



P&G's Logistics Revolution: Co-creating Value

"P&G has one of the most progressive procurement organizations on the planet. They consistently work to proactively address real and challenging issues that keep their organisation on the leading edge of business practices."¹

– Greg Shoemaker, Vice President for Central Direct Procurement at Hewlett Packard

"We're trying to make the supply chain into a growth engine for the company. A lot of the time, supply chain management is reactive, or passive, cost control. But we think there's also an opportunity for us also to have the supply chain create top-line growth as well as bottom-line performance."²

– *Financial Times*

Confronting the challenges of rising supplier costs, growing retailer prowess, intensifying competition, fickle consumer tastes and preferences in the consumer packaged goods industry, P&G gained a distinct competitive edge through a strengthened focus on supply network efficiencies. By making consumer the centre of all its core operations, P&G initiated Customer Driven Supply Network (CDSN) that starts from customer choice at the store shelf and works backwards towards product manufacture; a paradigm shift from forecast-based supply chain to the one based on real-time demand. P&G's relationship with Wal-Mart exemplifies the success of CDSN but given the complexities of P&G's size and scale, analysts remain sceptical about the success of P&G-Wal-Mart's pilot study with other retailers. Analysts are also dubious of the scope for success in exporting the model to developing markets wherein the industry dynamics are extremely contradictory.

¹ Paul, "2008 Medal of Professional Excellence: P&G is king of collaboration", <http://www.purchasing.com/article/CA6591887.html?nid=4019>, September 11th 2008

² Birchall Jonathan, "How P&G's logistics revolution supplied a new demand", <http://www.ft.com/cms/s/0/95fb6a66-6fe0-11dd-986f-0000779fd18c.html>, August 22nd 2008

This case study was written by Sai Prasanna under the guidance of R. Muthu Kumar, IBSCDC. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation. The case was compiled from published sources.

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Background Reading: Chapter 16, "Managing Marketing Channels", and Chapter 17, "Managing Retailing, Wholesaling and Market Logistics", *Marketing Management* (Philip Kotler)

Consumer Packaged Goods Industry – The Changing Dynamics

During the early 20th century, consumer packaged goods evolved to be a highly competitive industry with a large number of players vying for a greater market share (Exhibit I). Manufacturers, with their market prowess, focused extensively on reinforcing their strong brands and improving productivity. They established their dominance either by restructuring their brand portfolios through mergers and acquisitions or focusing on core brands. Though consolidation gave manufacturers significant global presence, focus on core brands made it difficult for retailers to avail price cuts. They even limited the quantity of high-demand products supplied/allotted to the retail stores, insisted on selling products in all sizes and packages and forced retailers to involve in promotional activities. For instance, P&G brought its extensive consumer research to retailers and insisted on increased shelf space for its brands. Lacking sophisticated point-of-sale systems, retailers could not dispute with P&G's analyses and resented its retail clout.

Exhibit I					
Consumer Packaged Goods Industry during the 19th century					
	Through the 1920s	1930s–1940s	1950s–1960s	1970s–1980s	1990s–2000s
Trends and Developments	<ul style="list-style-type: none"> Emergence of branded consumer products individual inventory/owners 	<ul style="list-style-type: none"> Move from single product to multiproduct firms Evolution of marketing strategy and consumer research International expansion 	<ul style="list-style-type: none"> New product innovation dominates Expansion into multiple categories 	<ul style="list-style-type: none"> Increasing geographic expansion Beginning of large-scale consolidation Brand extensions begin to take the place of product innovation 	<ul style="list-style-type: none"> Consolidation continues Regional/national business units dominate Cost-cutting efforts to counter retailer pricing power
Example: Kraft	<ul style="list-style-type: none"> Introduction of crackers Oscar Mayer opens a meat market 	<ul style="list-style-type: none"> Expansion into Germany Maxwell House coffee introduced in the U.K. 	<ul style="list-style-type: none"> Introduction of Jell-O, sliced processed cheese, Cool Whip, and Tang 	<ul style="list-style-type: none"> Nabisco merges with Standard Brands Philip Morris acquires General Foods Philip Morris acquires Kraft 	<ul style="list-style-type: none"> Brand extensions focused on reduced-fat versions of existing products Kraft merges with Nabisco
Example: P&G	<ul style="list-style-type: none"> 1837: William Procter establishes himself as a candlemaker; James Gamble apprentices himself to a soapmaker 	<ul style="list-style-type: none"> Introduction of Crisco Creation of brand management system 	<ul style="list-style-type: none"> Introduction of Crest toothpaste and Pampers disposable diapers Established first dedicated upstream R&D facility 	<ul style="list-style-type: none"> Acquisition of Richardson-Vicks Introduction of "2-in-1" shampoo and conditioner (Pert) 	<ul style="list-style-type: none"> Significant restructuring efforts Move to four-region global organizational structure Acquisition of Old Spice, Clairol, and Wella
Example: Gillette	<ul style="list-style-type: none"> 1901: King Gillette founds American Safety Razor Gillette obtains its first patent 	<ul style="list-style-type: none"> First radio ads Gillette Sweden incorporated U.K. manufacturing established Introduction of brushless shaving cream 	<ul style="list-style-type: none"> Adjustable safety razor Introduction of Foamy and Right Guard aerosol Acquisition of Papermate Acquisition of Braun Expansion into Europe/S. America 	<ul style="list-style-type: none"> Gel shaving cream Solid antiperspirant Erasermate Disposable razors Disposable lighters Acquisition of Oral-B 	<ul style="list-style-type: none"> Introduction of Sensor razor Acquisition of Duracell Functional Excellence program

