



# SWEDISH E-GOV 2010

WHERE IS IT COMING FROM AND WHERE IS IT GOING\*

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## Abstract

The concept of an agency was pioneered in Sweden in 1650. Several of today's agencies are direct descendants from that historical period. Freedom of the press, access to public documents, and a high degree of agency independence, are likewise early Swedish concepts. When discussing e-Gov in Sweden, it is therefore commonplace to make historic references, partly because of Sweden's early introduction of computers into the public sector, and partly because today's practices are often a direct result of policies and laws established decades and sometimes even centuries ago. Forcefully introduced welfare reforms resulted in highly computerized and independent state agencies by 1970. Thirty years later, Sweden was placed solidly as a leading e-Gov nation in international bench markings. The Swedish *definition of e-Gov* is a direct translation of the definition used by the European Union<sup>1</sup>, i.e. as *the use of information and communication technology in public administrations combined with organizational change and new skills in order to improve public services and democratic processes and strengthen support to public policies*.

In 2007, the incoming Government sensed that the Swedish e-Gov saga had to be defended by means of more concerted action by the ministries. Hence the Central Government Offices were provided with an Action Plan for their concerted respective handling of e-Gov issues. At the same time, the traditional system of reliance on support agencies was terminated. Since there is *no central e-Gov office* to implement the Action Plan, the Government appointed an E-delegation to act as a *proxy central e-Gov office*.

The E-delegation was established a year after the birth of the Action Plan. The Delegation has had a number of good ideas, and has gradually become more visible. However, the ideas cannot bridge the fact that for three years there has been no leadership and no coaching in the e-Gov arena, defined by the approximately 300 state agencies and 300 regional and local governments. The Delegation has no power per se, and has to make proposals on decisions which are required to be taken by the Government. The Action Plan talks about agency federation(s), and to this effect the Delegation has proposed that clusters be formed around four lead agencies. The Action Plan has a low (if any) profile with regard to architecture. Unfortunately this has not been challenged by the Delegation. State agencies will largely be able to determine their own processes and architecture. Lead cluster agencies are supposed to produce architecture behavior within their respective clusters. Cross-cluster problems will be dealt with 'as they occur'.

Keywords: e-Government, 3<sup>rd</sup> generation, Sweden, action plan, e-Delegation, federation architecture, agency clusters

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# 1. Traces of the Past

A very important role during the formative Swedish e-Gov era was played by Gunnar Sträng, an ardent welfare democrat. From 1947-1976, he served as the Minister of National Economy, Agriculture, Social Affairs, and last but not least, Finance. He understood that the very ambitious Swedish welfare reforms could not be implemented without the support of computing machinery, and almost single-handedly turned the Swedish Agency for Public Administration into a national administrative computing hub. Thus, it could be said that Gunnar Sträng, de facto, fathered what is today called an e-Gov Action Plan.

Pivotal in the welfare machinery was the establishment of a set of national databases, in particular, citizen name and addresses. As a result, Sweden pioneered the introduction of unique personal identity numbers, and later business enterprise identity numbers. The personal identity number was in turn inherited from Sweden's state church census system, made into law 1686, providing birth, death, marriage, and census records for the country. The church also kept track of movements within Sweden and emigration from Sweden. As a later day corollary, to prevent abuse of personal information, Sweden pioneered the creation of a national Data Inspection Board in 1973.

The Data Inspection Board is a state *Agency*, a concept that matured during Sweden's period as a great power, from 1611 to 1718. Several of today's state agencies were actually created some 350 years ago, and all agencies have inherited a status of independence vis-à-vis their respective ministerial owners. The Central Government – the Government Offices – is actually an agency itself, staffed by approximately 4,600 employees, of whom only about 180 are political appointees. In the case of a new incoming government, only those 180 political appointees are swapped. Otherwise, not a single employee in the state public administration is let go as a result of an election.

The Government Offices in Sweden form a single, integrated and relatively small public authority comprising the Prime Minister's Office, ten ministries and the Office for Administrative Affairs. It is a politically controlled body. The Government determines its policies and sets its priorities. In total there are three levels of the public sector; some 240<sup>†</sup> central government agencies, 21 regional government authorities (county councils) and 290 local government authorities (municipalities). However, this should not be understood as a hierarchy of powers; regional and local government administrations are independent of the Government.

The core of the state machinery is the roughly 240 state agencies large enough to be headed by a Director General. Directors General are appointed for three years and usually with an extension of another three years. The Government supervises the operations of the agencies by issuing appropriation directions and ordinances that contain instructions about what their activities should be for the coming year. These instructions serve as *guidelines*, stating what direction activities should take and what issues should have priority. However, the Government may not determine how the agencies should act in individual cases or how they should apply legislation. Whenever a Minister gets close to stepping over that invisible line of demarcation, the media immediately calls out *Foul! Unconstitutional minister activity!*

State agencies are independently run by Directors General guided by Central Government appropriation directions. To this should be added that the Central

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<sup>†</sup> In 2010 there were 400 central government agencies, several of which were very small and without formal employees.

Government has no formal say whatsoever when it comes to regional (public transportation and health) and local governments (municipalities), respectively. In some regard, however, the central government does direct through appropriation of funds or with enabling legislation.

Under these circumstances, how can a *whole\_of\_government* type of e-Gov service be delivered to Sweden's citizens and industry? For two decades, the attempts have been a combination of:

1. Tailored appropriation directions to key state agencies
2. Tasking support agencies to serve as e-Gov coaches
3. Appointing committees and delegations for advice and actions
4. Appealing for cooperation from Directors General

Agencies themselves are usually very keen in being part of a *whole\_of\_government* services approach, and have jointly and publicly asked to be guided more firmly to that effect. The Swedish National Audit Authority actually concluded in 2004<sup>2</sup> that “*there is no e-Gov coordination*”, and in 2009<sup>3</sup>, “*the Government's e-Identity program does not meet the expectations of the Parliament.*”

Sweden nevertheless has enjoyed an outstanding record in virtually all EU and International benchmarking on the use of ICT in the Public Sector and in Society at-large. A telling example is the latest such benchmarking:

The top ten performers in the Economist's 2010 digital economy rankings<sup>4</sup>:

**1** Sweden **2** Denmark **3** United States **4** Finland **5** Netherlands  
**6** Norway **7** Hong Kong **8** Singapore **9** Australia **10** New Zealand

It is worth noting that the Nordic countries are top performers and very close together here, as in most other such rankings.

