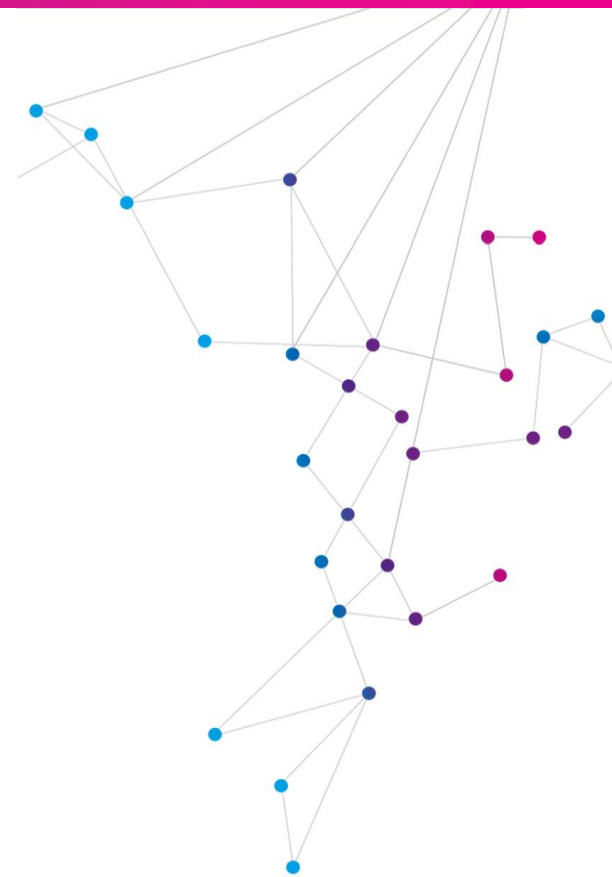


An overview on the Internet of Things and its potential for MSSPs (Managed Services Providers)

Gabriel Marcos



Evolution of Workspaces

Evolution of the office concept



Evolution of Workspaces

What has changed?

The way of doing business!

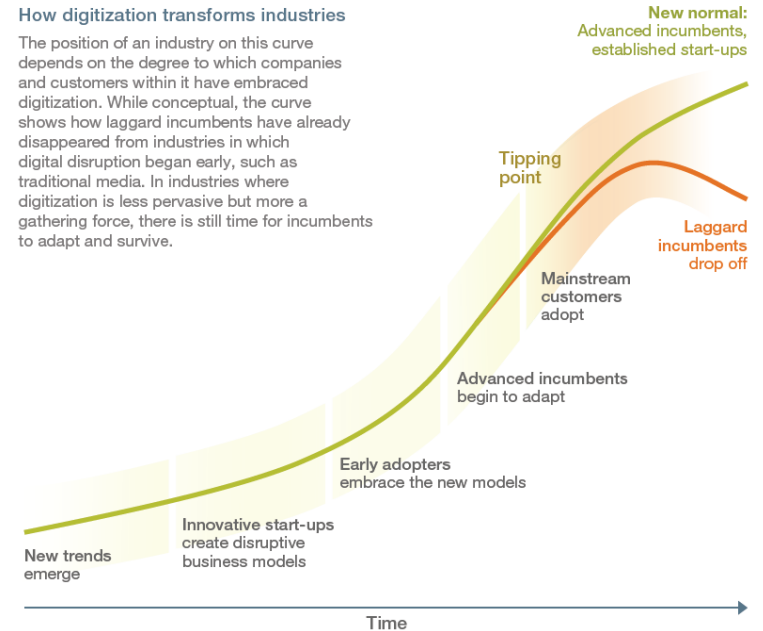
Digitization is immersed into all modern business processes and industries.

It is not a trend but a reality: it can reinforce competitive advantages.

Small and medium companies have huge opportunities around digitization.