Source: Lauster M.Steffen and Neely J., "The Core's Competence", <http://www.strategy-business.com/media/file/rr00018.pdf>, April 15th 2005

However, changing industry fortunes gravely affected the consumer packaged goods companies. Through aggressive expansions, these companies diversified into numerous unrelated businesses; Unilever, for instance, had 400 core brands. Proliferation of brand extensions cluttered the store shelves making it tough for brands to lure consumers. Further, regardless of geography, advances in technology, information and communications resulted in proliferation of media and marketing approaches, distribution channels, customer segments, products and brands increased market

complexities. Many new retail formats like – hypermarkets, shopping malls, discount stores and category killers – were developed. Discount retailers like Wal-Mart, for instance, revolutionised retail trade with rock-bottom prices, additional services and preferred credit terms. Wal-Mart eliminated intermediaries and transacted directly with the manufacturers through its customised Electronic Data Interchange (EDI) technology and bar code systems. Its high volumes and successful growth forced manufacturers to come to terms with Wal-Mart, which accounts for substantial part of their sales.

Thus, power shifted from manufacturers to retailers, who predominantly ruled the consumer markets. They even attacked manufacturers' prowess by forming alliances, mergers and acquisitions, developing private label brands, etc. Concurrent global economic boom brought significant changes in the consumers' lifestyle and income levels, which in turn broadened their choice of products and services. They looked for new and innovative products in attractive packaging offered at convenient locations at affordable prices. Retailers leveraged on this consumer boom by offering a wide range of products in their stores and only a handful of retailers controlled this huge consumer traffic. Thus, the increase in store traffic intensified manufacturers' battle for shelf space.

While manufacturers like P&G and Unilever met the diverse consumer needs through constant product and marketing innovations, retail pressures were eased by establishing direct links with the customers either through Internet or mail order; some even set up their own stores. The players even indulged in aggressive price war to lure customers. In due course, as the markets in developed countries began to mature, manufacturers sought growth in emerging markets of Latin America and Asia.

However, both manufacturers and retailers faced a number of complexities while exporting success strategies from developed to developing countries. Unlike developed countries, emerging markets were highly dominated by a large number of small players. Consumers, in developing countries, seek lower prices without compromising on quality. Thereby, simultaneously catering to value-driven high-income consumers of the developed countries as well as quality-driven yet price-sensitive and low-income segments of the developing countries remained a tough challenge. Further, the players were also confronted with problems like difficulty in obtaining reliable data on customers' tastes and buying behaviour (which was rather easy in developed economies), cultural barriers to market research, inefficient logistics and transportation infrastructure, vast and complex distribution systems, low income levels, etc.

Even retailers adopted obsolete formats of developed markets in the developing nations and retail formats like shopping malls, hypermarkets and specialty stores quickly sprang up. But despite their growing prowess, traditional retailers like mom-and-pop stores, street markets and small independent supermarkets still held their ground in emerging markets like India and posed a tough competition for the global retailers.

