spain is a good example of SAF-T challenges. As we can see in both variation there are several factors which complicate delivery or implementation of the solution.
As in case of Portugal, here also companies face challenges in larger proportion.

- SAP Licensing costs
- SAP Service Pack Upgrade costs
- Additional IT infrastructure costs
- IT Build and Concepting costs
- Training costs for users
- Change management issues
- Poor maintenance support due newness of solution

4 Archiving in SAP ERP and Challenges

4.1 Basic principles

Archiving data is no longer viewed as separate data management but seen as fundamental aspect of information management. Due to increase of data in the last couple decades, archiving data is viewed as standard in most ERP systems. The same goes for SAP ERP. The benefits of archiving in SAP ERP can be found in four aspects,

- System Availability
- Resource Usage
- Response times
- Legal compliance

As mentioned earlier, increase in size of data directly impacts the resources. There cannot be delays in system availability. If this situation was to occur, the entire business process could come to a halt which causes massive damage to the company.

Every resource needs to be at its best to perform business processes. Multinational Companies have Terabytes. Rooms of servers, and large amount of processing power is needed. By archiving on regular basis, it takes pressure off the systems.

System response time is strongly influenced by the size of data. The larger the data, the slower the response time, which leads to delayed business processes and wastage of employee time.

When talking about archiving, financial accounting is by far the most important data to archive. FI archiving has special role in aspects of data growth, data security and compliance with legal requirements to preserve data.
Important archiving objects are as below.

- FI Accounting Documents
- Special Purpose Ledger Documents
- Controlling Documents
- COPA Documents
- Profit Centre Accounting Documents
- Logistics Documents

4.2 Adherence to legal requirements

In many countries, data must be available for regular audit and tax audit. One time filing of papers is no more the rule. Data must be preserved for 8 to 10 years. It must be available in electronic form. Certain set of rules are to be followed. Easy access of data is prioritized. Authorities would like to get the data directly from the source system, or access system itself.

The latest trend that countries, at-least in EU, the data to be submitted in electronic formats. For example, in Germany since 2002 all companies operating within legal boundaries are required to submit data electronically.

Other countries in EU are catching up to this trend. Although there are advantages in this, there are some challenges with this kind of legal legislations. The challenges will be further analysed in later part of the thesis.

Initially data archiving was not designed for audits or to meet some requirements. But the role it plays today with legal compliance has changed the archiving work in the context of Information lifecycle management.

In SAP ERP, compliance management plays curtail role in maintaining data and in conducting business transactions with legal requirements.

In SAP ERP, below topics are relevant for preserving data are available
- Data Retention Tool (DART)
- Archiving
- Optical Archiving
- Storage Options

4.3 DART

Data retention tool or DART is a standard function since SAP ERP R/3 4. It is, as title implies, a data extraction tool that enables users to extract data segments that are relevant.

DART makes sure that users can meet legal requirements in data extracting and transfer in audit purposes. As we speak of auditing, since electronic auditing process keeps changing from time to time, DART keeps changing along with it. For example, after the

introduction of GDPDU (Grundsätze zum Datenzugriff und zur Prüfbarkeit digitaler Unter-lagen), German rules for the storage of digital documents, in 2015 SAP had to implement changes to ensure that DART complies with GDPDU (Wikipedia, 2010).

When extracting data, DART combines two kinds of data, Transaction data and Master data. The picture below summarises how the interaction between the database and the viewer works.
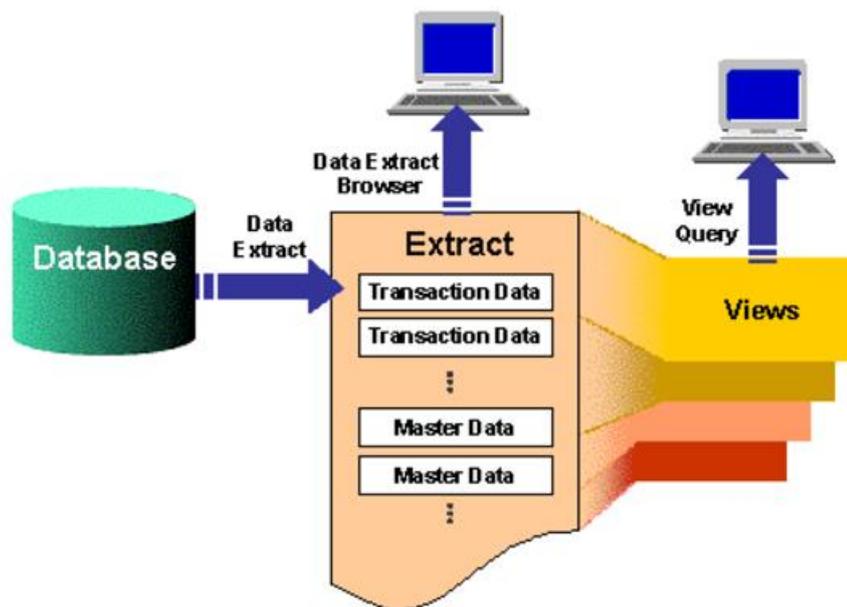
Figure 7 SAP DART Interaction (SAP)

