



IAS PARLIAMENT

Information is Empowering
A Shankar IAS Academy Initiative

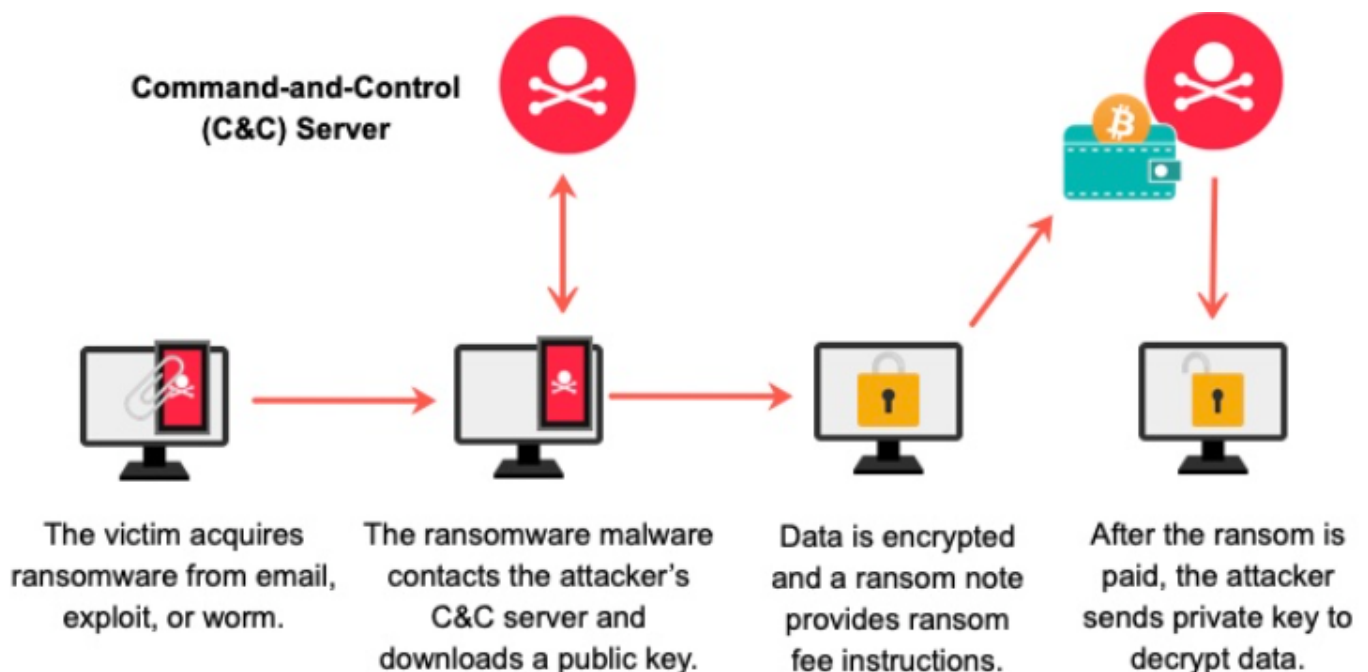
Ransomware attacks on Indian IT Firms

Why in news?

IT service provider HCL Technologies has shared that it was hit by a ransomware incident within a restricted cloud environment.

What is a ransomware?

- **Ransomware** - It is an extortion software designed to lock or encrypt a device or data on a system and then demand a ransom (money) for its release.
- Attackers usually leave behind a message with instructions on the ransom amount, mode of transfer, or instructions on how to contact them for further guidance.
- **Working**
 - Originates from a malicious link, email attachment, exploited vulnerability, attack campaign, or worm.
 - Installs in victim's machine.
 - Spreads to other devices on a network and connects to a command-and-control server controlled by the attacker.



- **Impact** - It can lead to data loss, productivity losses, and reputational damage.

Ransomware-as-a-service business models promote new generation of smaller and smarter gangs are likely to become more prevalent

How does it differ from malware?

Malware	Ransomware
Malware	Ransomware
Malware is a computer virus designed to replicate and copies itself from file to file or program to program.	Ransomware is a sub-type of malware from cryptovirology that blocks access to the system unless ransom is paid.
Malware typically piggybacks on malicious links, fraudulent email attachments, social media messages, etc.	Ransomware are spread through phishing emails containing malicious attachments or web-based messaging applications.
Malware is also referred to as virus, worm, Trojan horses, spyware, adware, and ransomware.	It's a new type of malware that presents itself in many ways to hold data to ransom.
The best way to protect the system from malware is to install antimalware programs.	The only way to protect your systems is to pay the ransom to the attackers.
It's a broad term that refers to all types of malicious programs.	Crypto and Locker are the two main types of ransomware.

What is the current status of ransomware attacks in India?

- **Indian Ransomware Report** - It is released by India's Computer Emergency Response Team (CERT-In).
 - A 51% increase in ransomware incidents was reported in first half of 2022 as compared to 2021.
 - A majority of these attacks target data centres, IT, and TeS sectors in the country.
- **State of Ransomware 2023 Report** -It is a 2023 study by Sophos, a cybersecurity company.
 - **Increase in ransomware attack** - Attack on organisations is up from 57% the previous year to 73%.
 - **Drop in successful encryption of data** - It is 77% of reported organisation, a drop from 78% the previous year.
 - **Ransom Paid** - 44% of organisations paid the ransom to retrieve their data.

- **Highest Impact** - It is in *education sector*, where 79% of higher education organizations surveyed and 80% of lower education organizations surveyed reported such incidents.

Ransomware Attacks

- **Recent attacks** - [Akira](#), [Wiperware](#) attacks from Russia and [LockBit Black](#).
- **Ransomware attacks in India** - Indian organisations are increasingly targeted by ransomware attacks.
- In 2023, a *US-based subsidiary of Infosys* was reportedly targeted by a ransomware attack while Indian drug manufacturer *Sun Pharma* was hit by a cyberattack.
- In 2022, a ransomware attack crippled AIIMS for days.

Why do attackers target IT organisations?

- **Repository of valuable data** - They hold sensitive information like personally identifiable data of users, intellectual property, access credentials, and even financial information.
- Higher the value for data, *higher the chances that the ransom will be paid*.
- **Higher vulnerability of the target** - If the data is leaked, it could lead to a drop in their value and replication of software, *devaluing the company thus threatening its revenue streams*.
- Successful attacks could potentially open the channel to target supply chains, adding pressure on companies to pay the ransom.
- **Easy target** - They are among the 1st to adopt new technologies and use *open architecture, which may not have the highest levels of protection* against cyberattacks, making them an easy target.

'Police' and 'Public Order' are State subjects as per the 7th Schedule of the Constitution of India. Hence States and UTs are responsible for cybercrime prevention, detection etc.

How to protect against ransomware?

- Cyber awareness training and education
- Continuous data backups
- Patching - Apply recent security updates on system or software.
- User authentication
- Reduce the attack surface - By addressing phishing messages, unpatched vulnerabilities, remote access solutions and mobile malware.
- Deploy anti-ransomware solution.

To know more about cybercrime prevention in India, click [here](#)

References

1. [The Hindu| Increased Ransomware Attacks in India](#)

2. [The Hindu| Ransomware statistics in India](#)
3. [Yubico | Image](#)



IAS PARLIAMENT

Information is Empowering

A Shankar IAS Academy Initiative