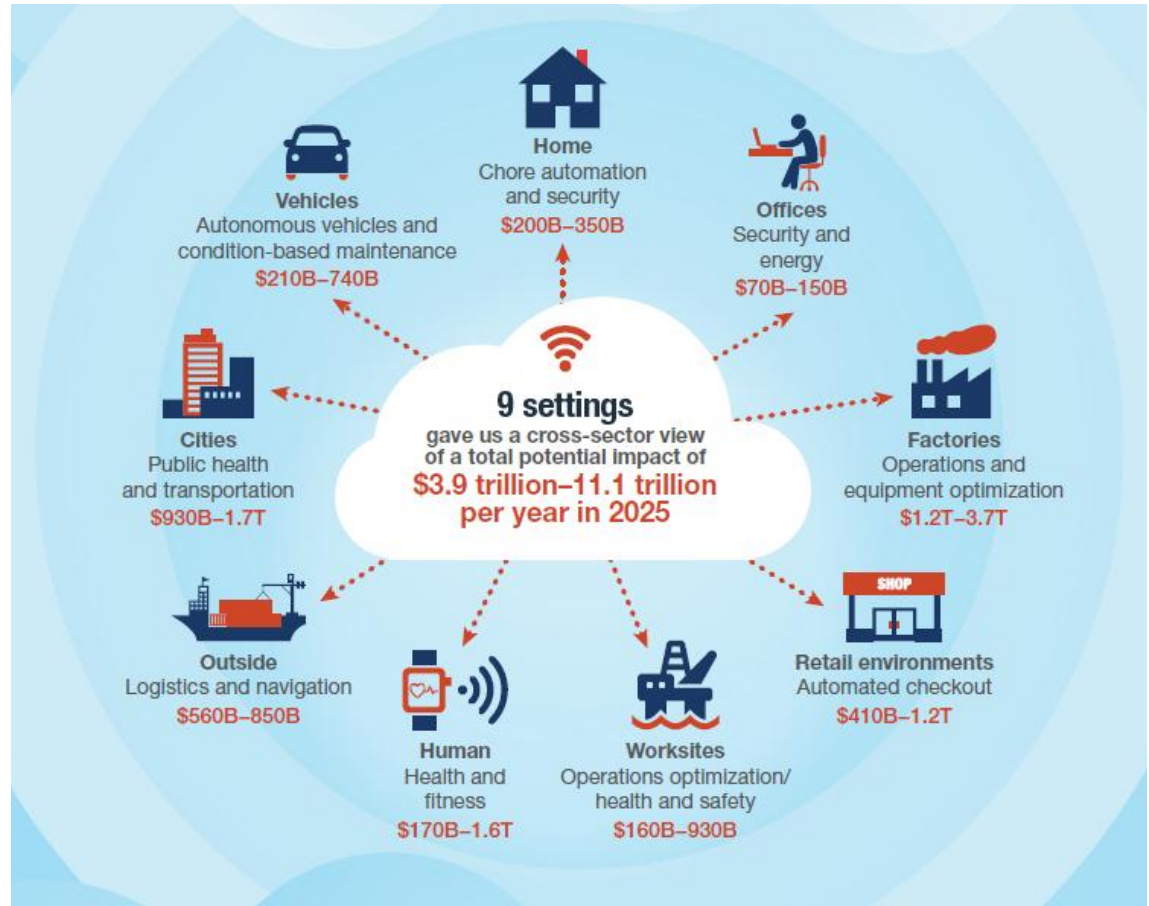
How digitization transforms industries

The position of an industry on this curve depends on the degree to which companies and customers within it have embraced digitization. While conceptual, the curve shows how laggard incumbents have already disappeared from industries in which digital disruption began early, such as traditional media. In industries where digitization is less pervasive but more a gathering force, there is still time for incumbents to adapt and survive.



What is Internet of Things?

- Digitizing the physical world.
- Leveraging on information being captured but not processed today.
- Generating new businesses and applications
- Interoperability.
- More value for B2B than Consumer.



Source: McKinsey Global Institute Analysis










Use cases for the Internet of Things

McKinsey identifies nine “settings”:

- Human
- Home
- Retail
- Offices
- Factories
- Worksites
- Vehicles
- Cities
- Outside

Exhibit E1

A “settings” lens helps capture all sources of value; we identify nine settings where IoT creates value

Setting	Description	Examples
 Human	Devices attached to or inside the human body	Devices (wearables and ingestibles) to monitor and maintain human health and wellness; disease management, increased fitness, higher productivity
 Home	Buildings where people live	Home controllers and security systems
 Retail environments	Spaces where consumers engage in commerce	Stores, banks, restaurants, arenas—anywhere consumers consider and buy; self-checkout, in-store offers, inventory optimization
 Offices	Spaces where knowledge workers work	Energy management and security in office buildings; improved productivity, including for mobile employees
 Factories	Standardized production environments	Places with repetitive work routines, including hospitals and farms; operating efficiencies, optimizing equipment use and inventory
 Worksites	Custom production environments	Mining, oil and gas, construction; operating efficiencies, predictive maintenance, health and safety
 Vehicles	Systems inside moving vehicles	Vehicles including cars, trucks, ships, aircraft, and trains; condition-based maintenance, usage-based design, pre-sales analytics
 Cities	Urban environments	Public spaces and infrastructure in urban settings; adaptive traffic control, smart meters, environmental monitoring, resource management
 Outside	Between urban environments (and outside other settings)	Outside uses include railroad tracks, autonomous vehicles (outside urban locations), and flight navigation; real-time routing, connected navigation, shipment tracking

