

CARD TOKENISATION TO BE IMPLEMENTED FROM OCTOBER 1, NO FURTHER EXTENSION SIGNALS RBI

- The Reserve Bank of India on Friday signalled that it would not extend the October 1, deadline for implementation for tokenisation of card based payments. Deputy governor T Rabi Sankar told reporters that the central bank would not hold back innovation because a few stakeholders weren't prepared for implementation.
- Tokenization is the process of replacing sensitive data with unique identification symbols that retain all the essential information about the data without compromising its security. Tokenization, which seeks to minimize the amount of data a business needs to keep on hand, has become a popular way for small and midsize businesses to bolster the security of credit card and e-commerce transactions while minimizing the cost and complexity of compliance with industry standards and government regulations.

Examples of tokenization

Tokenization technology can, in theory, be used with sensitive data of all kinds, including bank transactions, medical records, criminal records, vehicle driver information, loan applications, stock trading and voter registration. For the most part, any system a surrogate may use as a stand-in for sensitive information can benefit from tokenization.

Tokenization is often used to protect credit card data, bank account information and other sensitive data handled by a payment processor. Payment processing use cases that tokenize sensitive credit card information include:

- mobile wallets like Android Pay and Apple Pay;
- e-commerce sites; and
- businesses that keep a customer's card on file.

How tokenization works

Tokenization substitutes sensitive information with equivalent nonsensitive information. The nonsensitive, replacement information is called a token.

Tokens can be created in several ways:

- Using a mathematically reversible cryptographic function with a key.
- Using a nonreversible function such as a hash function.
- Using an index function or randomly generated number.

As a result, the token becomes the exposed information, and the sensitive information that the token stands in for is stored safely in a centralized server known as a *token vault*. The token vault is the only place where the original information can be mapped back to its corresponding token.

Some tokenization is vaultless. Instead of storing the sensitive information in a secure database, vaultless tokens are stored using an algorithm. If the token is reversible, then the original sensitive information is generally not stored in a vault.

Here is one real-world example of how tokenization with a token vault works works.

- A customer provides their payment details at a point-of-sale (POS) system or online checkout form.

- The details, or data, are substituted with a randomly generated token, which is generated in most cases by the merchant's payment gateway.
- The tokenized information is then encrypted and sent to a payment processor. The original sensitive payment information is stored in a token vault in the merchant's payment gateway. This is the only place where a token can be mapped to the information it represents.
- The tokenized information is encrypted again by the payment processor before being sent for final verification.

RUSSIA ANNEXES 4 REGIONS IN UKRAINE

Russian President Vladimir Putin presided over a ceremony to formally annex four Ukrainian regions.

Key facts

- Eight years following the Russian annexation of Crimea, Moscow has captured four more Ukrainian territories – Donetsk, Luhansk, Zaporizhzhia and Kherson regions.
- Earlier, Russia organized a referendum on Russia's administration of these regions.
- Kremlin claimed that residents of these regions overwhelmingly supported their regions formally becoming part of Russia.
- These referendums are considered by the West as illegal and rigged and were orchestrated by the Russian Government.
- Russian President Vladimir Putin has signed "accession treaties" to formalize these annexations at a ceremony in Grand Kremlin Palace in Moscow in the presence of Russia's political elites.
- With the formal annexation of Kherson, Zaporizhzhia, Donetsk and Luhansk, Russia controls nearly 15 per cent of Ukrainian territory.
- Russia does not fully control these regions since Ukrainian forces have reclaimed several areas that were earlier captured by Russia.
- In terms of total area, Russia will control over 90,000 square kilometers of Ukraine's total land area. This is almost equivalent to the size of countries like Portugal or Jordan.
- It is equivalent to Austria and Belgium combined or Denmark, Belgium and the Netherlands combined or 30 per cent of Germany's territory.
- It is also 50 per cent of the size of the United Kingdom.
- If Crimea, a Ukrainian territory annexed in 2014, is also included, Moscow has control over 107,000 sq km of Ukraine's territory.
- This makes it the largest forced annexation in Europe since the Second World War.
- The four recently annexed Ukrainian regions have historic ties with Russia, with Luhansk and Donetsk having large proportion of population speaking Russian and ethnically Russian.
- These regions opposed Ukraine increasing its ties with the West.



- Now, Ukraine is planning to fight to reclaim its lost territories and fast-track its membership to NATO
- The Western countries have announced that they will never recognize the Russian claims over these territories.

36th National Games

Prime Minister Narendra Modi recently inaugurated the **36th National Games in Ahmedabad, Gujarat.**

Key facts

- The 2022 National Games of India will be held from September 29 to October 12 this year.
- Also known as Gujarat 2022, it will be organized in Ahmedabad, Gandhinagar, Surat, Vadodara, Rajkot and Bhavnagar.
- The event will include sports such as athletics, field hockey, football, volleyball, table tennis, skateboarding, kabaddi, mallakhamba etc.
- Teams from 28 states and 8 union territories are expected to take part in this event.
- A team representing the Indian Armed Forces will also participate in Gujarat 2022.
- The two new UTs – Ladakh and Dadra and Nagar Haveli and Daman and Diu – will make their debut at the National Games this year.
- The last edition of these games was held in Kerala in 2015.



