Within a recent ESRI Microsoft Case Study people are told that all levels of an organization can use the power of GIS while working with a variety of solutions. These solutions take their core data from the same server and/or integrate data from a variety of web services.

There are three concrete examples to illustrate that kind of high sophisticated information management and distribution.

One of them is the Bavarian rural district Cham.
ESRI is a Global Independent Software Vendor and a Gold Certified partner of Microsoft.

ESRI has been supporting Microsoft’s SQL Server with its ArcSDE product since 1996.

There is a large and still growing number of customers that are successfully storing and managing spatial and related attribute data in Microsoft SQL Server.

The Bavarian rural district office of Cham is just one of those customers.

With the implementation of its GIS, Cham has transformed a rural, decentralized regional government administration into a modern enterprise-based service organization.

This was accomplished by optimizing its business processes between the central district administration office and the various municipalities.

There is a small but efficient Public Private Partnership between ESRI, Microsoft and Cham which was the key for this success.
First of all there is some information about the rural district Cham who has fortunately been selected to receive a ESRI SAG award yesterday.

This award is usually given to user sites around the world in recognition of their outstanding work in the GIS field. Our relatively small organization from Germany/Bavaria has fortunately been selected to receive this prize.
The rural district Cham is located in the heart of Europe, …
… in the southeast of Germany

close to Austria, where Arnold Schwarzenegger comes from.

Cham is also close to the annual Oktoberfest in Munich.

So the really important things are nearby 😊
On an area of 1.500 square kilometers there are 39 local authorities with overall about 130,000 inhabitants.

For German circumstances there is a lot of space per person.

With the Czech Republic we have a common frontier of more than 72 kilometers.

*The highest point has an altitude of 1.500 meters over sea level; the lowest Point has about 300.*
The inter communal GIS of the rural district Cham

… a GIS for the district office, municipalities and many more

A major challenge was the necessity to integrate disparate information into an efficient data management system.
This system should have the ability to easily maintain and exchange data within the district.

Solution:

In 2005, Cham implemented an inter-district or inter-communal GIS.
In addition, local public utility companies and other local government agencies agreed to participate in the development of the enterprise GIS.

To make sure that this GIS could meet future, as well as current requirements, the system is based on the ArcGIS family.

ArcInfo and related extensions are used for the collection, maintenance, and analysis of data,
while ArcReader and ArcGIS Server are used to distribute that information across the district’s intranet.
The data is managed with ArcSDE using Microsoft’s SQL Server database management system.
The benefits of the integrated ESRI ArcGIS world

There are four descriptive examples

The next chapter discusses the use and interaction of basic technologies.

There are four descriptive examples.
I. The benefits of a centralized conception

The first example is the approach of a strictly centralized conception.
There has been a communal intranet in Cham since 1996.

Every member of staff - about 600 persons - is connected to this network.

There are various technologies to get some connectivity.

A lot of centralized services prevent the users from hackers, viruses, spam, and many more security relevant things.

There are common gateways to the world wide web and to the Bavarian communication network.
Nearly every member of staff has an ActiveDirectory account.

The privileges are managed by trusted domains.

Within this domains there are several services.

One of the important services are application services via terminal server. There are a lot of terminal server applications, for example ArcReader Maps.
The recent system conception is placed within a very modern centralized IT-infrastructure.

The heart of this conception is a Microsoft SQL-Server 2005 associated with an ArcSDE 9.2.
Thereby all geodata is stored centrally and without any redundancies.

For administrating and editing purposes we are using classical ArcGIS Desktop installations.

For peeking and printing, which are the most user cases, there is a highly sophisticated ArcReader-Citrix environment.

For citizen information purposes an ArcGIS Server WebADF application is still in the process of developing.
In addition several wms and kml web services have been added to connect to Microsoft’s VirtualEarth and to diverse OGC-clients.
For the second example we’ve brought some showcases from overseas with us.

All of them are Citrix Terminal server based applications because our most important approach has been the Terminal server technology so far.
In Germany public administration geodata is normally cadastral based. The Data is measured and collected with an accuracy of a few centimeters all over the country.

So we have to handle thousands and thousands of parcels and buildings via millions of high-precision points, lines and polygons.

• For each parcel there are one or more owners.
• For each residential building there are one or more residents.

These individual-related data has to be protected very well forced by law.
High-precision land register maps …
… with individual symbols for point types and accuracy …
... and dimensions for each measured and calculated object.
Nature conservancy and protected areas data is combined with cadastral maps.
Flood control data shows statistically calculated areas of high water and its deepness.
All areas of hunting and fishing have been mapped in the same precise manner as the cadastral boundaries.
All business parks are registered for business development purposes.
We have been measuring every valve, mounting part and pipe of our water management for years.

This work will take many more years.
Politicians need demographic maps to react to changes in population deployment and deficits of infrastructure.
Citizens, banks and assurances need to know how much parcels would be in case of a sale.

Therefore area statutes are fixed every two years by a rural committee.

These findings are mapped and stored in our GIS.
The third example describes a very new approach with ArcGIS Server.
WebADF applications

This is an extract of our citizen information system based on the ArcGIS Server WebADF in our corporate design.
The base maps are cached.

Functional data is provided live from ArcSDE.
IV. The benefits of the PPP-Model with Microsoft

There are two descriptive examples

The fourth example is actually the main part of this presentation.

It is the view at our PPP-Model with Microsoft.

There are 2 showcases.
The 1st one is our regional tourism approach via VirtualEarth.

And the 2nd one will be held by Dirk Werther from Microsoft Germany.
The tourism association of eastern Bavaria is running a highly sophisticated web GIS based on .NET/ASPX and VirtualEarth.

