

THE ONSET OF THE NEON TOOL AND ITS MANY BENEFITS AND POPULARITY IN WORKFORCE PLANNING IN ERICSSON INDIA

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ABSTRACT

Ericsson Global services India Pvt Ltd (EGI) is one of the largest ICT companies in the world which offers both products and services for IT, as well as for wired & wireless telecommunication networks. Amongst many other departments and functions within Ericsson, the department of Network Engineering plays an important role within the company to build and expand networks, support latest services and also to blend and deal with different technologies. Ericsson, being the world leader has been the driving force behind the expansion and improvement in connectivity worldwide. Around 40 percent of the global mobile interchange happens due to the networks supplied by Ericsson. Apparently more than 1 billion subscribers around the world rely everyday on networks managed by them. They have industry's strongest intellectual property rights portfolio with more than 37000 granted patents. As a company they strongly believe that through mobility the society can be transformed for better. The company comprises of strong Workforce of 5000 plus knowledge workers including service engineers, solution architects and project managers. This Case Study focuses on how the complicated phenomenon of planning and managing the humongous Workforce is executed in Ericsson and also investigates the Network Engineering Online Tool which was developed by a small team in the function of Network Engineering(NE) based in DLF Cyber city, Gurgaon, Haryana in order to facilitate first-rate handling of large volume of off shoring business at EGI(NE). Being the largest NE organization which caters to providing managed services, project related services and system integration business lines, it is imperative that it has the sufficient talent pool and skilled workers. And this study explores how the NEON tool enables the same.

The strength of NEON lies in giving reports at a click of a button by facilitating 'dip stick measurement' for various levels of demand forecast for workforce; Be it Competence-Domain

wise or Region-wise or Technology or Sub-technology-wise or Vendor wise or Business Line wise for the company. Today NEON is a way of life within Network Engineering and gradually being accepted by the interfacing organization and support function. The advent and acceptability of NEON also proves that a home grown solution is better in terms of adaptability, cost and interfacing as compared to its other counterparts which take a lot of time for the implementation and customization. Tracing back around time one can easily realize the sea change that has been brought by the advent of Information and Communication Technology. Even workforce planning is not untouched by its magic. Apart from providing infrastructure for almost all the industries, ICT is also transforming the workplaces and evolving the way we work. It also enables the society to stay connected in multifarious ways. It can be seen that new innovations and forms of expressions are finding a greater audience, industries and hierarchies are revolutionized and we are seeing a fundamental change in the way we communicate, socialize and take decisions together. While the case study concludes that more research is required to come up with better practices in talent management and workforce planning. It weighs the various workforce planning tools and provides managers contemplating the same with extensive resources and valuable information that will help them take the right decision.

Keywords: Network Engineering, Workforce, Talent Management,

ICT-The Ruler of the World

Tracing back around time one can easily realize the sea change that has been brought by the advent of Information and Communication Technology. And in the current scenario ICT can be perceived as an *Enabler* in so many ways. Since it enables the society to stay connected in multifarious ways and provide infrastructure for almost all the industries. The so called *Digital Era*, on one hand has changed the way we lead our personal and social lives and on the other it is transforming the workplaces and is evolving the way we work at a pace as quick as a flash. In different industries ICT has different connotations. Be it the Primary industries like farming, mining, forestry and fishing etc. Or be it the manufacturing industry which involves in transforming raw materials to sellable products using assembly lines etc. Or be it the service industry for that matter, which includes healthcare, banking and also the high-tech industries including the R&D companies involving highly qualified and technically skilled professionals.

Talking about the manufacturing sector the advent of ICT has resulted in *automation* of the processes and extensive use of assembly lines. And as far as the service industries are concerned, though no products are manufactured per say but still they extensively make use of ICT as an *infrastructure* to get things done. The service industries happen to contribute substantially to the GDP of a country. And ICT is the *backbone* of all service industries.