However, DART does not reduce database size. Data remains in the system.
This solution is more useful for below situations.

- Where submission of data by file is accepted and no access is immediately sought
- Where data is physically sought to be present within geographical boundaries of the country. In India, there is a recent legislative stipulation to keep that available within the country.

Multinational companies or companies which use cloud services for their systems face the below challenges.

- Additional IT infrastructure costs
- Additional HR resource requirements for DART process

4.4   Archiving

SAP has several programmes for archiving different documents. It is a robust system. There are many cross-checks carried out on objects' status. Archiving of different objects must be done in sequential order. And redundant and incorrectly setup data will block the process. Additionally, archiving of Finance related documents need approval from stake-holders. This requires additional process steps.

For large corporates working with several SAP instances and locations face challenges in timely archiving.

- Approval process delays
- Inconsistent data in logistics documents
- Missing Master data
- Lack of proper IT resources

These challenges delay the process which will delay IT cost reduction.

4.5   Optical archiving

When talking about data archiving in SAP, it is worth mentioning Optical archiving. In words of SAP themselves, "The term "optical archiving" refers to the electronic storage and administration of documents on storage systems outside SAP Business Suite. Documents stored in this way include:

- Scanned-in original documents, such as incoming invoices
- Outgoing documents, such as invoices created in SAP ERP Financials that are created electronically, then sent in printed form
- Print lists created in the SAP Business Suite"

This has   become a mandatory process since several communications of Invoicing, these days come with attachments. Such attachments are also required to be preserved. Companies face routine challenges of IT management and no additional issues specific to SAP are expected.

4.6   Storage options

After Extracting a file, it can either be stored in server, or as a file format in the local hardware. There are pros and cons on both sides. No matter what approach is used, there is no perfect solution that fulfils all the criteria.

As per Helmut Stefani, in the book Archiving your SAP data, there are 5 criteria identified.

- Security
- Costs
- Integration
- Access options
- Lifecycle of the storage option

Security the key aspect of data archiving. Companies ask themselves three main questions

- How secure is the storage path?
- How secure is the storage itself?
- Which security options does the storage system provide? (Helmut Stefani,2007)

These questions concern the entire process, from creating the files to final storage. This process cost companies a lot. Purchasing costs and operational costs need to considerable. If operation cost exceeds the projection in the long term, it gets difficult to maintain them.

SAP provides various types of maintenance packages that help the companies to set up right IT landscape. But important thing here is when thinking about IT landscape, integration between systems is key. Making sure that the existing IT structure integrate with storage system is important. It must fit in.

There are three storage options in use.

- Storage in a certified storage system
- Using a hierarchical storage management system
- Using existing storage media

In this case also challenges of IT management are routine and no additional issues specific to SAP are expected.

5 Conclusion

Broadly the challenges can be listed as below.

- Additional IT Costs and Concepting costs
- Change management and resource related costs / issues
- SAP Licensing and Service Pack Upgrade costs
- Data quality

Solution implementation must consider and evaluate different options carefully before starting the real work. Sometimes non-sap solutions may be easy to implement. I refer below an analysis by a consulting company called Key-Group.

Key-Group has suggested 3 possible solutions that do not involve SAP directly for creating a SAF-T file for companies using SAP ERP

- Internal Tool solution
- 3rd party SQL cloud solution
- 3rd party Excel solution ((key group, 2013))

Each of the alternatives are to be analysed in detail *vis-a-vis* SAP solution during project start phase.

In the end, whatever the solution might be, compliance with legal obligations is the key. SAF-T is a complicated and SAP ERP does not completely match end to end with SAF-T.

Similarly archiving process calls for improved data quality. This could also lead process changes. These aspects are also to be considered.