Amid such market scenario, companies like P&G strengthened their presence with greater focus on understanding consumers across geographies, building strong brands, and leveraging on scale and scope. However, it faced competitive pressures from local and global rivals as brand management and other marketing tactics were easily imitated. Hence, it sought a sustainable competitive edge in focused approach to consumer needs, their buying behaviour and go-to-market capabilities.

P&G's Supply Chain Management

P&G, with 171-year history, strengthened its global presence to become the world's biggest consumer goods company. It has an extensive brand portfolio in various categories like family and child care, beauty and personal care, health care, fabric and home care, snacks and coffee and pet care. Relentless innovation with end consumer in mind was at the heart of P&G's product development strategy and embraced open innovation through 'Connect + DevelopSM' approach. It collaborated with scientists, engineers and other experts from whom it invited innovative ideas on every aspect that impacts consumers' lives – from product and packaging to shopping and product usage experience. Even customers took an active part in P&G's innovation process and were involved in every step of a product or idea's initiation to launch.

Operating in more than 80 countries with over 300 brands, P&G tailored its marketing and communications to specific customer segments and used innovative web-based marketing techniques like conducting online consumer research and other concept studies. Such practices significantly reduced the time to collect and analyse consumer opinions and enabled P&G to quickly translate customer needs into products. It employed the services of 15,000 advertising agencies and other marketing-related organisations with an annual expenditure at nearly \$8 billion.

As the industry began to shift from plant-based sourcing to global corporate-based sourcing, consumer goods companies, which traditionally leveraged on in-person negotiations with suppliers, found the process slow and non-transparent. Further, P&G's logistics was highly fragmented because procurement decisions for outbound logistics were made in local and regional customer service units spread globally. Inbound logistics(,) on the other hand(,) were managed by its suppliers. Therefore, it had to rethink its operational strategies while sourcing thousands of chemicals, polymers, packaging, etc. for its diverse products.

Thus, P&G's operational overhaul included consolidation of back-office functions like human resources, finance, facilities management and IT into a single unit – Global Business Services (GBS), elimination of non-value added costs by outsourcing non-core operations and processes, setting up of Global Purchases division for sourcing P&G supplies, etc. The purchase division consolidated the sourcing locations at six regional centers – Cincinnati in the US, Geneva in Switzerland, Frankfurt in Germany, Guangzhou in China, Singapore and Caracas in Venezuela.

The purchase division worked in union with GBS and made R&D as the backbone of supply chain management. It bridged the gap between suppliers and R&D team by developing new product formulae and new packaging for the products. P&G's formulation for liquid laundry detergents like Tide, Gain, Cheer, Era and Dreft exemplified the same. These were packed in half the size of the original ones, however, with sufficient detergent to do the same load while saving on fuel consumption, warehouse space, quantity packed and the packaging material. A.G. Lafley, P&G's CEO and chairman, says, "P&G Purchases is much more than a cost-management leader. The organization is a strategic business partner that drives innovation, creates key alliances and enables business agility and financial flexibility. They are a true source of advantage."³ Such efforts coupled with the digital boom and Internet of the 21st century improved P&G's operational excellence.

³ "2008 Medal of Professional Excellence: P&G is king of collaboration", op.cit.

However, consumer goods companies like P&G, which sell their products directly to consumers through retailers were vulnerable to fickle consumer decisions. Various factors like packaging, advertising, point-of-sale promotions, product placement in the store shelves, etc. were found to have a profound impact on the customers' decision-making process. They may change their choice even within the time they walk down the store aisle and price-based decisions may take a back seat. Thereby, the necessity to influence consumers more effectively at the point-of-sale or 'Shopper marketing', as it is also called as, gained greater momentum as global retailers like Wal-Mart, Costco and Target accounted for substantial part of the consumer goods companies' sales.

Therefore, in the highly competitive industry of consumer packaged goods, it was essential for P&G to know consumers' pulse and understand their needs better than its competitors. It was crucial not only to offer innovative products that consumers look for but also ensure the speed of delivery to the market.

However, apart from internal complexities, P&G was pressurised with external factors like rising commodity and energy prices, impact of inflation on the consumer disposable income, global economic crisis, etc. Besides, higher raw-material prices could not be transferred to consumers in the form of higher prices.