Broadly speaking ICT has been a *scene changer* in more ways than one. Looking at the transformation brought by ICT to the big picture is really interesting, to put it mildly. Just a few decades ago, connectivity between two computers in the same vicinity was a bizarre joke. And at that time if somebody would have mentioned about video calling a person sitting in another continent, people would have laughed at him or her or take him to the psychiatrist.

Truth is, technology has changed everything viz. the way we do business, the way we mingle socially, the way we shop or sell, the way we find help, the way we live in a nutshell.

In the 1980s when the emergence of the LANs was taking the whole world by awe, the usage of the *optical fibre* completely turned around the state of affairs. Suddenly we could transfer data at the *speed of light*. And it was actually possible to see people sitting in another continent in real time through a computer. The world was not the same anymore.

We took our first step towards the world which was driven by technology. It had tremendous impact on the society and humongous implications on the way people did business. One of the path breaking implications was that in 1990s the developed nations decided to leverage on technological innovations and *outsource* their business to developing countries to save on cost because of the expensive labour. The term '**outsourcing**' never had so much importance.

Telecommunication and Mobile Communication

Amongst the diverse repercussions of the ICT in all areas of business and life, one of the key repercussions was the initiation of the *mobile communication* and the *telecommunication*.

Before the nineteenth century, long distance communications included techniques like visual signals such as beacons, smoke signals, semaphore telegraphs, signal flags and optical heliographs. Things have come an astoundingly long way ever since the advent of telecommunication through the Radio Frequency (RF) and Microwave (MW) came into being.

It's extremely interesting to observe how different technological innovations and inventions cumulatively had an impact on the whole scenario. For instance, on one hand optical fibre and the subsequent technological innovations changed the data transfer rates tremendously making internet a reality, shrinking the whole world into a small village and on the other hand IT also became the major building block for industries like the *mobile communication* and the *telecommunication*.

Talking about the present scenario, companies like Ericsson, Siemens, Nokia, Motorola etc. are providing the infrastructure and service to network operators like Airtel, Idea, Vodafone, Docomo and Reliance etc.

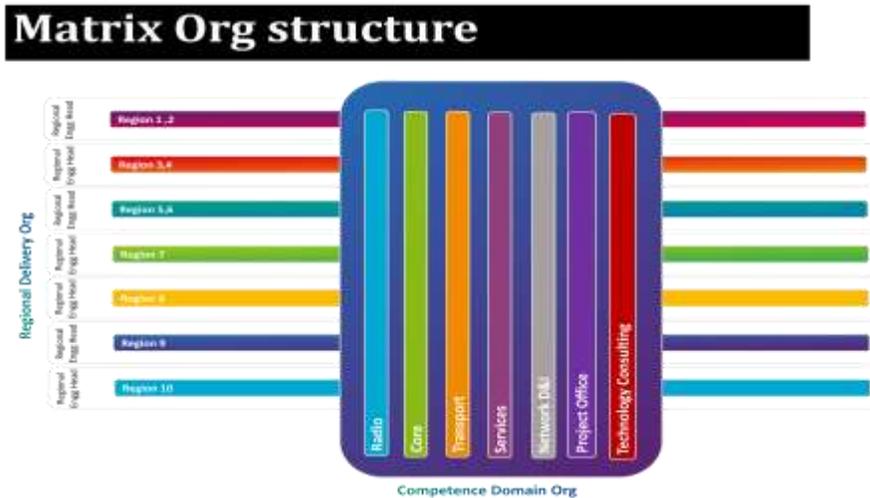
Ericsson-The World Leader

Currently, Ericsson Global services India Pvt Ltd (EGI) is one of the largest ICT companies in the world which offers both products and services for IT, as well as for wired & wireless telecommunication networks. Ericsson, being the world leader has been the driving force behind the expansion and improvement in connectivity worldwide. Around 40 percent of the global mobile interchange happens due to the networks supplied by Ericsson. Apparently more than 1 billion subscribers around the world rely everyday on networks managed by them. They have industry's strongest intellectual property rights portfolio with more than 37000 granted patents. As a company they strongly believe that through mobility the society can be transformed for better.