To make successful implementation of this kind of solution, companies shall focus on the below.

- Business Process evaluation
- Detailed concepting
- Proper designing and implementation
- Well defined Project management methodology

6   Reference

THE DIGITAL UNIVERSE IN 2020: Big Data, Bigger Digital Shadows, and Biggest Growth in the Far East research URL https://www.emc.com/collateral/analyst-reports/idc-the-digital-universe-in-2020.pdf (John Gantz and David Reinsel, 2010)

Consumption Tax Trends by OECD URL http://www.keepeek.com/Digital-Asset-Management/oecd/taxation/consumption-tax-trends-2016_ctt-2016-en#.WRCSvOWGO3A#page3 (OECD,2016)

What is VAT by European Commission URL http://ec.europa.eu/taxation_customs/business/vat/what-is-vat_en (European Commission, 2017)

STANDARD AUDIT FILE FOR TAX PURPOSES (SAF-T) overview by Phenix Group URL http://globalindirecttaxmanagement.com/thought-leadership-publications/building-blocks-of-a-vat-control-framework/elements-of-gst-control-framework-singapore/28-phenix-consulting/179-standard-audit-file-for-tax-purposes-saf-t.html (Phenix, 2015)

Norwegian SAF-T Financial data URL http://www.skatteetaten.no/globalassets/standard-format-regnskapsaf-t/norwegian-saf-t-financial-data---documentation.pdf (Norway administration, 2016).

Guidance for the Standard Audit File - Tax, Version 2.0: Appendix B: SAF-T Schema version 2.00 URL https://www.oecd.org/tax/administration/45167181.pdf (OECD, 2010)

Guidance for the Standard Audit File – Tax Version 2.0 URL http://www.oecd.org/tax/administration/45045602.pdf (OECD, 2010)

Spain Tax Alert Measures introduced to raise corporate income tax revenue and tackle VAT fraud URL https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-alert-spain-5-december-2016.pdf (Deloitte,2016)

E-document Framework https://help.sap.com/doc/saphelp_erp60_sp/6.0/en-US/0c/23d55392f04d59e10000000a4450e5/frameset.htm
https://help.sap.com/saphelp_erp60_sp/helpdata/en/f8/36d653bb13af20e10000000a4450e5/content.htm

SAP DART

https://help.sap.com/saphelp_erp60_sp/helpdata/en/6f/96c2531bb9b44ce10000000a174cb4/content.htm

https://help.sap.com/saphelp_globext607_10/helpdata/en/3b/162b97c35511d1801b00c04fada2a1/content.htm

Grundsätze zum Datenzugriff und zur Prüfbarkeit digitaler Unterlagen (GDPdU)

https://de.wikipedia.org/wiki/Grunds%C3%A4tze_zum_Datenzugriff_und_zur_Pr%C3%BCfbarkeit_digitaler_Unterlagen (Wikipwdia, 2010)

Optical Archiving

https://help.sap.com/saphelp_nwpi71/helpdata/en/8d/3e4c45462a11d189000000e8323d3a/frameset.htm

Helmut Stefani 2007 Archiving Your SAP DATA 2ND Edition

New SAFT_PT requirement in 2013 https://indirecttaxtechnology.files.wordpress.com/2012/12/SAF-T-pt-analysis.pdf (key group, 2013)

Spain Electronic Data Submission format URL http://www.agenciatributaria.es/static_files/AEAT/Contenidos_Comunes/La_Agencia_Tributaria/Modelos_y_formularios/Suministro_inmediato_informacion/FicherosSuministros/V_07/SII_Descripcion_ServicioWeb_v0.7.pdf

Portugese SAF-T File foramt code URL http://info.portaldasfinancas.gov.pt/apps/saft-pt04/SAFTPT1.04_01.xsd

Appendix 1

SAF-T Sap Notes Portugal

Please find the original document at https://launchpad.support.sap.com/#/notes/1929229

Symptom

With Portaria 321-A/2007 of the Portuguese legislation, published on March 26th by the Portuguese government, a requirement became mandatory as of fiscal year 2008 for all companies that use computerized means to manage their accounting and billing procedures. The obligation consists in producing a file, the so-called SAF-T-PT file, whenever requested by the Tax Authorities for auditing purposes. The same file is used also to fulfil another requirement - the Monthly Invoice Reporting to the Tax Authorities (E-fatura).

