



Digest is compiled by Alain Louchez,
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CHRONICLE OF DIGITAL TRANSFORMATION (DT) THROUGH INTERNET OF THINGS TECHNOLOGIES

Some biweekly perspectives on DT from around the globe gathered by CDAIT - 50 added for this Digest (4000 entries since April 1, 2022) https://cdait.gatech.edu/sites/default/files/2025-08/Digital_Transformation_Through_IoT_Technologies_as-of-end-of-August-2025.pdf

GOVERNANCE & THE INTERNET OF THINGS

Ronald Elliott, "The New On-Prem Pivot: Rethinking IoT Device Management in a Security-First Era," IoT Business News, August 27, 2025 <https://iotbusinessnews.com/2025/08/27/27071-the-new-on-prem-pivot-rethinking-iot-device-management-in-a-security-first-era/>

Charles Paul, "IoT security challenges, issues and best practices," Security Boulevard, August 26, 2025 <https://securityboulevard.com/2025/08/iot-security-challenges-issues-and-best-practices/>

Dunstan Power, "Securing the Supply Chain: Protecting IP [Intellectual Property] in IoT Manufacturing," IoT Business News, August 25, 2025 <https://iotbusinessnews.com/2025/08/25/39692-securing-the-supply-chain-protecting-ip-in-iot-manufacturing/>

Joseph Salazar, "Surge in IoT Attacks Demands a New Layer of Wireless Defense," IoT World Today, August 20, 2025 <https://www.iotworldtoday.com/connectivity/surge-in-iot-attacks-demands-a-new-layer-of-wireless-defense>

Bryan Oliver, "Your devices are chatting. Are you in on the conversation?" Ontario Tech University, August 19, 2025 <https://news.ontariotechu.ca/archives/2025/08/your-devices-are-chatting-are-you-in-on-the-conversation.php>

Daniel Sukowsky, "Why OT monitoring is non-negotiable: taking control of industrial networks," IoT Insider, August 18, 2025 <https://www.iotinsider.com/iot-insights/technical-insights/why-ot-monitoring-is-non-negotiable-taking-control-of-industrial-networks/>

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Biweekly IoT News Digest (08/25 – 2)

IoT News and Market Reports

(Second Half of August 2025)

- Selected IoT-related announcements and featured activities/topics gathered by CDAIT from governments; agencies; consortia; alliances; associations; standards, research and other similar groups around the world – 16 entries: https://cdait.gatech.edu/sites/default/files/2025-08/IoT_News_Filings_August_2025_Second_Half.pdf
- Sample list of IoT-related market reports gathered by CDAIT – 50 entries: https://cdait.gatech.edu/sites/default/files/2025-08/IoT_Market_Reports_August%20_2025_Second_Half.pdf

Georgia Tech IoT-related Info/Research Noticed by CDAIT

- Joshi, Marvin, Charles A. Lynch, Kexin Hu, and Manos M. Tentzeris, "Enhancing Long-Range Battery-Free Communication: A Passive Lens-Enabled Broadband Harmonic mmID for Emerging IoT Systems," In 2025 IEEE/MTT-S International Microwave Symposium-IMS 2025, pp. 1107-1110. IEEE, published August 8, 2025 <https://ieeexplore.ieee.org/abstract/document/11103990>
- Chen, Xuesi, Ariel Goldner, Eren Yildiz, Ilan Mandel, Tingyu Cheng, Josiah Hester, and Udit Gupta, "From Component to System: Rethinking Edge Computing Design through a Carbon-Aware Lens," ACM SIGENERGY Energy Informatics Review 5, no. 2 (published August 6, 2025): 125-131 <https://dl.acm.org/doi/abs/10.1145/3757892.3757910>
- Rahimi, Sina, Marcelo Alvarez, Umberto Berardi, and Patrick Kastner, "Coupled Urban Physics in Microclimate Modeling: Validating and Enhancing Simulation Tools," Available at SSRN 5251486, posted May 12, 2025 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5251486

OF NOTE: The National Institute of Standards and Technology (NIST) has released "Ascon-Based Lightweight Cryptography Standards for Constrained Devices" to protect data created and transmitted by the Internet of Things and other electronics – Informational resources: NIST, "NIST Finalizes 'Lightweight Cryptography' Standard to Protect Small Devices," NIST, August 13, 2025 <https://www.nist.gov/news-events/news/2025/08/nist-finalizes-lightweight-cryptography-standard-protect-small-devices>; See also Juan Perez, "Cybersecurity Snapshot: Asset Inventories Key for OT Security, CISA Says, as NIST Issues Lightweight Algorithms to Secure IoT Devices," Security Boulevard, August 15, 2025 <https://securityboulevard.com/2025/08/cybersecurity-snapshot-asset-inventories-key-for-ot-security-cisa-says-as-nist-issues-lightweight-algorithms-to-secure-iot-devices/>