There are numerous departments and functions within Ericsson. The department of **Network Engineering** is one such department that plays an important role within the company to build and expand networks, support latest services and also to blend and deal with different technologies. The company comprises of a humongous workforce amongst which the *Network Engineering function* itself has a strong **Workforce of 5000 plus** knowledge workers including **service engineers, solution architects** and **project managers**.

Organization Structure in Ericsson NE

The Organization structure followed in Ericsson is **Matrix Structure** in which the reporting relationships are arranged in the form of a **matrix or a grid** and that is why the name. The main purpose of this kind of arrangement is to encourage horizontal flow of skills and information.



Its different from the more traditional structures based on hierarchy. In Matrix, an employee usually has a *dual reporting*. The authority flows horizontally and vertically both. It necessitates multiple command and control structure and has a great impact on the organizational culture and behavioural patterns of the employees. The strength of Matrix is Employees can contribute to multiple projects without leaving their current position in the organization.

Workforce Planning in Ericsson

Workforce planning and talent management in Ericsson is a complicated phenomenon and managing a huge Workforce requires great deal of attention and effort. To cater to this extremely challenging task, in the year 2013 NEON i.e. Network Engineering Online Tool was developed by a small team in the function of Network Engineering (NE) based in DLF Cyber city,

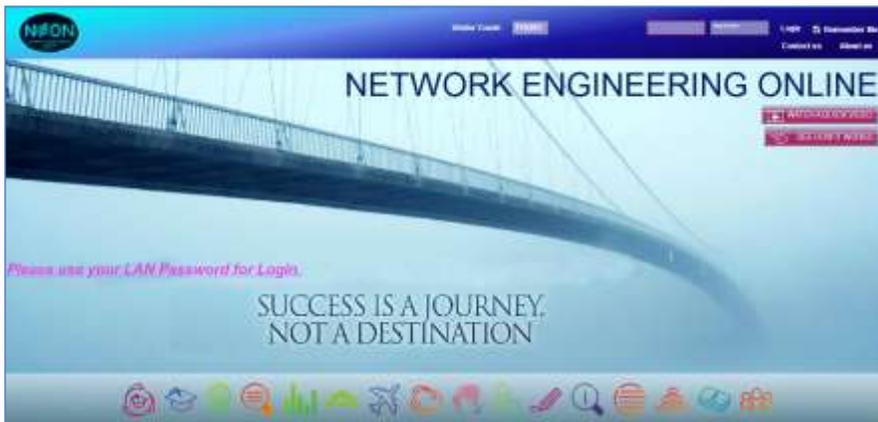
Gurgaon, Haryana, India in order to facilitate first-rate handling of large volume of off shoring business at EGI (NE) after lot of speculation and anticipation.

Being the largest NE organization which caters to providing managed services, project related services and system integration business lines; it was imperative that it had the sufficient talent pool and skilled workers. And this study explores how the NEON tool enables the same.

Talent Management and Role of NEON in Network Engineering

There are 10 different regions across the globe. Each region has got Workforce Planning department. This department prepares the Workforce Plan based on the on-going opportunities as well as the business in pipeline. It is responsible **to ascertain the various competence & skillset requirement** which these opportunities demand for its deliveries.

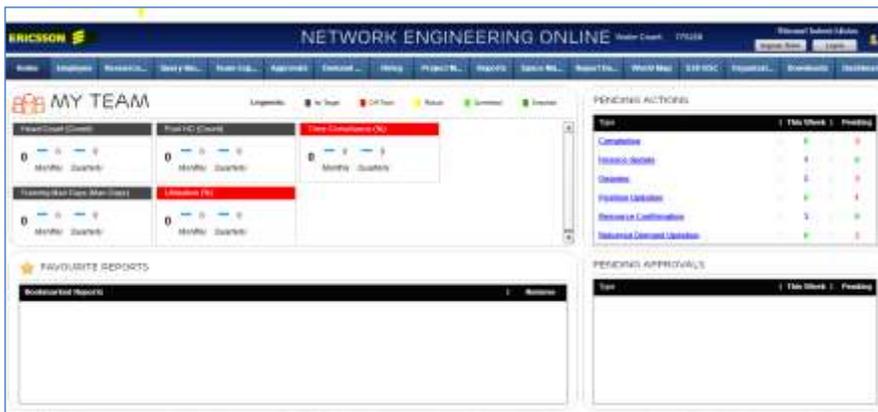
This department, based on the total requirement of the resources gives a forecast for off-shoring to EGI. And within EGI various service delivery units picks up the respective business lines/competence domains forecast and prepare for resource fulfilment either through existing pool or through new hiring.