Under such conditions, P&G turned towards cost-cutting strategies and realised that its success would lie in its ability to connect with the consumers and reach the fragmented retailers across the globe – from small street shops to mega malls; all without losing focus on bottom-line cost efficiencies. Hence, it reinvented its supply chain with a focused approach to the end user.

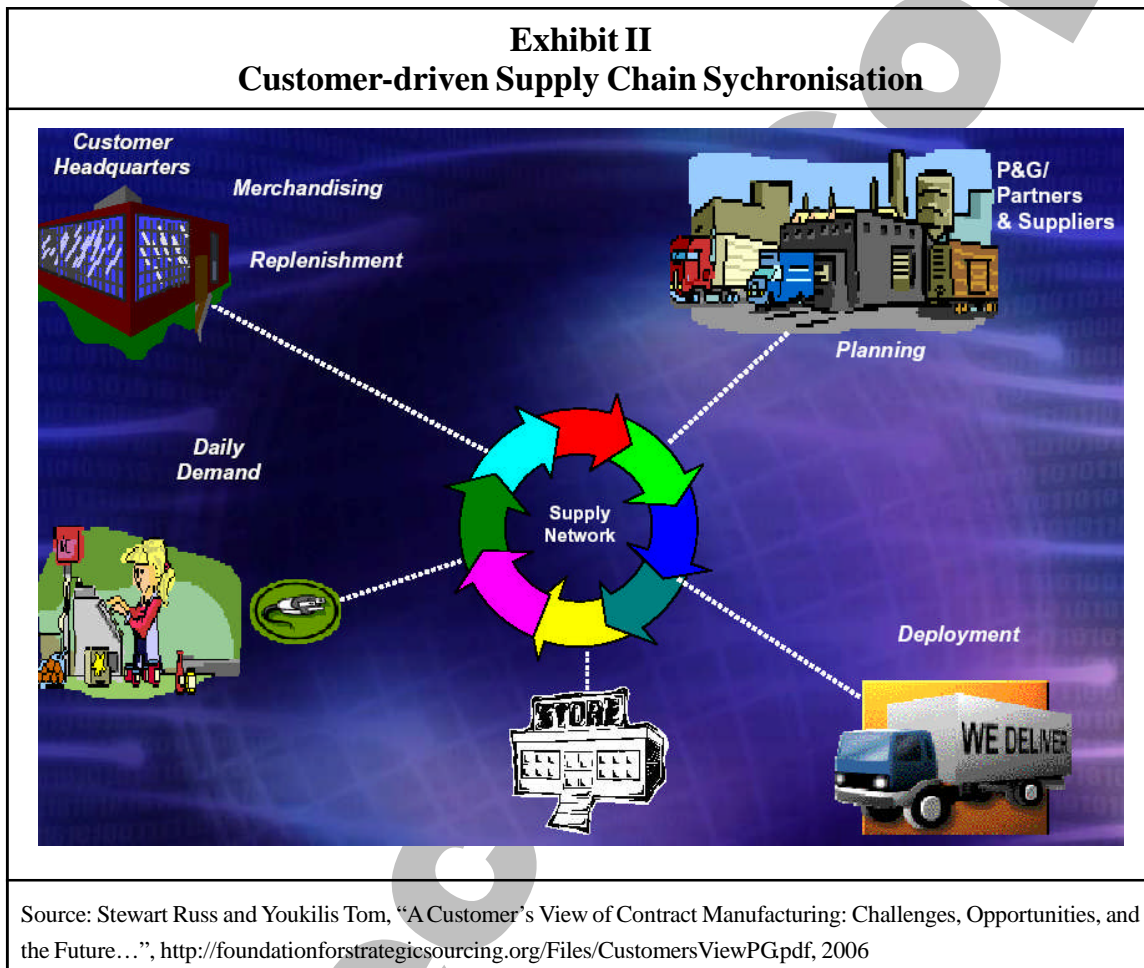
P&G's Logistics Revolution

P&G redefined its supply chain strategy under the leadership of Keith Harrison (Harrison), head of its global product supply division. Since his appointment in 2001, he focused on cutting costs and helped P&G achieve long-term growth in sales and earnings despite soaring input costs. Since 1995, P&G's annual cost savings accounted for more than \$1 billion and the figure rose to \$2 billion in 2007.⁴ He brought a paradigm shift in viewing supply chain management from being an add-on business model driven by forecasting to the one that focused on real-time demand. He used the term 'supply network' instead of 'supply chain' as the information flows in every possible direction rather than in a single horizontal line. He developed it not only as a core corporate concept but also as an operating strategy and called it 'Customer Driven Supply Network' (CDSN) (Exhibit II). In the past, supply chain process started with the procurement of supplies and then moved through the organisation to retailers. Now, through CDSN, P&G starts its supply chain from store shelves and moves back to its suppliers.

Mike Power, president of GBS, asserts, "We're changing our overall approach to supply chain management to become even more consumer centric. When consumers walk into a retail environment, they want the right product at the right time at the right place. They don't want to find it out of stock. That's a disappointment to them and a lost sale for us. Systems based on real-time data allow us to

⁴ Ibid.

deliver a much better result, meaning fewer out of stocks, on time delivery, more desirable products, and a very satisfied consumer.”⁵ For P&G products, the average level of out-of-stocks is between 10%–15% range. It means that 10%–15% of the time a consumer cannot find the specific product he or she is looking for. Harrison said that from 2005 to 2007, P&G has cut its out-of-stock level to half.⁶



Companies which win consumers choice are the ones which perform best at two critical ‘moments of truth’. The first moment of truth is when the consumer stands at the store shelf and makes the purchase decision on a particular brand. This became the centre for P&G’s CDSN, which works back through the supply network starting from the store shelf. The second moment of truth was when the consumers use the product and decide whether it was satisfactory or not. Therefore, the complex consumer goods supply chain system of P&G(?), linked by sophisticated technologies and logistics systems, was centred round the consumer.