*Theodore Roosevelt*, 32nd president of the US, said “Speak softly and carry a big stick; you will go far.” It certainly *looks* like e-Gov results in Sweden can be delivered even without a big stick.

## 2. Three Notable Swedish Innovations that Keep e-Gov on the Agenda

### 2.1. Access to Official Documents

One of the cornerstones of a democratic society is the principle of public access to official documents. The activities of the authorities are as far as possible open to insight. The records of, for example, court sessions and meetings of decision-making assemblies are therefore normally available for public scrutiny.

*Freedom of information* legislation rules guarantee access to data held by the state. They establish a right-to-know legal process by which requests may be made for government-held information, to be received freely or at minimal cost, barring standard exceptions. In many countries there are constitutional guarantees for the right of access to information, but usually these are unused if specific support legislation does not exist.

Over 85 countries around the world have implemented some form of such legislation. Sweden's Freedom of the Press Act of 1766 is the oldest. In order to guarantee an open society with access to information about the Swedish parliament (Riksdagen), government, and government agencies, the central part of the Sweden's Freedom of the Press Act<sup>5</sup> reads:

To encourage the free exchange of opinion and availability of comprehensive information, every Swedish citizen shall be entitled to have free access to official documents.

It is notable that this, as a rule, applies also to non-citizens as well as citizens. A person requesting to study official documents do not have to divulge why he needs the documents or who he or she is. Most notable about Sweden's views on official documents, however, is the definition of what constitutes such a document. Here is a telling example:

The vehicle registration of your car is a public document. A stranger who fancy the look of your car may via the registration plate find out details of your car, such as color, weight, allowed total load, etc., but also whether road traffic tax has been paid or not, current owner and all previous owners. And since the driving license is also a public document, the photo appearing on your driving license may be obtained by the curious stranger. But that is not all. The stranger may then turn to the tax authority to learn about your filed income.

## 2.2. Parliamentary Ombudsmen

One pillar of Swedish democracy is the use of the Parliamentary Ombudsmen.<sup>6</sup> The ombudsman function is to set right; remedy or rectify actions of public authorities. The first Ombudsman was created way back in 1810. Today the Ombudsman concept has been implemented in 200 nations round. In Sweden, a person does not have to be a Swedish citizen or even live in Sweden to lodge a complaint with the Parliamentary Ombudsmen. There is no minimum age required, and complaints can also be made on behalf of another person.

Ombudsmen are also used in industry. Australia has a Telecommunications Industry Ombudsman, South Korea has a Foreign Investment Ombudsman, Great Britain has a Waterways Ombudsman, etc. There are also Ombudsmen at the super-national level. If you are a citizen of a European Union member state or reside in a member state, you can make a complaint to the European Ombudsman. Businesses, associations or other bodies with a registered office in the Union may also complain to the Ombudsman.

## 2.3. Registered Pirate Parties

The United Nations Universal Declaration of Human Rights is protected in Sweden under the Instrument of Government<sup>7</sup> which is one of Sweden's four fundamental laws. Public institutions, that is to say, the government, municipalities and county councils, shall:

- Secure the right to health, work, housing and education,
- Promote a sustainable development that leads to a good environment for present and future generations, and
- Combat the discrimination of people on grounds of sex, color, national or ethnic origin, language or religion, disability, sexual orientation, age or other circumstance applicable to the individual as a person.

In recent years, Article 19 of the Universal Declaration of Human Rights<sup>8</sup> has obtained special attention. It reads:

Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

Now, if two citizens via an Internet based server exchange musical files containing copyright protected material, would that be a reason for denying the two citizens their right to have further access to Internet? Should society create some sort of “cyber police” with the right to force internet service providers (ISP) to reveal details of users sharing files? If such actions would be approved by the Swedish parliament, that would surely seem to be a situation clashing with Article 19.

Such actions are indeed proposed in the Swedish parliament, and are referred to as the Swedish version of IPRED<sup>9</sup>, i.e. the 2004 European Union's **I**ntellectual **P**roperty **R**ights **E**nforcement **D**irective: Accordingly, Sweden, as an EU member state, “shall provide for the measures, procedures and remedies necessary to ensure the enforcement of the intellectual property rights covered by the Directive. Those measures, procedures and remedies shall be fair and equitable and shall not be unnecessarily complicated or costly, or entail unreasonable time-limits or unwarranted delays.”

IPRED dissatisfaction, not to say dismay, has led to the formation of a new Swedish political party named *The Pirate Party*.<sup>10</sup> This Swedish party was so successful that it won two seats in the *European* parliament. The Party is cautiously optimistic on obtaining at least four percent of the votes in the coming Swedish national elections (19 September 2010), the proportion needed to get seats in the parliament. A significant number of Swedish e-Gov professionals are outspoken supporters of the Pirate Party.

The Swedish Pirate Party started to deliver Internet bandwidth to *The Pirate Bay*, a world renown Swedish bit torrent search engine, on 2 July 2010. The *Pirate Bay* is a website that helps people to share digital content, regardless of form. After *The Pirate Bay* was founded in 2003, the copyright industry has tried to prevent both its servers and users from communicating. This is seen as a problem negatively affecting free speech as well as the internet infrastructure. So now, one goal of the Swedish Pirate Party is to make use of parliamentary immunity to avoid criminal prosecution of *The Pirate Bay*.

WikiLeaks,<sup>11</sup> achieving July 2010 fame for a masse release of information about the war in Afghanistan, is a multi-jurisdictional public service designed to protect whistleblowers, journalists and activists who have sensitive materials to communicate to the public. It is not a coincidence that both WikiLeaks and *The Pirate Bay* have placed their Internet servers in Sweden. To further strengthen the protection of WikiLeaks, The Pirate Party will actually take over the responsibility for security and management of the data servers of the website WikiLeaks.<sup>12</sup> Another unfolding story is that *Julian Assange*, WikiLeaks founder, wants to establish himself in Sweden, and has applied for a Swedish publishing licence, which would strengthen the protection for WikiLeaks's sources.

Such activism does get attention, but it should be emphasized that the main road for the Swedish Pirate Party is to use traditional political methods and channels. The Pirate Party wants to fundamentally reform copyright law, get basic reform of the patent system, and ensure that citizens' rights to privacy are respected. With this agenda, the party won two seats in the European Parliament and is now making a bid

for representation in Swedish Parliament and a number of municipal and county councils.