Special Reading Suggestions

- Emily Main, "AIoT is here: How intelligent systems are redefining the connected world," Electronics 360, August 28, 2025 <https://electronics360.globalspec.com/article/22543/aiot-is-here-how-intelligent-systems-are-redefining-the-connected-world>
- DD News (India) posting, "India to lead next wave of 5G, AI and IoT: PM Modi," DD News, August 25, 2025 <https://ddnews.gov.in/en/india-to-lead-next-wave-of-5g-ai-and-iot-pm-modi/>
- Charles Yeomans, "The Unintended Consequences of the IoT's Dramatic Growth," IoT Business News, August 21, 2025 <https://iotbusinessnews.com/2025/08/21/80787-the-unintended-consequences-of-the-iots-dramatic-growth/>
- Parth Pangtey, "Smart Homes, Smarter Healing: How IoT is Redefining Post-Treatment Care for Medical Tourists," Timestech, August 19, 2025 <https://timestech.in/smart-homes-smarter-healing-how-iot-is-redefining-post-treatment-care-for-medical-tourists/>
- Dr Francesca Boem, "Ensuring resilience in the IoT revolution," TechRadar, August 18, 2025 Ensuring resilience in the IoT revolution <https://www.techradar.com/pro/ensuring-resilience-in-the-iot-revolution>
- Elizabeth Morrison, "Agentic AI Set to Transform Industries in 2025 with IoT and Blockchain," WebProNews, August 18, 2025 <https://www.webpronews.com/agentic-ai-set-to-transform-industries-in-2025-with-iot-and-blockchain/>

Selected IoT Perspectives Generative AI and IoT

"The possibilities of interfacing Gen AI with real-time data from IoT are huge and can be applied to different industries. Gen AI will improve interface IoT devices, train models better, enhance the management of historical information and help users make better sense of IoT data. In becoming a knowledge bridge, the applications of Gen AI and IoT are numerous." Kedar Joglekar, "Generative AI: A knowledge bridge for IoT," Atos, July 29, 2025 <https://atos.net/en/blog/generative-ai-a-knowledge-bridge-for-iot>

- Gokul B. Naidu, "Using Generative AI to Prepare IoT Devices for the Unexpected," IoT for All, August 13, 2025 <https://www.iotforall.com/generative-ai-for-iot-device-testing>
- Dimitrios Spiliopoulos, Gabriel Verreault, and Gary Emmerton, "Maximizing the value of Smart Machines with generative AI and IoT," AWS, July 11, 2025 <https://aws.amazon.com/blogs/industries/maximizing-the-value-of-smart-machines-with-generative-ai-and-iot/>
- Dylan Martin, "2025 Internet Of Things 50: Taking Connected Intelligence To The Next Level - For the 2025 Internet of Things 50, CRN picked the coolest channel-friendly vendors that are delivering GenAI features and other kinds of innovative capabilities, whether they're focused on connectivity, hardware, industrial, security or software offerings," CRN, March 31, 2025 <https://www.crn.com/news/internet-of-things/2025/2025-internet-of-things-50-taking-connected-intelligence-to-the-next-level>
- Benson Chan, "The Generative AI opportunity for IoT (Internet of Things) Part Two," Strategy of Things, March 4, 2025 <https://strategyofthings.io/the-generative-ai-opportunity-for-iot-internet-of-things-part-two>
- Benson Chan, "The Generative AI opportunity for IoT (Internet of Things) Part One," Strategy of Things, March 4, 2025 <https://strategyofthings.io/the-generative-ai-opportunity-for-iot-internet-of-things-part-one>
- Joaquin Fernandez, "The leading generative AI companies," IoT Analytics, March 4, 2025 <https://iot-analytics.com/leading-generative-ai-companies/>
- Ilan Lifshitz, "How Generative AI and Ambient IoT Can Make Products Talk," AI Business, December 3, 2024 <https://aibusiness.com/generative-ai/how-generative-ai-and-ambient-iot-can-make-products-talk#close-modal>
- Yasser Alsaied, "How IoT-Generative AI Convergence Will Reshape Business Innovation," IoT World Today, October 31, 2024 <https://www.iotworldtoday.com/connectivity/how-iot-generative-ai-convergence-will-reshape-business-innovation>

Research background info (sample): P. Kaur, D. Gupta and M. Uppal, "Generative AI Meets IoT: A Bibliometric Mapping of Research and Development," 2025 10th International Conference on Signal Processing and Communication (ICSC), Noida, India, 2025, pp. 434-439, doi: 10.1109/ICSC64553.2025.10968966 (Date Added to IEEE Xplore: April 24, 2025) <https://ieeexplore.ieee.org/document/10968966>; Fabrizio Mangione, Claudio Savaglio, and Giancarlo Fortino, June 03-035, 2018 (published April 10, 2025), "Generative Artificial Intelligence for Internet of Things Computing: A Systematic Survey," copyright: ACM licensed, New York, NY, USA <https://arxiv.org/pdf/2504.07635v1>; Singh, Ajit, "Prospect of Internet of Things using Generative AI and Large Language Models," (February 06, 2025), Available at SSRN: <https://ssrn.com/abstract=5155269> or <http://dx.doi.org/10.2139/ssrn.5155269>; Mazhar, T., Khan, S., Shahzad, T. et al. <https://arxiv.org/pdf/2504.07635v1>; "Generative AI, IoT, and blockchain in healthcare: application, issues, and solutions," Discover Internet Things 5, 5 (published January 13, 2025). <https://doi.org/10.1007/s43926-025-00095-8>; Yan Lin Aung, Ivan Christian, Ye Dong, Xiaodong Ye, Sudipta Chattopadhyay, Jianying Zhou, "Generative AI for Internet of Things Security: Challenges and Opportunities," arXiv:2502.08886v1 [cs.CR], February 13, 2025 <https://doi.org/10.48550/arXiv.2502.08886>; W. Jiang, Y. Zhang, H. Han and J. Mu, "Generative AI for Consumer Internet of Things: Challenges and Opportunities," in IEEE Consumer Electronics Magazine, doi: 10.1109/MCE.2025.3532890 <https://ieeexplore.ieee.org/document/10850766>;



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