



Malware Kronos

A British cybersecurity researcher has pleaded guilty for **developing a malware named Kronos** aimed at **stealing banking information**.

- It can be noted that the same researcher was earlier hailed as a hero for **finding a “kill switch” to the WannaCry virus**.
 - WannaCry virus was a **cryptoransomware, also known as WannaCrypt**, which affected thousands of computers spread over 150 countries, **including India in May, 2017**.
- Kronos is a **type of Trojan**. Trojans are commonly spread via email attachments, and once downloaded, can give attackers free reign to snoop and steal sensitive information like financial data, emails, and passwords.
 - Kronos first appeared online on a **Russian underground forum in 2014**.

Security Threats on the Web

- **Distributed Denial of Service (DDoS)**
 - A Distributed Denial of Service (DDoS) attack is an **attempt made to take down a website or online service** by flooding it with **more traffic than server/network can accommodate**.
 - In a DDoS attack, the traffic can come from **hundreds or thousands of sources**, which makes it near-impossible to stop the attack simply by blocking a single IP address.
 - Sites also **struggle to differentiate between a legitimate user and attack traffic**.
 - A DDoS attack differs from a **Denial of Service (DoS) attack, which typically uses a single computer** and connection to flood a system or site.
- **Viruses**
 - A computer virus is a **type of malicious code or program written** to alter the way a computer operates and is designed to **spread from one computer to another**.
 - It requires **some user interaction to be initiated**. Computer viruses cannot reproduce and spread without programming such as a file or document.
- **Malware and Trojans**
 - Malware is a more generic term that can be used to refer to nefarious software, which has been specifically designed to disrupt or damage a computer system, while **trojans are programs that pretend to be something they're not, and include malicious additions**.
 - Trojans are often **bundled with legitimate software** (eg, downloaded via P2P or file-download sites) but keep the original software intact to avoid suspicion and allow the trojan to spread further.
 - The term '**spyware**' is a **sub-division of malware** and refers to those programs dedicated to stealing personal details (logins, passwords, personal info, etc) once they've found a way onto computer or phone.
- **Phishing**
 - It is an effort by **scammers to trick users into giving up personal information** that they can then use to access your bank accounts or credit cards. Phishers can reach users through email, text or even by phone.
 - The **core of phishing attacks is deception**. Each attacker is attempting to convince users that they are a **familiar person or brand**.
- **Ransomware**
 - Ransomware **prevents users from accessing their devices** and data until a certain

ransom is paid to its creator or risk losing access forever.

- Ransomware usually locks computers, encrypts the data on it and prevents software and apps from running.

▪ Worms

- A computer worm is a **type of malware that spreads copies of itself from computer to computer**. A worm can **replicate itself without any human interaction**, and it does not need to attach itself to a software program in order to cause damage.
- This makes **worms potentially more dangerous than viruses**, trojans or other malware, as **they're harder to contain**.
- While traditional anti-virus software will take care of a lot of the better-known viruses and trojans, the **ability to replicate itself to networked resources without any interaction makes containing a worm a much harder task**.

East Asian Birds Spotted in Andaman Islands

Researchers have sighted a number of East Asian birds in the Andaman and Nicobar Islands.

- The birds include **Horsfield's Bronze Cuckoo (*Chalcites basalis*)** which is native of Australia and New Guinea.
- Other birds are the **Zappey's Flycatcher (*Cyanoptila cumatilis*)** bird from China and **Javan Pond Heron (*Ardeola speciosa*)** which is usually found in Thailand and Cambodia.
- During their migration from north to south, these birds make a stopover at the Andaman and Nicobar islands. These birds use Andaman and Nicobar Islands for a few weeks rests before they can fly along the **East Asian-Australasian Flyway (EAAF)**.

Flyways

- Flyways are the **area used by a group of birds during their annual cycle** which includes their **breeding areas, stop over areas and wintering areas**.
- There are **nine flyways** in the world. Three of the nine flyways pass through Indian Subcontinent:
 - **Central Asian Flyway (CAF)**
 - This is a migration route, covering over 30 countries, for different waterbirds linking their northernmost breeding grounds in Russia (Siberia) to the southernmost non-breeding (wintering) grounds in West and South Asia, the Maldives and British Indian Ocean Territory.
 - India has a strategic role in the flyway, as it provides critical stopover sites to over 90% of the bird species known to use this migratory route
 - **East Asian Australasian Flyway (EAAF)**
 - The East Asia/Australasia Flyway extends from Arctic Russia and North America to the southern limits of Australia and New Zealand.
 - It encompasses large parts of East Asia, all of Southeast Asia and includes eastern India and the Andaman and Nicobar Islands.
 - **Asian East African Flyway (AEAF)**
 - The Asian East African Flyway extends from Arctic Russia to South Africa and Madagascar in Africa. The flyway pass cover area from west of Tibetan plateau and Himalayas including central Asia and West Asia
 - It also covers parts of north-western India.