Codifying two hundred years of 'common law' resulted in the 1994 the Constitution of Sweden. This grants everyone a unique right to roam (analogue) land and (analogue) water under a motto:

- do not destroy
- do not disturb

The Pirate Party can be seen as a movement to establish a digital extension of this 'common law', ensuring citizens modest rights to roam land and water in Sweden. But not only in Sweden; Pirate Parties are today officially registered parties in 15 countries, and have active doers and movers in an additional 26 countries around the world.

### 3. Two Eye-Catching Swedish e-Gov Frontier Approaches

The lessons learned from the two accounts below might be that Sweden does not have in place a system for knowledge transfer within the family of public authorities, i.e. there is no whole\_of\_government coherence, no e-Gov governance. It is also crystal clear that e-Gov issues in little Sweden increasingly are drawn into "think globally, act locally."

#### 3.1. Authorized Economic Operator (Swedish Customs)

The Swedish Customs has been recognized for many years as an international e-Gov leader. The work with the Stairway Concept, and later its security module StairSec<sup>13</sup>, is a good case in this respect. The Stairway concept was developed during 1997-2000 and implemented in 2001-2002 as the first fully operational Authorized Economic Operator (AEO) system. The system was developed together with business representatives in order to change the customs control methodology from transaction based controls to a system based approach, generating faster and more predictable facilitated processes for trade. Basically, fully AEO certified traders and firms can employ a self-customs approach.

The Stairway was designed according to a holistic model including concepts like a one-stop-shop for interaction with Government, and a Single Window for information submission to all Government agencies through one single point. It was a gateway for the paperless communication flow with trade and industry. The data could be submitted (without cost) either through EDI, Direct Traders Input (DTI), or through an Internet service called the Virtual Customs Office. It was followed by security driven sister systems in Sweden and in USA, respectively. Sweden and USA had close development cooperation at the time, and so the two systems were full compatible when introduced.

In 2003, the World Customs Organization, WCO, started development work to create an international standard for similar systems. The work was fully based on the experience from Sweden and USA, and on some other non-operational tests made in WCO member states. The aim was to create a model to balance the need for trade facilitation with the demands for more supply chain security and enforcement. The goal was to set a global standard for cooperation and interaction between Customs

Administrations and in addition between Customs and Business. The result became the SAFE Framework of Standards<sup>14</sup> that was adopted in 2005.

To date, 161 out of WCO's 176 member states, representing 98 % of world trade, have signed to implement this standard. One of the key pillars of SAFE is the global standard for Authorized Economic Operator, AEO, through which Customs and Business arrive at mutual recognition of the customs controls, i.e. an AEO certified company should only be controlled once through the supply chain. The WCO standard was developed in cooperation with the WCO global Private Sector Consultative Group, consisting of 13 leading international trade organizations and 17 multinational companies.

Based on this global WCO standard, a number of key players developed their own AEO systems. From January 2009, the system is fully implemented in the European Union, including Sweden. This means that the original Swedish Stairway concept now has, ten years later, come back "full circle" and has become a Swedish version of the EU AEO concept. The Stairway concept is no longer mentioned at the Swedish Customs, but the World Customs Organization readily acknowledges that Sweden is the e-Gov hero in the customs sector of society. Some 75 of the 161 WCO member countries have to date developed and implemented AEO systems, e.g. New Zealand, Australia, Canada, China, Singapore, Korea, EU, Japan, Jordan, Guatemala, Costa Rica, Malaysia and South Africa.

The WCO has a specific capacity building program, called Columbus<sup>15</sup>, for support of implementation of SAFE and AEO. More than 115 countries are beneficiaries of this capacity building program. An example of WCO capacity building support is that the Swedish International Development and Cooperation Agency (SIDA) is supporting, through the WCO, the East African Community, e.g. Burundi, Kenya, Rwanda, Tanzania and Uganda, to develop and implement their common regional AEO program. This very successful project has just entered the pilot implementation stage. In addition, AEO implementation under the Columbus program is taking place in a large number of countries, e.g. Mexico, Argentina, Brazil, Kazakhstan, Russia, Morocco, and UAE. Mutual Recognition Agreements have been signed by USA, EU and Japan, and New Zealand. Negotiations are taking place between USA and EU and a wide range of other countries. The Swedish Stairway concept is still used as a benchmark that many countries have studied.

In addition, to simplify the data exchange between Customs administrations and Customs and trade, the WCO has developed a data model that regulates the information and data elements needed to be exchanged for efficient border crossings and world trade. This standard has now been adopted, not only by the WCO membership but also by the United Nations.

### 3.2. NEC, Network Enabled Capability (Sweden Defense)

On 24-25 September 2008, Sweden's Network Based Defense Program (SNBD), and NATO's Network Enabled Capability Program (NNEC) conducted a live joint "state of the art" demonstration on workability, flexibility and agility of the service oriented approach in their respective programs<sup>16</sup>. The setting was the joint civil and military handling of a "high profile" incident, a scenario which involved many operators and subsystems in an ad hoc federation of systems. It should be stressed that a user herewith can be a physical person, a service, a sensor, or an application, and that said user might belong to NATO or Sweden (military or civil sector).

The demonstration was attended by some 700 visitors from 26 nations, representing 163 organizations/agencies, and has been widely acknowledged as a

successful venture that provided a unique live demonstration of the principles of NEC and Service Oriented Architecture (SOA). The NBD/NEC demo was also a good example of the so called “iceberg state of art”, i.e. that the visible part is a minor part of the full picture. Sadly enough, within Sweden, the achievements of Sweden Armed Forces with regard to Information Systems (IS) and Information Technology (IT) has remained a hidden treasure for many years. Of late, however, outspoken recognition has come in the arena of international capacity building for complex joint international operations, for example in connection with Sweden’s participation in EU and UN missions around the world.

When it became acknowledged that Sweden’s work on “NEC Architecture Development and Implementation” was years ahead of its peer nations, Sweden and Swedish experts were invited to participate in NATO and bilateral information infrastructure projects. Worthy of note is that NATO has adopted Sweden’s architectural design-rules for Service Oriented Architecture in the NATO Architecture Framework (NAF) and more detailed design rules into the NATO Interoperability Standards and Profile (NISP)<sup>17</sup>. And so, when NISP version 5.0 shortly will be established, it will also be established within Sweden Armed Forces.

A direct rather than circuitous road is taken with regard to EU Member State national preparations for response team disaster operations. The concept will be used by individual countries and for cooperation at multi-national operations, and hereby the Swedish Civil Contingencies Agency will have a central role. Furthermore, the agency has asked the Sweden Armed Forces to be a partner in the creation of a higher education capacity building for management of complex public undertakings; declaring war on natural and manmade disasters.