⁵ “Procter & Gamble”, <http://www.cisco.com/warp/public/779/ibs/solutions/supply/pgcasestudy1.pdf>, 2001

⁶ Wohl Jessica, “P&G supply changes can lead to \$1 bln in sales”, <http://www.reuters.com/article/ConsumerandRetail07/idUSN1841019320070619>, June 19th 2007

Harrison asserts, "Our goal is to win at the consumer level, so the CDSN is a concept we have created to direct all of our activities to what is going on at the store-shelf level. We need to work off of real demand, so we produce what is actually selling, not what is forecast to sell."⁷

However, P&G was faced with several competing priorities – meeting consumer value equation amid rising supplier costs, balancing global scale benefits with the need to offer local differentiation, meeting the diverse challenges of developed and developing markets and above all, reaching the global large-scale retailers as well as the small and local street shops.

All this made P&G collaborate with its partners across the supply network to win consumers at the point of purchase. It implemented 'Web Order Management' – an online system, which enabled retailers not only to connect with P&G anytime, anywhere(,) but also access P&G's promotions, inventory, scheduling information and easily replenish stocks. P&G's partnership with Wal-Mart exemplifies the success of manufacturer-retailer relationships.

P&G–Wal-Mart relationship traced its origins to 1980s(,) when Wal-Mart decided to allow P&G and other suppliers to access customer sales data gathered by its Retail Link computer system. The partnership began as a means to enhance their business ties but was mired in various complexities in due course. P&G operated 12 internal product divisions and each division had separate sales manager, who approached Wal-Mart independently and never represented P&G as a whole. Further, P&G dictated Wal-Mart on quantities of P&G products to be sold and the pricing, while Wal-Mart warned P&G that it would either drop P&G products or allot poor shelf space. Thereby, Wal-Mart was reluctant to work with P&G due to its rigid and complicated processes.

This adversarial relationship began to change after the mid-1980s when P&G's vice president for sales, Lou Pritchett met Wal-Mart founder, Sam Walton for the first time. They decided to reexamine their relationship and developed a collective vision by assembling the top 10 officers of both the companies. A 12-member team from different functions was formed to convert this vision into an action plan, which included various initiatives like using multifunctional resources, joint scorecards and sophisticated technology. They also set up a data-interchange link, which enabled P&G manage Wal-Mart's P&G inventory. P&G monitored the shelves across all Wal-Mart stores by receiving continuous satellite data on sales and inventory from individual Wal-Mart stores. As and when P&G products ran low at Wal-Mart distribution centres, P&G would ship the goods, directly from the factory to the individual stores.