The birth of NEON lies in the fact that, they have a large volume of Off shoring business to handle at Ericsson Global India Pvt.ltd (Network Engineering)-EGI (NE).The Head of Network Engineering felt the need of a tool to facilitate better handling of the workforce as the resource was too huge to be handled by the HR department alone.

Other viable options included SAP which enables ERP with the help of modules. It incorporates an HR module for workforce planning. The only major downside was that the implementation was extremely expensive and customizing the same took a lot of time and money as well. Similarly Salesforce.com was another avenue to be explored.

After a lot of brainstorming and weighing the available options within the NE it was decided that a *home grown solution* will be better in terms of **adaptability**, **cost** and **interfacing** with the existing system.



It is the largest NE organization which provides services into managed services and project related services and system integration business lines. It's a remote/on-site delivery model for customer units, in parts of 10 different regions across the Globe. It comprises of strong 5000plus workforce with service engineers, solution architects and project managers.

Hence looking at the complex matrix of the region, business lines and to predict and determine resource demands & fulfillment, business trend analysis, achieve local efficiencies through tools and automation and control finances, there was an imperative need of deploying a tool which can give visibility to both the staff as well as the management, of the above mentioned parameters.

NE delivery managers, project managers register forecast/confirmed demand of resources into the NEON tool and await fulfillment by (Competence Domain). Each demand is given a unique project Id. This Id is maintained across the lifecycle of the project for resource, finances, quality and service evaluation. Since its inception the NEON tool has come a long way. Today NEON is a way of life within Network Engineering and gradually being accepted by interfacing organisation and support functions.

Proj ID	Project ID	Report	Parent ID	Priority	Start Date	End Date	Project Status	Reason	Resource	Role	Job Step	Location
100040	8151	100040	100040	1	05-07-2010	05-07-2010	Initiation				Job Step 1	Radio-Access Hardware
100040	8151	100040	100040	1	05-11-2010	05-11-2010	Resource Procured	EMR0246	U.S. Support Eng	stratify	Job Step 2	Core
100040	8151	100040	100040	1	05-19-2010	05-19-2010	Resource Procured	ESPC2244	Test Eng/Proj/Inf	stratify	Job Step 3	Radio-Access Hardware
100040	8151	100040	100040	1	12-19-2010	01-21-2011	Resource Procured	EMR0246	U.S. Support Eng	stratify	Job Step 4	Radio-Access Hardware
100040	8151	100040	100040	1	05-27-2010	05-27-2010	Initiation				Job Step 5	Core
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Resource Procured	EMR0246	U.S. Support Eng	stratify	Job Step 6	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 7	Core
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 8	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 9	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 10	Core
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 11	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 12	Core
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 13	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 14	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 15	Core
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 16	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 17	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 18	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 19	Radio-Access Hardware
100040	8151	100040	100040	1	08-11-2010	08-31-2010	Initiation				Job Step 20	Radio-Access Hardware