Finally, in June 2010, EU and USA authorities reached a preliminary agreement on interoperability between their future Air Traffic Management (ATM) systems. Contrary to USA, Europe does not yet have a single sky – one in which air navigation is managed at the European level. Furthermore, European airspace is among the busiest in the world with over 33,000 flights on busy days. Airport density in Europe is very high.

The EU Single European Sky initiative, SESAR<sup>18</sup>, attempts to overcome this fragmentation and capacity crunch by structuring airspace and air navigation services as a pan-European concept, an area where Sweden Defense clearly excels.

It is very promising that the Swedish Aviation Authority, LFV, has decided to bring in the Swedish Armed Forces NBD architecture concepts and design rules to help pave the way at the EU level. The objective of the SESAR Concept of Operations is to describe, in sufficient detail, the ATM operation envisaged for Europe in the 2020-25 timeframe. In addition, SESAR will review some concept elements envisioned to be deployed beyond 2025 so that airspace users, service providers and other specialized SESAR tasks may gain an understanding of the operational characteristics of ATM in 2020+. Overall, the main changes implied in operating practices and the support they require will be addressed. Early on in the ATM EUROPE PROGRAM, it was concluded that the only possible way forward would be to forgo the “systems model” and instead fully embrace a Service Oriented Approach for a smooth ride towards One Sky 2020 and beyond.

## 4. Time for a Change

In 1718, the Swedish king Karl XII introduced right-hand traffic for the National Postal Stage-Coach Services. Shortly thereafter, under a new regent, the aristocracy in 1734 re-introduced left-hand traffic. In modern time, after decades of deliberation,

right-hand traffic was once again introduced in Sweden. The postage stamp tells that the switch-over took place on 3 September 1967, and that the cost of sending a regular letter at that time was SEK 0.45.



The newspaper clip shows what it looked like at Kings Street in Stockholm at the very switch-over time 05:00. By and large, switching from left- to right-hand driving was a smooth and accident-free experience. Sweden still has right-hand traffic, but the SEK 0.45 stamp now costs SEK 6.00; and will eventually disappear.



Contrary to the gloomy projections, the left-right switch-over turned out not to be disruptive at all. With regard to the good old regular mail services, Sweden Post tried to become a new era actor by getting involved in e-letters, e-signatures, and e-IDs. This didn't work and so the focus was shifted to parcel services and business consolidation. There were an abundance of negative views when the National Swedish Post first became a government owned company, and then started to use local groceries as postal outlets. However, it worked out just fine to citizens and industry. Accordingly, no serious objections were voiced when in June 2009 the Swedish Post and the Danish Post became one under the name Posten Norden. Today, everything looks OK to citizens and industry. There is a healthy competition and new creative services keep showing up on the market. No government involvement.

Post offices have disappeared and the use of letters as a channel for communication between citizens and public authorities have trickled to a minimum. Was this part of an action program? No, it just happened before the eyes of the citizenry.

#### 4.1. An Initial Series of e-Gov Action Programs

Looking in the time-reverse mirror, certainly there have been a number of technological advancements positive to mankind. What is striking, however, is that

the penetration of the various advancements goes progressively quicker and quicker and deeper and deeper into all geographical and social corners of the world. New channels, tools, communication, and actors, present themselves on the agenda at an ever quicker tempo. Time, technology, globalization, and cost efficiency are acting as seemingly unstoppable ‘action programs.’ Decades of ‘time-to-market’ in the not so far away past will only take a few year in the not so far away future.

#### 4.1.1. *e-Gov Action Program #1*

In retrospect, action program #1 came about when a social democrat government in the 50ies embarked on a massive welfare program. For a period of ten months, during 1954, Sweden was actually the proud owner of the world’s fastest ‘multiplication machine’. The register for personal identity numbers was in place by 1947 and the registration was computerized in the 1960s. Several other national databases were established, displays and keyboards became everyday office tools, and Sweden was the first country where office computerization was identified as a possible source of occupational safety and health concern<sup>19</sup>. In 1968 Sweden co-founded The International Council for Information Technology in Government Administration.

#### 4.1.2. *e-Gov Action Program #2*

The Government Bill on a ‘Coordinated Data Policy’, 1981, was the starting point of action program #2. It was followed by a number of computer or ICT-related bills and policy documents been passed by the Swedish parliament. The Government in 1994 set the target “a world leader by 2010.” The most notable action step in this direction was the 1997 Parliament decision to provide a tax deduction incentive for employees to purchase PCs via their employers. The idea behind this costly ‘Home PC Reform’ was to (i) create an information society for all, (ii) act as an injection to industry, (iii) support democracy by means of *e-Access* and *e-Participation*, and (iv) to serve as a base rationale for *e-Services*. These reform components (i-iv) usually act together under the umbrella term *e-Gov*. At this time, in 1995, Sweden had become an EU member state and immediately became a leading e-Gov actor; e.g. by organizing a bi-annual Challenge rewarding promising e-Society entrepreneurs from all over the world.

#### 4.1.3. *e-Gov Action program #3*

*Public Administration in the Service of Democracy — an Action Program*. This was the outcome of two Government Bills; Central Government Administration in the Citizens’ Service (1997/1998), and An Information Society for All (1999/2000). SAFAD, the Swedish Agency for Public Administration, was tasked to work out the details of the program. The result was the 2000 SAFAD report *The 24/7 Agency – Criteria for 24/7 Agencies in the Networked Public Administration*.<sup>20</sup> It was a well received report that led to a flurry of activities in all agencies, foremost the state agencies, and an EU best-in-class e-Gov rating.

But within Sweden there was a general feeling of sub-performance due to the absence of a 24/7 budget, which led to a non-coherent and non-directed development path; there were for example only a few cases where agencies worked together to solve problems. The agencies took 24/7 steps that best suited their respective individual needs and budgets. And indeed, why should X use its budget to make life easier for Y and Z?

The Government responded by various ad hoc measures, such as tasking SAFAD and key agencies to develop co-operation schemes, appointing a *24-Delegation*

instructed to work with the municipalities, and creating a cross-agency E-board with the mandate to issue advisory guidelines and binding standards. These new measure didn't really make a difference. The Government therefore pooled all the 'floating' e-resources, including SAFAD's e-resources, into a new Swedish Administrative Development Agency, acronymed VERVA and tailored to coach the e-Gov action program.