The major challenge was the necessity to integrate disparate live-information from various databases.

One of these databases is our central geo-database.
There is a lot of tourism data available.
Biking- and hiking maps
- Cycle ways
- Hiking trails
- POI
GIS-routes (network nodes and linear referencing data)
- Cycling
- Hiking
- Skiing
- Nordic walking
- Canoeing, etc.
ArcGIS Server will allow us to serve this data live to this web-GIS portal.
So we have to connect to hotelier- and event-databases as well as to geo-databases.

Semantic data is used via XML and as the case may be via KML. Graphic data can be used as WebMapServices.
Here is a schema of the connection to our geo-database.

We have the role of a service provider.

ArcGIS Server’s projection- and mapping-engines are gathering relevant data within a KML-service and a WMS.

These services will be published to the world wide web via reverse proxy technique.

The implied VirtualEarth application “eContent.M@ps” is the framework for this tourism web portal.
Web application
http://maps.bayerischer-wald.de/

You may have a look at this Website via this link.
Here is a very quick overflight by means of sightseeing.

The dynamic Symbologie depends on the selected scale and on the closeness of the available features.
Bright prospects...
There are webliks for evere feature too.
Bayerischer Wald
Future plans

- Enlarge the **use of ArcGIS Server’s benefits**.
- Improve the **reliability of all components** via **VMWare VirtualCenter** in conjunction with **SAN- and BladeCenter-technologies**.

Now, what are the future plans for our organization's use of GIS technology?

- A really important approach is to use more and more ArcGIS Server’s benefits.
- Another significant improvement will be made by optimizing the reliability of all technical components. This will be realized via **VMWare VirtualCenter** in conjunction with **SAN- and BladeCenter-technologies**.
2nd:

GIS integration in eGovernment workflows

Dirk Werther
Technical Solution Professional Public Sector
Microsoft Germany
dirkw@microsoft.com
so many great GIS out there, but...
Workflow for a notification

- Create a document based on templates
- Integration of various data sources
- Integration of Geo data
- Digital signature
- Digital archive
modern administration workplace

eAkte / DOMEA Document Management
XÖV
OSCI
Virtual Postoffice
Forms service
Public eProcurement
Any Government application

Microsoft

LANDKREIS CHAM
Bayern / Germany
Bescheid über Grundsteuer

Sehr geehrter Herr,

folgendes Objekt erteilt die Festsetzung der Grundsteuer:

Rachalstr. 6, 93410 Cham
Sehr geehrter Herr,

für folgendes Objekt erfolgt die Festsetzung der Grundsteuer:

Ansg. Otto Müller, Rathausstr. 6, 93413 Cham
Sehr geehrter Herr,

folgende Objekt erfolgt die Festlegung der Grundsteuer:

**Objekt**

**Besitzer:** Otto Müller

**Adresse:** Bachstr. 1, 93413 Chiemsee

**Grundbuch:**

**Grundstücksnummer:** 123/1234567

**Laufende Zahl:** 12345

**Kündigungstyp: Đây ist ein Beispiel für eine Kündigungstyp.**

**Teilbetrag zu entrichten:**

<table>
<thead>
<tr>
<th>Teilbetrag</th>
<th>Preis je Jahr</th>
<th>Abzahlung</th>
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<td>45.15</td>
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<tr>
<td>01.01.2024</td>
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<td>01.01</td>
</tr>
</tbody>
</table>

Bitte beachten Sie, dass die Kündigung möglich ist. In Kürze werde ich Ihnen die Kündigungstypen und die Regelungen zur Laufzeit des Grundbuches erklären.

Vorläufige Redaktion.

Sonderermittlung

Grundbuch: Inhalt

Herr Otto Müller

Anschrift:

Bachstr. 1, 93413 Chiemsee

Sehr geehrter Herr,
Zur Information der Finanzämter

Betreff: Neuanmeldungen

Herrn/Onne/Madame,

Dies ist ein Hinweis auf das Überwachungsprogramm der Finanzämter. Die Informationen sind von Bedeutung für alle Betroffenen. Bitte beachten Sie die folgenden Punkte:

1. **Grundpfandverfahren**
   - Die Verfahren werden für alle Objekte durchgeführt, die auf Grundpfandrechte beansprucht werden.
   - Die Objekte sind in den folgenden Bereichen:
     - Wohnimmobilien
     - Gewerbeimmobilien
     - Industrieobjekte

2. **Kündigung der Mietverträge**
   - Die Mietverträge sind kündigungsfähig, abhängig von den Umständen.
   - Die Kündigung kann aufgrund von mangelhafter Pflege oder Nichtbezahlung der Miete erfolgen.

3. **Verfahren der Grundpfändung**
   - Die Grundpfändung verläuft in mehreren Schritten:
     - Erstverfahren
     - Zweitverfahren
     - Drittverfahren

4. **Verwaltungsmaßnahmen**
   - Die Verwaltungsmaßnahmen sind erforderlich, um alle betroffenen Objekte zu kontrollieren.
   - Die Maßnahmen sollen sicherstellen, dass die Objekte ordnungsgemäß verwaltet werden.

Bitte beachten Sie, dass die Informationen in diesem Brief nur als Hinweis und nicht als endgültige Entscheidung angesehen werden. Weitere Details sind im Grundpfandverfahren enthalten.

Mit freundlichen Grüßen,

[Unterschrift]

Datum:

[Datum]
More information

http://www.landkreis-cham.de/

http://www.microsoft.com/virtualearth
http://office.microsoft.com/