



Technical Report

ISO/TR 41016

Facility management — Overview of available technologies

*Facility management — Vue d'ensemble des technologies
disponibles*

**First edition
2024-04**

Contents

	Page
Foreword.....	v
Introduction.....	vi
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Scope of facility management technology.....	1
4.1 Facility management technology.....	1
4.2 Impact of application on facility management business goals.....	2
4.3 Golden thread initiative.....	2
4.4 Asset and facility management applications.....	2
4.5 Interfacing.....	2
4.6 Optimization systems.....	3
4.7 Facility management technology drivers.....	3
5 Key concepts: Domains in facility management technology.....	4
5.1 Ontologies.....	4
5.2 Conceptual landscape.....	5
5.3 Foundation domain pillars.....	5
5.4 Operating environment.....	6
5.5 Horizontal versus hierarchical structures.....	6
5.6 Grids and networks (FMTech periodic table reference: column 1).....	8
5.6.1 General.....	8
5.6.2 Networks (FMTech periodic table reference: MbN, 1.1; LAN, 1.2; WAN, 1.3).....	8
5.6.3 Utilities (FMTech periodic table reference: UTL, 1.4).....	9
5.7 Transactions, security and storage (FMTech periodic table reference: column 2).....	10
5.7.1 General.....	10
5.7.2 Biometrics (FMTech periodic table reference: Biom, 2.1).....	10
5.7.3 Cyber security (FMTech periodic table reference: CS, 2.2).....	10
5.7.4 Blockchain (FMTech periodic table reference: BC, 2.3).....	11
5.7.5 Backup (FMTech periodic table reference: BU, 2.5).....	11
5.7.6 Smart contracts (FMTech periodic table reference: SmC, 2.6).....	12
5.8 Automation, monitoring and delivery (FMTech periodic table reference: column 3).....	12
5.8.1 Robotics (FMTech periodic table reference: RBT, 3.1).....	12
5.8.2 Wearables (FMTech periodic table reference: Wbl, 3.3).....	12
5.8.3 Smart assets and digital experience monitoring (FMTech periodic table reference: SmA, 3.4; DEM, 3.5).....	12
5.9 Digital workplace (FMTech periodic table reference: column 4).....	13
5.9.1 General.....	13
5.9.2 Virtual reality and assistants (FMTech periodic table reference: AR, 4.1; VR, 4.2; VA, 4.3; 3DA 4.4).....	13
5.9.3 Smart workspaces.....	13
5.9.4 Operational applications (FMTech periodic table reference: OA, 4.5).....	14
5.10 Computer and data insights (FMTech periodic table reference: column 5).....	14
5.10.1 General.....	14
5.10.2 Computer vision and learning types (FMTech periodic table reference: CV, 5.1; ML, 5.2; CC, 5.3; DL, 5.5).....	14
5.10.3 Natural language processing (FMTech periodic table reference: NLP, 5.4).....	15
5.10.4 Deep learning and neural networks (FMTech periodic table reference: DL, 5.5; NN, 5.6).....	15
5.11 Information models and frameworks.....	16
5.11.1 General.....	16
5.11.2 Building information modelling and location referencing (FMTech periodic table reference: BIM, 6.1; GIS, 6.2).....	16
5.11.3 Whole life management (FMTech periodic table reference: WL, 6.5).....	17