#### 4.2. Today's e-Gov Action Program

In accordance with the national election results, a center-right government moved in to the central government offices in the autumn of 2006. It was decided that issues dealing with the use of information technology should be handled by the Ministry of Finance. The ministry three months later published a report entitled *e-Government Action Plan. A new basis for IT-Based Organizational Development in Public Administration* (January 2007)<sup>21</sup>. Its central statement was that the Swedish decentralised e-Gov model, the 24/7 public administration, had been relatively successful for many years and had led to rapid improvement in the level of services at individual public authorities. The drawback of the strategy had, however, been that public administration as a whole had not been able to benefit from the network-oriented use of IT to a sufficiently high degree.

One would think that this was an action plan for the further development of e-Gov services delivery by the agencies to citizens and industry. No, this was an action plan on how the ministries collectively should deal with e-Gov issues vis-à-vis the agency collective. To this effect a cross-ministerial under-secretary e-Gov group was formed, and a special Government Inquiry tasked to work out an organization 'tool box' suited to the needs of the ministries (i.e., the Government).

In the spring of 2008, before the Inquiry's report had been delivered, the ministry of finance – on behalf of the cross-ministerial e-Gov group – withdraw VERVA's commission to deliver the national e-Gov portal *www.sverige.se* that since 1997 had been the Internet guide to Sweden's public sector.<sup>22</sup> No other agency was tasked to carry over. This puzzling move is yet to be explained by the government. To some extent it was explained by the next move – to close down VERVA as well, staffed by 90 e-Gov professionals.

The ensuing Inquiry report, entitled *A Government Support in Time*,<sup>23</sup> concluded that the traditional Swedish governance model was not optimal for the rapidly developing e-Gov arena. Go-between and coaching support agencies, such as VERVA, was seen not have enough clout to herd the 240 independently managed state agencies. A more straight-forward e-Gov governance model was called for. The Inquiry also pointed out that the time was ripe for the creation of an *e-Tsar*, i.e. a Central Information Officer, a plea that had earlier been put forward by state agencies themselves.

Based on *A Government Support in Time*, the Government on 26 March 2009 prioritized e-Gov by creating an *E-delegation* tailored – helping to implement – the e-Gov action plan. The Government did not follow the Inquiry's proposal regarding the need for an e-Tsar acting as the focal point for the e-Gov prioritization.

#### 4.3. The E-delegation

The web site <http://www.edelegationen.se/> has an English speaking web section.

Fifteen individuals were appointed members of the E-delegation, fourteen state agency directors general plus the chief executive officer of the Swedish Association of Local Authorities and Regions.

According to the Swedish legal bureaucracy, the Delegation members are appointed as individuals and do *not* represent their respective agencies where they act as directors general. The Delegation is nevertheless to be responsible for coordination at the inter-agency level. This will entail, on the one hand, coordination of e-Gov projects that are of a strategic nature, i.e. individual projects that affect the general direction of developments in administration, and on the other hand coordination of those agencies that have responsibility of their own for developing a project or sector, so that each sector weighs in an interest for the state as a whole in its development work. The Delegation will have as its main task to *design a strategy for the state agencies' e-Gov work, and hereby identify development projects that need to be prioritized*. The strategy is to cover the following areas:

- How collaboration between state government agencies, local government agencies, and the business sector and organizations, can be improved and how responsibility should be divided. The agencies responsible for collaboration in each sector should be proposed;
- how the public sector's provision of electronic identifications, i.e. the processing of identifications and signatures, should be conducted in the future, based on the report 'Safe electronic exchanges of information and the management of electronic documents';
- how technical interoperability can be achieved at a common public administration level and at sectorial level;
- how standardization and possible system integration platforms (adapters for automatic conversion between standards and formats) should be used when developing e-Gov;
- how the public sector's development of e-services should support the transition to new technology, such as the transition to IPv6, i.e. a new system for allocating Internet IP addresses;
- how administrative support services can be concentrated within public administration;
- how agencies should run, exchange or buy and sell IT services within the state sector and in connection with the export of services in the future;
- how collaboration on e-Government within sectors can be promoted,
- how more e-services for citizens and business operators can be developed, primarily such services that integrate the processes of several agencies in user-friendly interfaces and how the level of services for e-services should be regulated; and
- how IT development can create opportunities for improved services for citizens and the business sector in sparsely populated and rural areas, taking local conditions and the different needs of citizens into account.

This is indeed a really tall order. Again, it should be noted that the Delegation members are appointed as individuals, not as directors general with their respective agency resources at their disposal – those are regular appropriation resources to be used as specified in ordinances and the annual agency directive. The Delegation was equipped with a small budget, primarily for a secretariat of eight people.

The Delegation was required to produce an initial proposal for a strategy for the implementation of the Government's e-Gov action plan, to be presented to the Government (Ministry of Finance) by 30 September 2009. Beginning in 2010, the

Delegation is to present reports of its work to the Government by 20 March and 1 October, respectively, every year. A proposal on how to proceed with the work in a longer-term perspective is to be presented no later than 20 March 2014. A final report is to be submitted by 31 December 2014 at the latest.

A serious drawback with this scheme is that it doesn't address the de facto Swedish e-Gov governance vacuum, from the time when the phasing out of VERVA was sensed (mid 2007) until the action plan starts to have an impact on the public authorities (mid 2011?). There is no e-Tsar, no national e-Gov portal, and no in-house organized e-Gov training or networking.

#### 4.4. The E-delegation's Action Plan Implementation

The fifteen E-delegation members represent individual clout and leadership. They were given a tall delivery order before the small Delegation secretariat had been composed. Their short term solution was to purchase e-Gov consultancy from Gartner and Accenture.

The instruction from the Government was to submit a proposal for a strategy for the state agencies' e-Gov work, but the Delegation decided also to include proposals on decisions needed to be taken by the Government to make the strategy work. The English summary of the resulting report is entitled *Strategy for the Government Agencies Work on e-Government*, and the Delegation's website 'markets' the report as *Third Generation e-Government*.

In accordance with the Swedish referral procedure, the Government will use the proposal, and the referral responses, to go on with further decisions, and may eventually produce a final strategy document. Examples of such further decisions are that more directors general have been brought in as Delegation members, and new instruction issued to the Delegation. Below follow the major points in the proposed strategy.

##### 4.4.1. *A Societal Cost-Benefit View*

Financing cross-government projects is problematic in the traditional Swedish governance model. Another problem is that agency specific services tend to result in too low a number of users to realize anticipated savings. The Government's action plan states the aim of the work to be '*As simple as possible for as many as possible*'. In the Delegation's view, the aim should be broadened to include an objective which refers to *society's overall development capacity and innovative potential*. By focusing on the needs of society, objectives such as reducing the administrative burden on enterprises and simplifying the everyday lives of ordinary people can be achieved.