NEON-A Super hit

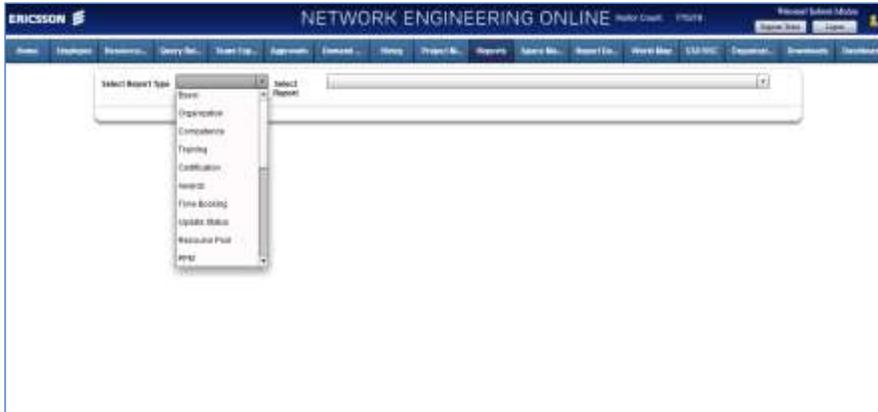
NEON has been **adding value** at various levels all over the NE organization by enabling at the click of a button, various **reports** giving **"dipstick measurements"** for the following:-

- *Competence Domain wise Demand forecast*

The Competence Domains can be classified as follows:-

- ✓ Radio-access,
- ✓ Core,
- ✓ Transmission,
- ✓ Project Office,
- ✓ Services and Consulting.

NEON helps forecast and fulfil the Demand each Competence Domain.



- *Region wise Demand forecast*

The various regions taken care of by Ericsson are as follows:-

- ✓ Region India,
 - ✓ Region Latin America,
 - ✓ North America,
 - ✓ Region Mediterranean,
 - ✓ Region western and central Europe,
 - ✓ Region North-east Asia,
 - ✓ Region South-east Asia and Oceania,
 - ✓ Region Middle-east,
 - ✓ Region Sub-Saharan Africa and Region East and Central Asia.
- NEON helps forecast and fulfill the Demand.

- *Technology wise Demand forecast*

As on date, the various technologies supported by Ericsson are as follows:

- ✓ GSM (2G),
 - ✓ WCDMA (3G), and
 - ✓ LTE (4G).
- NEON helps forecast and fulfill demand.

- *Job Stage wise Demand v/s fulfillment*

The different Job Stages in Ericsson are as follows:

- ✓ Job Stage-4(Engineer) to Job Stage-5(Senior Engineer)
- ✓ Job Stage-6(Specialist/Solution Architect) to Job Stage-7 (Senior Specialist/Senior Solution Architect)
- ✓ Job Stage-8 (Expert) to Job Stage-9(Senior Expert/Principle Consultant)

- *Vendor wise Demand forecast*

The different vendors are as follows:-

- ✓ Ericsson
- ✓ Nokia
- ✓ Alcatel Lucent
- ✓ Huawei
- ✓ ZTE
- ✓ Samsung
- ✓ Cisco
- ✓ Juniper
- ✓ Marconi
- ✓ ECI

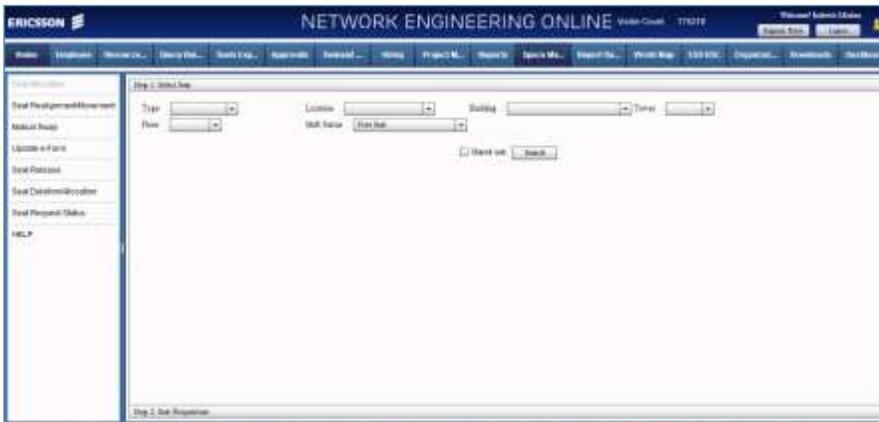
- *Service Business line wise Demand forecast*