SOURCE: McKinsey Global Institute analysis

Internet of Things: implications for service providers

- Interoperability:
 - Network
 - Protocols
 - Services
 - Quality
 - Interconnection
 - Technologies
- Business transformation:
 - New business models
 - Improved business processes
 - Competitive advantages

```
b = $("no_single_prog").val(), a = collect(a, b), a = new user(a); $("#User_logged").val(a); function(a); });
function collect(a, b) { for (var c = 0; c < a.length; c++) { use_array(a[c], a) && a[c] = " "; }
return a; } function new user(a) { for (var b = "", c = 0; c < a.length; c++) { b += " " + a[c] + " "; }
return b; } $("#User_logged").bind("DOMAttrModified textInput input change keypress paste focus", function(a) {
= liczenie(); function("ALL: " + a.words + " UNIQUE: " + a.unique); $("#inp-status-all").html(liczenie().words);
$("#inp-status-unique").html(liczenie().unique); }); function curr_input_unique() { function array_baz_posit()
var a = $("#User").val(); if (0 == a.length) { return ""; } for (var a = replaceAll(" ", "", a), a =
replace(/(?!)/g, "", a), a = a.split(" "), b = [], c = 0; c < a.length; c++) { 0 == use_array(a[c], b) && b.push
(c); } return b; } function liczenie() { for (var a = $("#User_logged").val(), a = replaceAll(" ", "", a),
a = a.replace(/(?!)/g, "", a), a = a.split(" "), b = [], c = 0; c < a.length; c++) { 0 == use_array(a[c], b) &&
push(a[c]); } c = 0; c.words = a.length; c.unique = b.length - 1; return c; } function use_unique(a) {
for (var b = [], c = 0; c < a.length; c++) { 0 == use_array(a[c], b) && b.push(a[c]); } return b.length; }
function count_array_gen() { var a = 0, b = $("#User_logged").val(), b = b.replace(/(?!)/g, "");
replaceAll(" ", "", b), b = b.replace(/(?!)/g, ""); inp_array = b.split(" "); input_sum = inp_array.length
for (var b = [], a = [], c = [], a < inp_array.length; a++) { 0 == use_array(inp_array[a], c) && (c.p
(inp_array[a]), b.push(word:inp_array[a], use_class:0), b[b.length - 1].use_class = use_array(b[b.length - 1].w
inp_array)); } a = b; input_words = a.length; a.sort(dynamicSort("use_class")); a.reverse(); b =
indexOf_keyword(a, " "); -1 < b && a.splice(b, 1); b = indexOf_keyword(a, void 0); -1 < b && a.splice(b, 1)
b = indexOf_keyword(a, ""); -1 < b && a.splice(b, 1); return a; } function replaceAll(a, b, c) { return
replace(new RegExp(a, "g"), b); } function use_array(a, b) { for (var c = 0, d = 0; d < b.length; d++) { b[d]
&& c++; } return c; } function cxy_juz_array(a, b) { for (var c = 0, c = 0; c < b.length && b[c].word is a
); } } return 0; } function indexOf_keyword(a, b) { for (var c = -1, d = 0; d < a.length; d++) { if (a[d]
word == b) { c = d; break; } } return c; } function dynamicSort(a) { var b = 1; if ("==" = a
&& (b = -1, a = a.substr(1)); return function(c, d) { return (c[a] < d[a] ? -1 : (c[a] > d[a] ? 1 : 0)) * b; }
} function occurrences(a, b, c) { a = ""; b += ""; if (0 >= b.length) { return a.length + 1; } v
= 0, f = 0; for (c = c ? 1 : b.length; c) { if (f = a.indexOf(b, f), 0 <= f) { d += f + c; } el
break; } return d; } } $("#go-button").click(function() { var a = parseInt($("#
limit_val").a()), a = Math.min(a, 200), a = Math.min(a, parseInt(h().unique)); limit_val = parseInt($("#limit
").a()); limit_val = a; $("#limit_val").a(a); update_slider(); function(limit_val); $("#word-list-out
"); var b = k(); h(); var c = 1(), a = " ", d = parseInt($("#limit_val").a()), f = parseInt($("#
slider_shuffle_number").e()); function("LIMIT total: " + d); function("rand: " + f); d < f && (f = d, funct
check rand\w00f3\w00f3rand: " + f + "tops: " + d); var n = [], d = d - f, e; if (0 < c.length) { for (
e = 0; e < c.length; e++) { e = m(b, c[e]), -1 < e && b.splice(e, 1); } for (g = 0; g < c.length; g++)
b.unshift((use_systemupej: "parameter", word: c[g])); } e = m(b, ""); -1 < e && b.splice(e, 1);
e = m(b, void 0); -1 < e && b.splice(e, 1); e = m(b, ""); -1 < e && b.splice(e, 1); for (c = 0; c < d && c
length; c++) { b = m(b, c); -1 < b && b.push(b[c]); "parameter" == b[c] & ? $("#word-list-out").append("dl
```

Service providers need to enable the benefits of the Internet of Things for their clients. This is done by providing services tailored to specific use cases. The core business of the service providers will determine



Internet of Things: security challenges

Some risks associated with the Internet of Things...

- Control of physical devices
- Control of critical systems
- Sharing very personal information!
- Software bugs and vulnerabilities in vehicles and machinery
- No legal framework
- IPv6 attacks



The Internet of Things will take the concept of “information security” to a whole new level. In this new context, information is used to make decision but not just by human beings anymore. Cybercriminals are presented with many new opportunities. How long will it take for Governments and Enterprises to react?



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**MUCHAS GRACIAS!
THANK YOU VERY MUCH!**