Pilot testing of this process was undertaken at P&G's factory in Missouri where real data on store sales was used not only to estimate demand but also to schedule replenishment deliveries for a single product on a single store basis. Thereby, instead of shipping the required quantity to Wal-Mart distribution centre and then break up for each store, P&G tailored its shipments according to the requirements of each store. Thereby, as and when P&G truck would arrive at Wal-Mart's distribution centre, shipments would be transferred to Wal-Mart truck to be sent to the individual stores without any necessity for storage. Electronic invoicing and electronic transfer of funds completed the transaction cycle. This sped the order-to-delivery cycle by nearly 10 days and Wal-Mart paid for P&G goods shortly after they were sold to the end customer.

⁷ "Procter & Gamble Uses Consumer Demand Info to Drive Supply Network", http://www.supplychainbrain.com/archives/02.06.bestrun_proctgamb.htm?adcode=5, February 2006

Industry experts observed that P&G was the first consumer goods company to use Retail Link data in this manner. Kevin O'Marah, logistics consultant at AMR Research(,) observes, "P&G is unusual in having actively demonstrated the importance of its supply chain as a driver of sales: P&G is in a leading position here . . . recognition of the importance of the supply chain goes all the way up to [chief executive AG] Lafley at the top. Elsewhere, the idea has spread throughout everyone's PowerPoint presentations, but not to everyone's practices yet."⁸

Despite access to such data by many companies, information was just held in blocks in their demand planning departments. Away from the traditional model that involved redundant activities of order processing, billing and payment, the CDSN helped attain a balance between stock-outs and excess inventory. *Financial Times* puts it, "An effective supply chain helps manufacturers by reducing a retailer's "out-of-stocks", which in turn prevents lost sales. Those sales also benefit the retailer, while efficient delivery of products to meet demand can also reduce the costs of holding inventory to the retailer."⁹

Harrison estimates that the CDSN process would result in substantial savings on inventory. Following the success of the CDSN process of a single product at Missouri plant, P&G plans to extend the same to other products in the same factory and is also negotiating with other retailers regarding the same.

However, P&G may face several challenges. Firstly, building trust with retailers and reaching out to millions of customers is a great task. The \$83.5 billion company (Exhibit III) has a total of 90,000 suppliers(,) who not only provide raw material to P&G's 150 manufacturing plants worldwide but also supply finished products for P&G's products like Mr. Clean Magic Eraser and Swiffer.

Exhibit III	
P&G – The World's Largest Consumer Packaged Goods Company	
Category	Amount (\$ billion)
Revenue	83.5
Total external spend	48
Global Business Services spend	6.7
Logistics spend	5
Compiled by the author from Paul, "2008 Medal of Professional Excellence: P&G is king of collaboration", http://www.purchasing.com/article/CA6591887.html?nid=4019 , September 11 th 2008	

Managing collaborative relationships with such scattered supply base would be no simple task. This is because complexities build up with substantial part of innovation at P&G products coming from external sources (owing to open innovation – Connect + DevelopSM) including its supply base. Further, exporting such processes to developing countries, where small and local retailers have strong foothold and technology advances at a slower pace, remains a constant challenge.

⁸ "How P&G's logistics revolution supplied a new demand", op.cit.

⁹ Ibid.

But Harrison is all-optimistic about the success of the CDSN and sought a 'mindset shift' towards supply network in P&G. In his words, "It's a culture shift for our sales organisation because they haven't thought about or understood supply chain capabilities. So this has been a learning curve for all of us. It's getting traction now and it's starting to go pretty well."¹⁰

According to him, incorporating supply network as a part of 'joint value creation plan' across the vast P&G supply network would yield tremendous benefits. He notes, "If I do something with my supply chain to reduce my customer's inventories, I want more than just the 'supplier of the year' plaque. How do we get that value that we've created at least partially reinvested in growing our business? Do we get sharper pricing, better features, more display, better shelving?"¹¹

Given the scenario – how can the supply networks result in 'joint value creation' for manufacturers, retailers as well as customers, remains to be seen.

¹⁰ "How P&G's logistics revolution supplied a new demand", op.cit.

¹¹ Ibid.

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