The various Service Business lines are:-

- ✓ Managed Services
- ✓ Network Design & Optimization (NDO)
- ✓ Network Rollout(NRO)
- ✓ System Integration(SI)



- *Status of availability of service order/ Network Ids for time booking/ Finances*

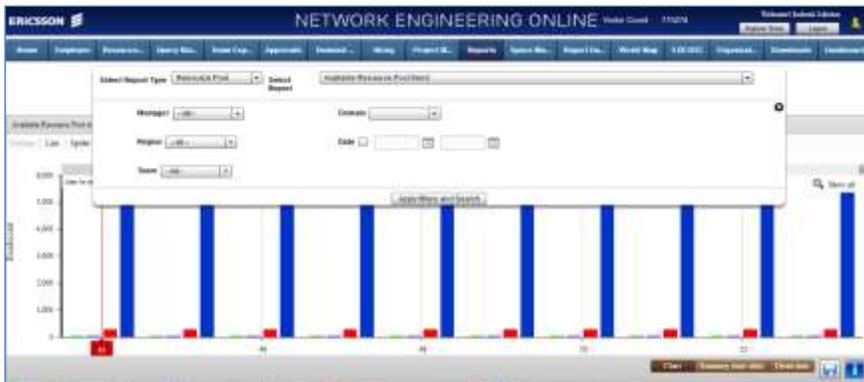


- *Budget v/s Incurred Cost for On-site assignments*
 Manual update of budget for each Project Id is done and on every day basis budget v/s cost incurred (time-booking done), number of hours booked on a particular network Id by a specific job stage resource

No. Of hours booked*Man hourly rate (MHR)*No. Of resources of a specific job stage

- *Resources Travel Request for On-site assignments*

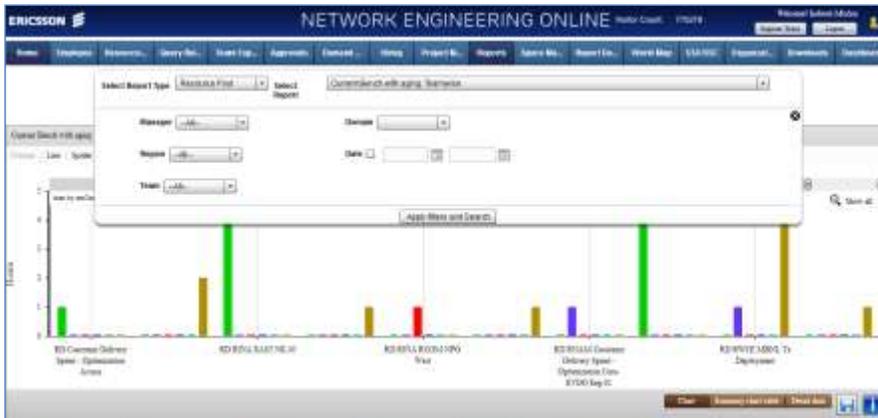
To control travel cost budget and track on-site assignment, travel request of all the resources is registered and approved in NEON.



- *Resource Competence, skill set and work experience*

The Curriculum vitae of each and every resource is maintained in a specific template/format which is easily searchable using keywords.

- *Project Network elements' Name Type and Coordinates and Activity performed list.*
Each of the Network elements which is managed has a unique identity (name) and each of the project delivered has its own unique scope (activities)



NEON tool helps publish the report out of the huge number of network elements which network elements are touched the most/ the least and which activities are performed the least.

CONCLUSION

As we can see even workforce planning is not untouched by the magic of ICT. Apart from facilitating infrastructure for almost all the industries, ICT is also transforming the workplaces and evolving the way we work. It can be seen that new innovations like the NEON and similar forms of developments are finding a greater audience, industries and hierarchies are being revolutionized and we are seeing a fundamental change in the way we communicate, socialize and take decisions together.

While the study concludes that more research is required to come up with better practices in talent management and workforce planning. It weighs the various workforce planning tools and provides managers contemplating the same with extensive resources and valuable information that will help them with valuable insights aiding to take the right decision timely.

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