About National Games

The National Games traces its origins to the Olympic Movement, which became highly popular in India in the 1920s. The National Games of India was organized as the Indian Olympic Games in the initial years. Since the 9th edition of the 1924 Indian Olympic Games in Lahore, these games have been held every two years in major cities of India. In 1940, the Indian Olympic Games was organized as National Games. It involves competition between sportsmen from various parts of the country. The city of Lucknow in Uttar Pradesh hosted the inaugural edition of the National Games in Independent India. These games' duration and regulations are within the jurisdiction of the Indian Olympics Association. The National Games must be conducted in such a way that they do not clash with the Olympic Games and Asian Games.

Indian Olympics Association

The Indian Olympics Association is responsible for choosing the athletes to represent India at the Olympics games, Asian Games and other international sports events. It is also responsible for managing the teams representing these events. It acts as the Indian Commonwealth Games Association, which is responsible for choosing athletes representing India at the quadrennial event of Commonwealth Games.

ICARIA: NEW CATFISH SPECIES

A new catfish species has been discovered by ICAR-NBFGR.

Key facts

- The new species of catfish belongs to the genus *Pangasius*.
- It was found in Mettur Dam in Salem district, Tamil Nadu, by the ICAR-National Bureau of Fish Genetic Resources (ICAR-NBFGR).
- It was discovered when a team of scientists headed by director of ICAR-NBFGR visited the Mettur Dam to study the difference between the species of catfish found upstream and downstream of the River Cauvery.
- The researchers made detailed morphological analysis, skeleton radiography and advanced molecular markers as well as the species delimitation computational techniques.
- Through this study, they found that *Pangasius* specimens from the river Cauvery are different from other species of the genus *Pangasius*.
- The newly discovered species has been christened *Icaria* after the ICAR-NBFGR's parent organization ICAR (Indian Council of Agricultural Research).
- The newly species is edible and the locals call it *aie keluthi* in Tamil.
- The holotype of this species is registered at the National Fish Museum and Repository of ICAR-NBFGR in Lucknow.
- The name of this species is registered in ZooBank – the online registration system of the International Commission on Zoological Nomenclature.
- The new species is different from other species of catfish by its small rounded vomerine and palatine tooth plates, longer maxillary and mandibular barbels, more vertebrae and smaller caudal peduncle depth.
- Catfish has high commercial value in aquaculture and wild capture fisheries.
- The discovery of the new species helps improve the strategy to manage, conserve and utilize this fish.



About Mettur Dam

The Mettur Dam is the largest dam in the southern state of Tamil Nadu. It is situated across the Cauvery River. It was built in 1934. It took over 9 years to complete this dam having the maximum height of 214 feet and width of 171 feet. It is the main source of irrigation in the Cauvery Delta Region in Tamil Nadu.

THE GLOBAL INNOVATION INDEX 2022

The Global Innovation Index 2022 was released recently by World Intellectual Property Organization (WIPO).

Key findings

- Switzerland topped the Global Innovation Index for the 12th consecutive year. It leads the world in innovation outputs and specifically in patents by origin, software spending, high-tech manufacturing and production as well as export complexity.

- The second position was held by the United States, followed by Sweden, the United Kingdom and the Netherlands.
- The ranking of the most innovative economies takes into consideration infrastructure and technology outputs, human and capital research, business sophistication etc.
- India has climbed 6 positions to 40th rank in the GII due to improvements in several parameters.
- India's performance is above average among the upper middle-income countries group in almost all innovation pillars, with exception to infrastructure, where the country scored below average.
- India is the top performer among the South Asian countries.
- It is the innovation leader in the lower middle-income group and it continues to lead the world in the information and communication technology (ICT) services exports.
- It is the top performer in indicators like venture capital receipt value, finance for startups and scaleups, graduates in science and engineering, labour productivity growth and domestic industry diversification.
- According to the report, India and Turkiye entered the top 40 for the first time, with Turkiye being ranked at 37th position.
- India has overtaken Vietnam (48th rank) as the top lower middle-income economy for innovation.
- The index held that middle-income countries China, Turkiye and India are changing the innovation landscape and Iran and Indonesia have the potential to boost innovation.
- China was ranked at 11th position in this index.



WIPO

World Intellectual Property Organization (WIPO) is one of the specialised agencies of the UN. It is involved in the promotion and protection of intellectual properties at the international level through collaborations with governments and international organizations. It started operating in 1970 after the 1967 Convention Establishing the World Intellectual Property Organization came into effect.