In other words, e-Government should no longer be regarded as an internal agency concern but as a tool capable of having a major potential impact on society as a whole. Moreover, the creation of a clearly defined, standardized environment for e-services will allow actors in society to take an active part in a collaborative effort with government agencies to develop e-services that generate further benefits for society at large. Such a strategy lays the groundwork for phased, demand-driven development of Swedish e-Government. A more broadly defined objective and a higher level of ambition will, in the Delegation's view, help the strategy *progress to the third generation of e-Gov*.

##### 4.4.2. *Flexible e-Gov, Based on User Needs; Four Lead Agencies*

To ensure the provision of demand-driven e-Government services, the Delegation proposes that the Government assign special responsibility for e-Government

development to the following four e-Gov lead agencies (i) the Swedish Companies Registration Office, (ii) the Swedish Tax Agency, (iii) the National Land Survey, and (iv) the Swedish Transport Agency. The agencies would take a leading role in initiating collaboration and development in their respective user constituencies and stakeholder areas. The above agencies would also be required to provide basic services for information maintenance.

The Delegation will regularly identify and submit proposals to the Government regarding further stakeholder and target group initiatives, and will coordinate this process in accordance with the terms of its assignment. In addition, the Delegation will establish and run electronic forums as a means of capturing needs and promoting exchanges of experience between e-service developers in the public sector, the business world and citizens. The Delegation will also initiate a process involving collaboration and agreements with relevant actors, including representatives of the business community and the Swedish Association of Local Authorities and Regions, with a view to ensuring demand-driven, flexible e-Gov services.

#### 4.4.3. *Managing and Financing Demand-Driven e-Gov Services*

To ensure sustainable management and financing of activities within and between various stakeholder and needs areas, the Delegation proposes the application of a *management model supported by external funding* from the Research and Development Fund at the Swedish Agency for Innovation Systems. The Delegation must also be able to refer financing issues to the Government for decision. The Delegation will therefore be required to develop a model for calculating the costs and benefits of strategic e-Gov projects.

To this effect the Delegation proposes that the Government commissions the Swedish Companies Registration Office, the National Land Survey, the Swedish Tax Agency, and the Swedish Agency for Economic and Regional Growth, to *draw up templates for collaborative project agreements*.

The Delegation will be required to draw up guidance, as well as follow up, on agency *e-Gov activity planning*. When agencies report their activity plans and undertake work in the e-Gov sphere, measures and initiatives are to be classified in four groups under the following services headings: (i) *Infrastructural Services*, (ii) *Basic Services for Information Maintenance*, (iii) *Services Produced in-House*, and (iv) *Jointly Produced Services*. The aim here is to facilitate collaboration and communication between *state agencies* and *the local government sector*.

The Delegation will *analyze the needs of the public from a holistic perspective* and seek to ensure that these are taken into account in activity planning. The Delegation will be required to annually coordinate a *sector-wide strategy process*. In order to broaden its own perspective on the work under way, the Delegation will appoint expert groups tasked with preparing background material and otherwise assisting it to carry out its assignment.

It is essential that *ordinance provisions* provide greater clarity and serve to *raise the level of ambition in the e-Gov sphere*. The Swedish Tax Agency is to be given powers to issue regulations via a *specially appointed board*. The Delegation proposes that the Government appoint a committee of inquiry to conduct a *review of the relevant statutory instruments*.

#### 4.4.4. *Technological Preconditions for a new, Flexible Infrastructure*

Agencies require a basic infrastructure specifically designed to allow collaboration between independent entities. If the Delegation's proposals are adopted, *all agencies*

*will largely be able to determine their own processes and architecture.* At the same time, the proposed standardized, message-based solution would clearly delimit responsibility for information exchange. Thus, the proposals would also serve to enhance information security.

The Delegation proposes that a board at the Swedish Tax Agency be empowered to issue regulations in a number of areas, including common standards for electronic information exchange between government agencies, and that *the Legal, Financial and Administrative Services Agency be tasked with ensuring that framework agreements on standardized message processing are in place.*

The Delegation is to draw up *guidance on automated collaboration* and proposes that it serve as the basis for a statutory regulation. The guidance will stipulate that *disparities in respect of data, concepts and semantics be dealt with as they arise.* It will also provide for the re-use of existing solutions and recommend that open standards be the preferred option, and that open applications should always be considered when choosing technological solutions.

#### 4.4.5. *More Efficient Support Processes*

Development in the IT sphere has made it possible to enhance the efficiency and effectiveness of support processes by enabling a number of agencies with similar needs to avail themselves of services from common activity support systems. It is proposed that the Government commissions two agencies – Tax and Police – to undertake, on a trial basis, the *development of common administrative support services.* Such support services would *initially cover financial management and personnel administration.* Over time, other support processes and other agencies should also be included. By way of preparation, the Delegation proposes that the Government commissions the National Financial Management Authority to perform standardized measurements of the financial management and personnel administration of certain agencies in order to assess their prospects of inclusion in the trials or of becoming a host agency.

The Delegation also proposes that the Government requires agencies to draw up a strategy for IT service provision – a so-called *sourcing strategy.* The Legal, Financial and Administrative Services Agency would be required to ensure that planning and implementation of public procurement under framework agreements served to stimulate the agencies' strategies. The agency would also be expected to draw up guidelines on requirement setting and cost-benefit analyses in respect of externally purchased IT services, conduct a systematic follow-up of volumes ordered and other follow-up parameters set in framework agreements, and develop procedures for exchanges of knowledge and experience in this area.

#### 4.4.6. *E-identification (e-ID)*

Although the solution presently used for e-identification has been relatively successful, it poses certain problems. In some cases, the business model has entailed substantial costs for the relying parties. The model is not flexible and various technical issues have arisen. E-identification and e-authentication from public computers and computers at workplaces is problematic. Moreover, e-identification codes/numbers are not issued to non-permanent residents in Sweden and only to a limited extent to under-age users. Users sometimes experience difficulty in using the services. People issued with credit cards for use on official business are unable to use these to access public service solutions provided by agencies.