The SAP solution for this requirement - SAF-T Report RSAF-T_PT_XML - works with the data retention tool (DART). With the increasing requirements from legal changes, this tool is no longer sufficient to fulfil the task of retrieving the data from the database.

Other Terms

SAF-T, SAF-T-PT, SAF-T-PT, Tax reporting, 160/2013, 321-A/2007, 1192/2009, E-fatura, 382/2012, Portugal, FIEU_SAF-T, RPFIEU_SAF-T, 274/2013

Reason and Prerequisites

Due to limitations of the DART tool and the DMEE a new approach is needed to create SAF-T file.

Solution

- *NOTE UPDATES:*
- 12-Feb-2014: Delivery date added for 4.2-MovementOfGoods and 4.3-Working-Documents
- 24-Feb-2014: Table added for 274/2013, file variants, integrated solutions; dates updated
- 12-Mar-2014: Version 274/2013: Dates updated: 1. Header *available* and 4.1. SalesInvoices *available*
- 18-Mar-2014: Table 4.4 added in Portaria 274/2013 (note 1990492); Maintenance date for RSAF-T_PT_XML changed to 1-Sep-2014; Added Collective Note 1981139

- 11-Apr-2014: Availability date for 4.2. Movement of Goods and 4.3. Working Documents to 30-Apr-2014, integration of SAF-T for FI-CA, IS-U, IS-Media: date maintained.
- 09-May-2014: Availability date for Self-billing and Third Party SAF-T file changed. Availability for Movement of Goods set to available in pilot. Availability for Working Documents set
- 26-Jun-2014: Availability date for Self billing and Third Party SAF-T file revised and changed.
- 25-Aug-2014: Availability date for Self billing file revised and changed. SAF-T file for IS-Media set to "available"
- 30-Sep-2014: Availability date for Self billing file revised and changed; RSAF-T_PT_XML updated information about support; Tax Accounting Basis E updated
- 30-Oct-2014: Availability date for Self billing file revised and changed.
- 26-Nov-2014: Availability date for Movement of Goods file.
- 12-Set-2016: Update about the availability of the remaining solutions (Self billing, Movement of Goods and Industry Solutions)

A new solution to create the SAFT file, the so-called SAFT Framework - RPFIEU_SAFT, has been developed by SAP. Eventually, this report will replace the current SAFT Report - RSAFT_PT_XML. You can see below the current status of the solution in terms of the Portaria and the file variants covered, and furthermore which other SAP solutions are integrated into the framework. The dates indicated here are planned release dates and will be updated here if needed. Please also refer to note 1981139 *SAFT-PT: Collective note for RPFIEU_SAFT for Portugal SAF-T* to see all deliveries for this solution.

A. LEGAL VERSION COVERED:

In the current release, SAFT Framework - Report RPFIEU_SAFT covers the following versions according to the respective Portaria:

Portaria 160/2013 - 1.02_01 version

- **MONTHLY SAFT (*E-fatura*)**

1. Header	*available*
2. Masterfiles	*n/a*
2.2. Customer	*available*
2.5. TaxTable	*available*
4. SourceDocuments	*n/a*
4.1. SalesInvoices	*available*

Figure 8Montly SAF-T

- **ANNUAL SAFT (audit file)**

1. Header	available
2. Masterfiles	n/a

2017-05-03

2.1. GeneralLedger	available
2.2. Customer	available
2.3. Supplier	available
2.4. Product	available
2.5 TaxTable	available
3. GeneralLedgerEntries	available
4. SourceDocuments	n/a
4.1. SalesInvoices	available
4.2. MovementOfGoods	n/a
4.3. WorkingDocuments	n/a

Figure 9 Annual Audit

Portaria 274/2013 - 1.03_01 version

- **MONTHLY SAFT (*E-fatura*)**

1. Header	available
2. Masterfiles	n/a
2.2. Customer	available
2.5. TaxTable	available
4. SourceDocuments	n/a
4.1. SalesInvoices	available
4.1.4.19.6 Payment	not relevant
4.4. Payments	available

- **ANNUAL SAFT (Audit file)**

1. Header	available
2. Masterfiles	n/a
2.1. GeneralLedger	available
2.2. Customer	available
2.3. Supplier	available
2.4. Product	available
2.5 TaxTable	available
3. GeneralLedgerEntries	available
4. SourceDocuments	n/a
4.1. SalesInvoices	available
4.1.4.19.6 Payment	available
4.2. MovementOfGoods	available

2017-05-03

4.3. WorkingDocuments	available
4.4. Payments	available

Figure 10 New Monthly and Annual SAF-T

Remarks:

The older version, e.g. 1.02_01, becomes automatically obsolete as the subsequent Portaria, e.g. 1.03_01, is available; i.e. all corrections and developments will be realized on the basis of the latest version. The previous Portaria will then be no longer maintained. The *4.3. WorkingDocuments* solution is not a pre-requisite for posterior corrections. it is only relevant for customers needing this feature and can be ignored by those who don't have Working Documents to report.