Convention on the Conservation of Migratory Species of Wild Animals (CMS)

- It is an environmental treaty under the **aegis of the United Nations Environment Programme**.
 - CMS or **Bonn Convention** provides a global platform for the **conservation and sustainable use of migratory animals** and their **habitats**.
 - India is a party to the **CMS since 1st November 1983**.
 - **Raptor MoU**
 - Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia is also known as Raptor MoU
 - Raptors MoU is an **agreement under CMS**.
 - It aims to **promote coordinated actions to maintain the favorable conservation status of migratory birds of prey** (raptors) throughout their range in the African-Eurasian region
 - **India is a signatory** to Raptor MoU. It is **not legally binding**.
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Earth Day

Earth Day is an annual event, celebrated on **April 22**.

- Worldwide events are held to demonstrate **support for environmental protection**. The theme of Earth Day 2019 is **“Protect Our Species”**.
- It was first celebrated in 1970, and is now coordinated globally by the **Earth Day Network** and celebrated in more than 193 countries each year.
- The idea of commemorating such a day was propounded by **Gaylord Nelson, an American environmentalist and politician**.
- **According to the United Nations, International Earth Day is celebrated to remind each of us that the Earth and its ecosystems provide us with life and sustenance**.
- The Earth Day also recognizes a collective responsibility, as called for in the **1992 Rio Declaration (Earth Summit)**, to promote harmony with nature and the Earth to achieve a just balance among the economic, social and environmental needs of present and future generations of humanity.
- This day provides an opportunity to raise public awareness around the world to the challenges regarding the well-being of the planet and all the life it supports.

Earth Day Network

- Earth Day Network is a nonprofit organization whose mission is to diversify, educate and activate the environmental movement worldwide.
 - EDN main office is located in Washington DC, USA.
 - Recently the **Earth Hour 2019** was observed on March 30 from 8:30 pm to 9:30 pm local time with the theme **#Connect2Earth**.
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Important Facts For Prelims (22nd April 2019)

Easter

- The Prime Minister has greeted the people on the occasion of Easter.
- **Easter 2019 was observed on Sunday, April 21.** However, Easter falls on a **different date each year.**
- Easter is a Christian holiday that celebrates the belief in the **resurrection of Jesus Christ.**
- The holiday **concludes the "Passion of Christ,"** a series of events and holidays that **begins with Lent (a 40-day period of fasting, prayer and sacrifice)** and **ends with Holy Week, which includes Holy Thursday (the celebration of Jesus' Last Supper with his 12 Apostles), Good Friday (on which Jesus' crucifixion is observed), and Easter Sunday.**

Garia Puja Festival

- The Garia Puja is a major festival in **Tripura.**
- The festival is held from the **last day of the month of Chaitra** till the seventh day of the month of **Vaishakha according to Hindu calendar.**
- This festival is celebrated as a **harvest festival** by the **ethnic tribes Tripuris and Reangs.**
- In the festival, a **bamboo pole** is worshipped with flowers and garlands by the tribals which symbolize the **Lord Garia.**
- The ingredients used in the Puja are fowl chick, cotton thread, rice, eggs, etc. An important part of the Puja is sacrificing a fowl and offering the blood to the deity. After the sacrifice, the **Garia dance is performed.**

Agent Orange

- The US has launched a **clean-up project** at a former storage site for **Agent Orange in Vietnam.**
- Agent Orange was a **powerful herbicide used by U.S. military forces (Operation Ranch Hand)** during the Vietnam War in the 1960s.
- US forces sprayed **millions of liter of Agent Orange over South Vietnam between 1962 and 1971** in a bid to flush out Viet Cong communist guerrillas **by depriving them of tree cover and food.**
- The active ingredients in Agent Orange are a **combination of 2,4-dichlorophenoxyacetic acid (2,4-D) and 2,4,5-trichlorophenoxyacetic acid (2,4,5-T).**