The Delegation therefore proposes that an *independent e-ID board with statutory decision-making powers and the power to issue regulations should be set up within the Swedish Tax Agency*. The board would have a coordinating function for e-IDs, electronic signatures and related services. The board would also supply services against payment, e.g. e-IDs, electronic signatures, seals, etc., to affiliated state agencies and local government authorities. It would also provide support for a corresponding development in the business sector. Solutions here would need to include under-age users and/or those who do not have a personal identity number. The board would be required to direct and control the procedures used by issuers of electronic credentials so that, for example, personal identity numbers are only disclosed to agencies and other actors entitled to this information.

With e-service identification, the use of personal identity numbers on e-service IDs would no longer be required. It will also enable businesses and agencies to apply for electronic credentials for their employees and contractors. E-service identities are designed for use within the entire public sector and the business sector. They are also designed to support a federal solution, which in the longer term could also provide support for legal authentication.

The National Archives should develop a strategy for the preservation of digitally signed documents. The agency should also further develop its regulations in this area and draw up guidance in collaboration with other agencies.

#### 4.5. Consolidation of the Proposed Implementation Plan

The Delegation in August 2010 had grown to 17 members and 1 expert, and had a 6 person secretariat. The chairman has now a position as director general within the government central offices, which must be seen as consolidation of the evolving e-Gov agenda. The following directives have been added to the original terms of reference for the Delegation:

##### 4.5.1. *Open Data, Re-Use of Public Information, and Use of Social Media*

Two new tasks for the Delegation. (1) The prioritized areas in the e-Gov Action Plan included the need to clarify the conditions for the re-use of public sector information in accordance with the EU PSI Directive<sup>24</sup>. The legal clarification was handled in the Government Bill '*Public administration for democracy, participation and growth*'. In addition to the original remit, the Delegation was in March 2010 instructed to promote and coordinate the agencies' efforts to improve the conditions for the re-use of documents. These efforts are to be based on said bill. (2) Within the framework of its remit to develop instructions, the Delegation is also to draft guidelines for government agencies' approach to open data, and use of social media such as Internet forums and blogs; as suggested in the Delegation report *Strategy for the Government Agencies' Work on e-Government*.

##### 4.5.2. *Creation of a Board for Coordination of e-IDs*

The Delegation proposed that an independent e-ID board with statutory decision-making powers and the power to issue regulations – and perhaps sell services – should be set up within the Swedish Tax Agency. Good suggestion, said the Government, and appointed one of the Delegation members to head a Commission of Inquiry on the creation of an e-ID Board nested in the Tax Agency and with one of the Secretariat experts as a full time support.

#### 4.5.3. *Third Generation e-Gov*

A more broadly defined objective and a higher level of ambition will, in the Delegation's view, help the strategy progress to the third generation e-Gov. At this level of ambition, we can talk about the society's collective development and innovation capability. We would then be able to describe an agile and flexible public administration capable to develop in accordance with the needs of citizens, industry, EU, and the government.

The Delegation doesn't have to look far for advice on how to get into an early ground-breaking mood of third generation e-Gov. Two such frontier agency projects have already been described above (in section 3), and a third example (described in section 5.3 below) might be the 'Swe-Gov Apps Store' being established at the Legal, Financial and Administrative Services Agency.

#### 4.5.4. *Positive Referral Responses*

The referral responses were quite detailed and definitely were an overall positive feedback to the Delegation. Several agencies volunteered to run pilot projects, and others asked for a broader and braver approach. The negative responses by and large circled around the question whether or not some of the whole\_of\_government approaches were in conflict with the legal framework for Swedish Public Authorities. One example would be if the proposed e-ID Board could charge for services without having gone through the procedure spelled out in the Public Procurement Act.

## 5. Towards an Agile Action Program

The birth of Sweden's first e-Gov action program was a process of many decades of time. The succession times of following action programs became progressively shorter. The current program (#4), very brusquely phased out the forgoing program agency (VERVA) in its 3<sup>rd</sup> year of action. Current program is actually designed in such a way that it's self-corrective and moving along with its target (which gradually will incorporate more elements of Sweden's EU membership).

### 5.1. Concerted Capabilities

The Technology is moving very fast, and perhaps a technology driven four year action program will have to outlive more than one e-Gov generation shift. Traditional public sector organizations are on the other hand anchored in law and tradition, and are designed to withstand political turmoil. But can and should it withstand "disruptive" technological turmoil?

The Swedish *definition of e-Gov* reads: *The use of information and communication technology in public administrations combined with organizational change and new skills in order to improve public services and democratic processes and strengthen support to public policies.* The current Swedish action program is a combination of a determination to absorb disruptive new technology while at the same time deliberately disrupting the governance model of highly independent government agencies. Brave New Swedish World.

In order for this to work in an agile and sustainable way, Sweden would need a *high level change architecture* and a *national think tank* and *consumer-producer sensors* supported by an *Open Gov Data practice*.

## 5.2. The European Dimension

The Delegation only makes passing reference to EU, yet the Swedish EU membership is becoming more and more important every year. Sweden did not pay enough attention to the directive on the re-use of public information (PSI), was then *forced* (heavy fines) to follow the implementation rules, and was exposed as the worst PSI laggards.

Customs and Defense are recognized as important areas and where there are mandatory member state requirements. As elaborated in section 3, above, Sweden excels in those areas. The clout and experience earned in the Customs and Defense area would be a boon to a whole\_of\_government action program; perhaps not with regard to traditional e-Gov, but most certainly when it comes to real-time interaction, capacity building, networked businesses, international cooperation, agile solutions, architecture, technology procurement, and security.

Hopefully the use of such new e-Gov partners' skills and specific requirements can be reused and is in line with the Delegation's wish to broaden the terms of reference to include an objective which refers to *society's overall development capacity and innovative potential*. By focusing on the needs of society, objectives such as reducing the administrative burden on enterprises and simplifying the everyday lives of ordinary people can be achieved.

The following excerpts from recent Ministerial e-Gov Declarations show what the European Dimension looks like in policy documents. Under the chairmanship of Minister Mr. Mats Odell, representing the Swedish EU Presidency, the member state ministers for e-Gov policy on 18 November 2009 unanimously signed the Malmö e-Gov Declaration,<sup>25</sup> which calls for the development of an *EU e-Gov Action Plan for 2011 to 2015*. The ministers hereby vowed to:

- Develop user-centric services that provide flexible and personalized ways of interacting with public administrations.
- Develop multi-channel strategies in order to deliver e-Gov in the most effective way.
- Develop inclusive services that will help to bring down barriers experienced by digitally or socially excluded groups.
- Develop efficient e-Gov services built around the needs of users and that will increase trust in government and contribute to higher user satisfaction whilst achieving efficiency gains.
- Collaborate with third parties, for example businesses, civil society or individual citizens, in order to develop user-driven e-Gov.