27

B. FILE VARIANTS COVERED:

In the current release, SAFT Framework - Report RPFIEU_SAFT covers the following file variants, according to TaxAccountingBasis:

C - Accounting	*available*
F - Billing	*available*
I - Integrated Accounting and Billing	*available*
S - Selfbilling	*available*
E - Invoice in name of third party, including transport documents and of conference (b)	*n/a*
P - Parcial Billing data	*available*
R - Receipts (a)	*n/a*
T - Documentos de transporte (a)	*n/a*

(a) applicable for software designed for that particular purpose only

(b) no solution was required for this business scenario

C. OTHER SAP SOLUTIONS INTEGRATED:

In the current release, SAFT Framework - Report RPFIEU_SAFT the following SAP solutions can be integrated:

Solution	available or to be released on	Version	File section(s) affected
Real Estate Flexible (RE-FX)	*available*	*with version 1.03_1*	*relevant for section 4.1 (annual and monthly file)*
IS-Utilities	*available*	*with version 1.03_1*	*relevant for section 4.1, 4.4 (annual and monthly file)*
FI-CA	*available*	*with version 1.03_1*	*relevant for section 4.1, 4.4 (annual and monthly file)*
Convergent Invoicing (CI)	*available*	*with version 1.03_1*	*relevant for section 4.1, 4.4 (annual and monthly file)*
IS-Media	*available*	*with version 1.03_1*	*relevant for section 4.1 (annual and monthly file)*
IS-Oil	*tbd*	*with version 1.03_1*	*relevant for section 4.2 (annual and monthly file)*

D. INFORMATION REGARDING ADOPTION

To allow customers to implement the new solution in a smooth way the current solution (SAFT Report RSAFT_PT_XML) will be maintained in parallel until 01-Set-2014. Then, it will eventually be discontinued from maintenance and replaced by the SAFT Framework - RPFIEU_SAFT report. Enhancements, such as new functionality or legal changes, will be done in the RPFIEU_SAFT report only, while the maintenance of the Report RSAFT_PT_XML will be restricted to bug fixing.

Exception for Selfbilling reporting. The SAFT Report RSAFT_PT_XML will be supported until 31-Dez-2014. Starting October 1st, no support will be provided for report RSAFT_PT_XML, including bug fixing (except the Selfbilling RSAFT_PT_XML solution). SAP recommends that the new solution be adopted by the customers once it has been re-leased. With this solution it is also possible to include archived data from FI and SD in the SAFT file. Before the SAFT Report RSAFT_PT_XML is discontinued, SAP customers will be informed accordingly.

Disclaimer

This message outlines our general product direction and should not be relied on in making a purchase decision. This message is not subject to your license agreement or any other agreement with SAP. SAP has no obligation to pursue any course of business outlined in this message or to develop or release any functionality mentioned in this message. This message and SAP's strategy and possible future developments are subject to change and may be changed by SAP at any time for any reason without notice. The information in this message is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular pur-pose, or non-infringement. SAP assumes no responsibility for errors or omissions in this message, except if such damages were caused by SAP intentionally or grossly negligent.

Other Components

Component	Description
XX-CSC-PT-FI	Financial Accounting

This document refers to

SAP Note/KBA	Title
1981139	SAF-T (PT): Collective note for RPFIEU_SAFT for Portugal
1972297	Documentation for report RPFIEU_SAFT for Portugal
1862600	RPFIEU_SAFT Solution :DDIC Note
1860026	RPFIEU_SAFT Solution : Report Note

This document is referenced by

SAP Note/KBA	Title
1988434	RPFIEU_SAFT: 274/2013 changes in SAF-T file for Portugal
1998217	SAFT(PT) : Movement of Goods as per Portaria 274_2013 (2)/ Section 4.2
1459306	SAFT-PT: Collective Note for SAFT-PT notes
1937556	RPFIEU_SAFT : SAF-T Framework Corrections (1_F)
1860026	RPFIEU_SAFT Solution : Report Note