In the follow-up meeting, Granada, 19 April 2010,<sup>26</sup> the ministers in reference to the preceding meeting stressed the need to:

- Explore ways to seize the opportunities of cloud computing to provide productivity and efficiency gains as well as environmental gains especially for European public bodies, small businesses and communities.
- Promote data protection, network and information security and trust through concerted EU actions on e-Authentication for consumers and businesses online, especially on e-signatures, e-ID cards, e-Payments, and internet safety.

## 5.3. The Swe-Gov Apps Store

The 2010 EU Ministerial Declaration made reference to *Cloud Computing*. The phrase may be new but the concept is not new in Sweden. As a part of Action Program #3, Sweden worked diligently with the provision of a standardized secure

messaging system named SHS. This is now used in the Swedish Government Secure Internet for communication with the EU and member state administrations, respectively.

When specified in 1999, the SHS system was a pioneering concept. It was spread out in the public administration by means of framework procurement. To make SHS suitable also for smaller agencies it was later offered as a service, and with add-on services options. Such an SHS services package was in 2002 called an *infra-service*; today we might have called it a *cloud service*.

The Delegation has called upon the Legal, Financial and Administrative Services Agency to support the e-Gov Action Program with technology analyses and procurements. Such support is actually in place at said agency's IT-procurement division. One line of the support is an expansion of the successful SHS infra-services. At the end of October 2010 it will be announced which bidder will be awarded providers of what is now called *e-Gov Enabling Services*. Today, this de facto *Swe-Gov Apps Store*<sup>27</sup> is just as groundbreaking as was the SHS infra-services concept conception ten years ago.

What will be for sale on the shelves of this 'Swe-Gov Apps Store'? We have to wait until the details of the framework procurement are finalized and the winning salesmen step forward. The first set of shelves is, however, labeled:

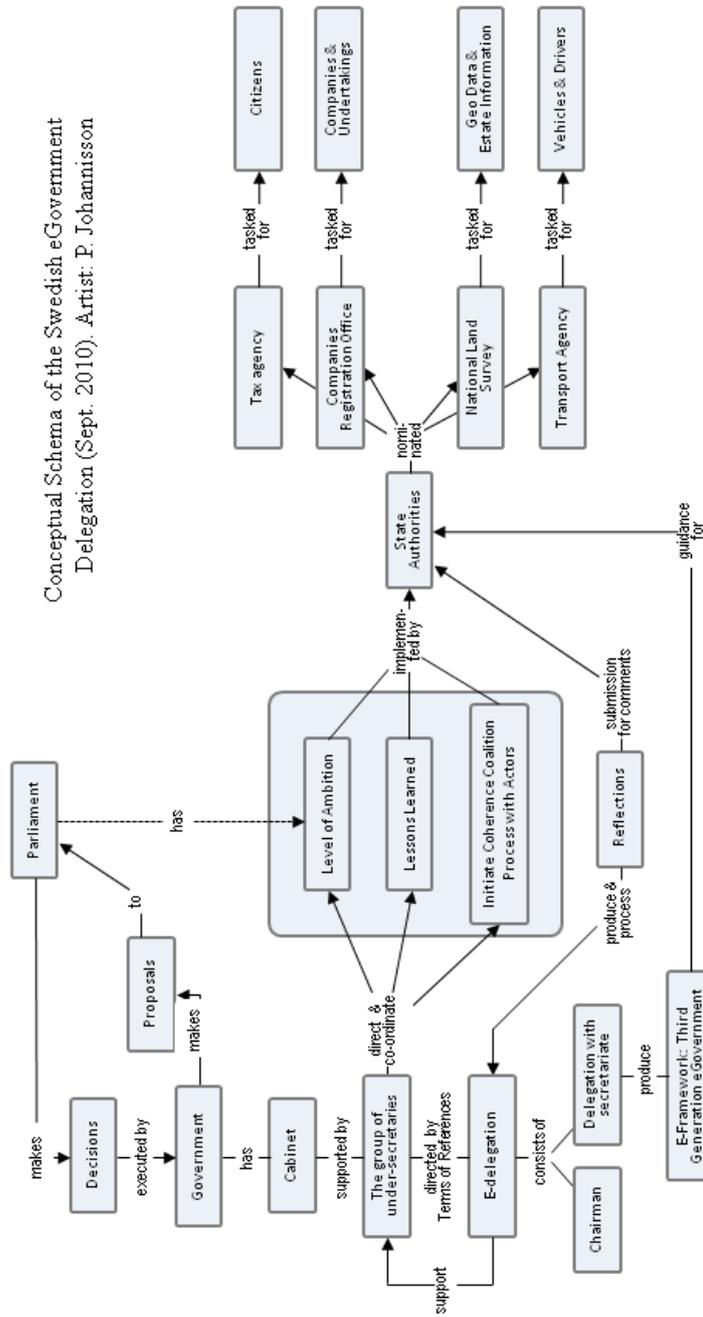
- Front Office Support Services:  
My page, Search services, etc.
- Back Office Support Services:  
Registrar's diary, Document management, etc.
- Infrastructure Services:  
Secure information exchange, Validation of e-IDs, etc.
- Meta Services:  
Implementation and integration, Service management

This interesting approach is worth a grooming and nurturing attention by the Delegation. It would for example be interesting if syndicated e-Gov Apps Stores could be used when the European Union rolls out future more or less mandatory e-programs.

## 6. The Times They are Achanging

Yes, and the E-delegation, the Swedish e-Gov change agent, is picking up speed and competence. However, as shown in the conceptual schema, the current Swedish e-Gov machinery is a quite complicated and a roundabout management construction. This will most likely be straightened out as a consequence of the national election (19 September 2010) and the ensuing ministerial changes, including the appointment of an IT minister. The new Budget Bill signals fresh money and a determination to rectify the problems identified by The Swedish National Audit Authority.<sup>28</sup>

Conceptual Schema of the Swedish eGovernment Delegation (Sept. 2010). Artist: P. Johannisson



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- <sup>2</sup> In Swedish only. <http://www.riksrevisionen.se/templates/OpenDocument.aspx?documentid=4584>
- <sup>3</sup> In Swedish only. [http://www.riksrevisionen.se/templib/pages/OpenDocument\\_\\_\\_\\_556.aspx?documentid=7122](http://www.riksrevisionen.se/templib/pages/OpenDocument____556.aspx?documentid=7122)
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