MISSION CRITICAL INTELLIGENCE

July, 2018

MOTOROLA SOLUTIONS

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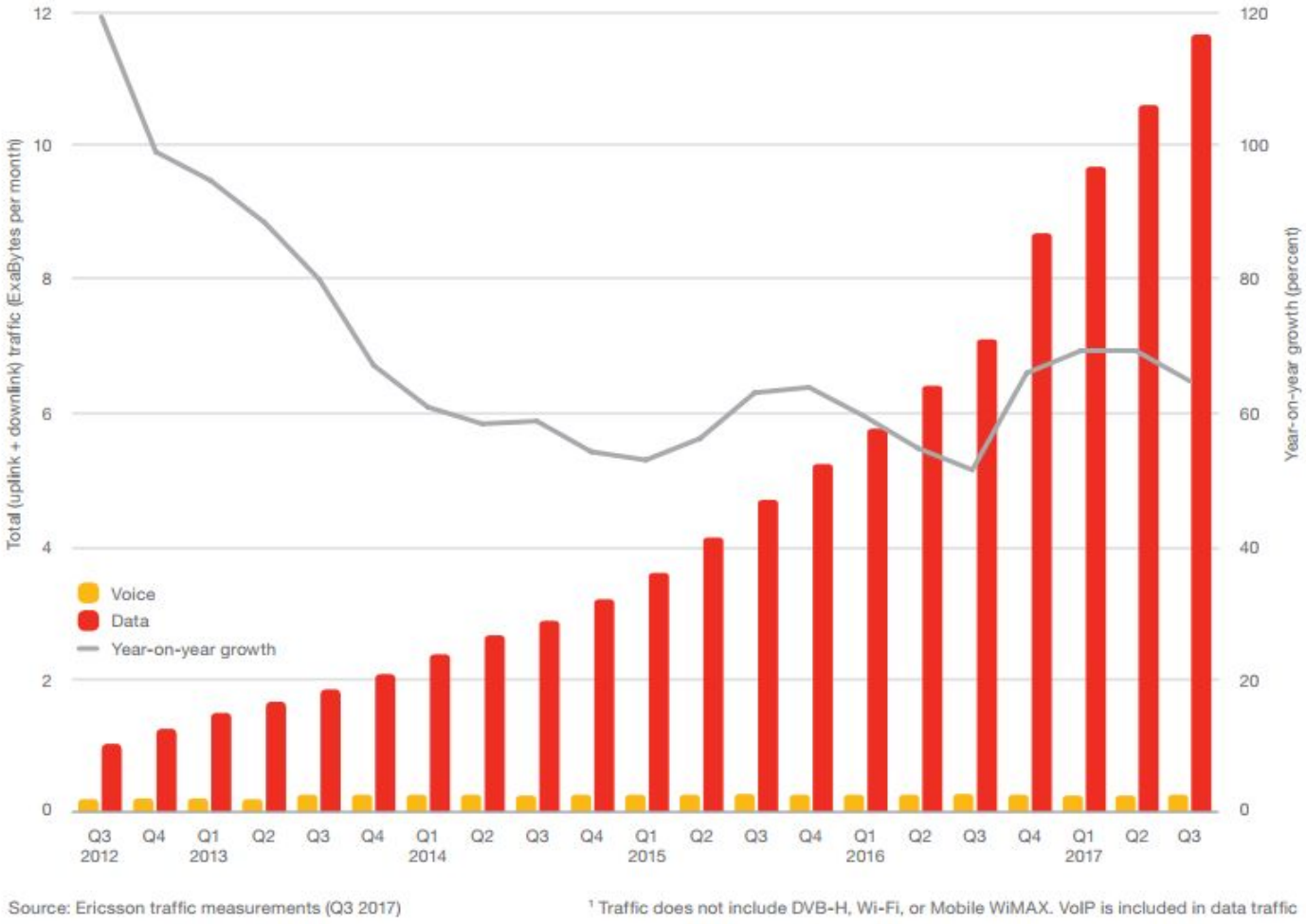
> “Change is the only certainty. Today is the slowest rate of change we will ever experience.”
>
> Jonathan MacDonald

> “We won’t experience 100 years of progress in the 21st century - it will be more like 20,000 years of progress (at today’s rate).”
>
> Ray Kurzweil

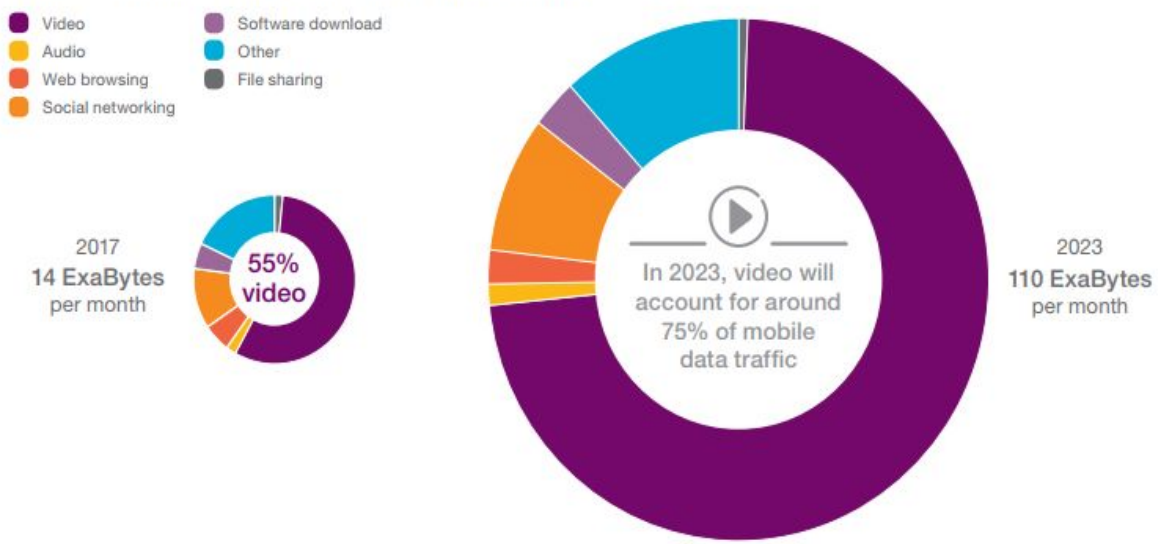
Mobile



Ericsson Mobility Report, Ericisson Inc.

Mobile

Mobile data traffic by application category per month (ExaBytes)



Mobile subscriptions by region and technology (percent)

1.3B People Use YouTube

300 Hours of Video Uploaded every Minute

5B Videos watched daily (1B Mobile)

By 2025, 50% of viewers under 32 will not subscribe to a pay-TV service

Ericsson Mobility Report, Ericsson Inc.

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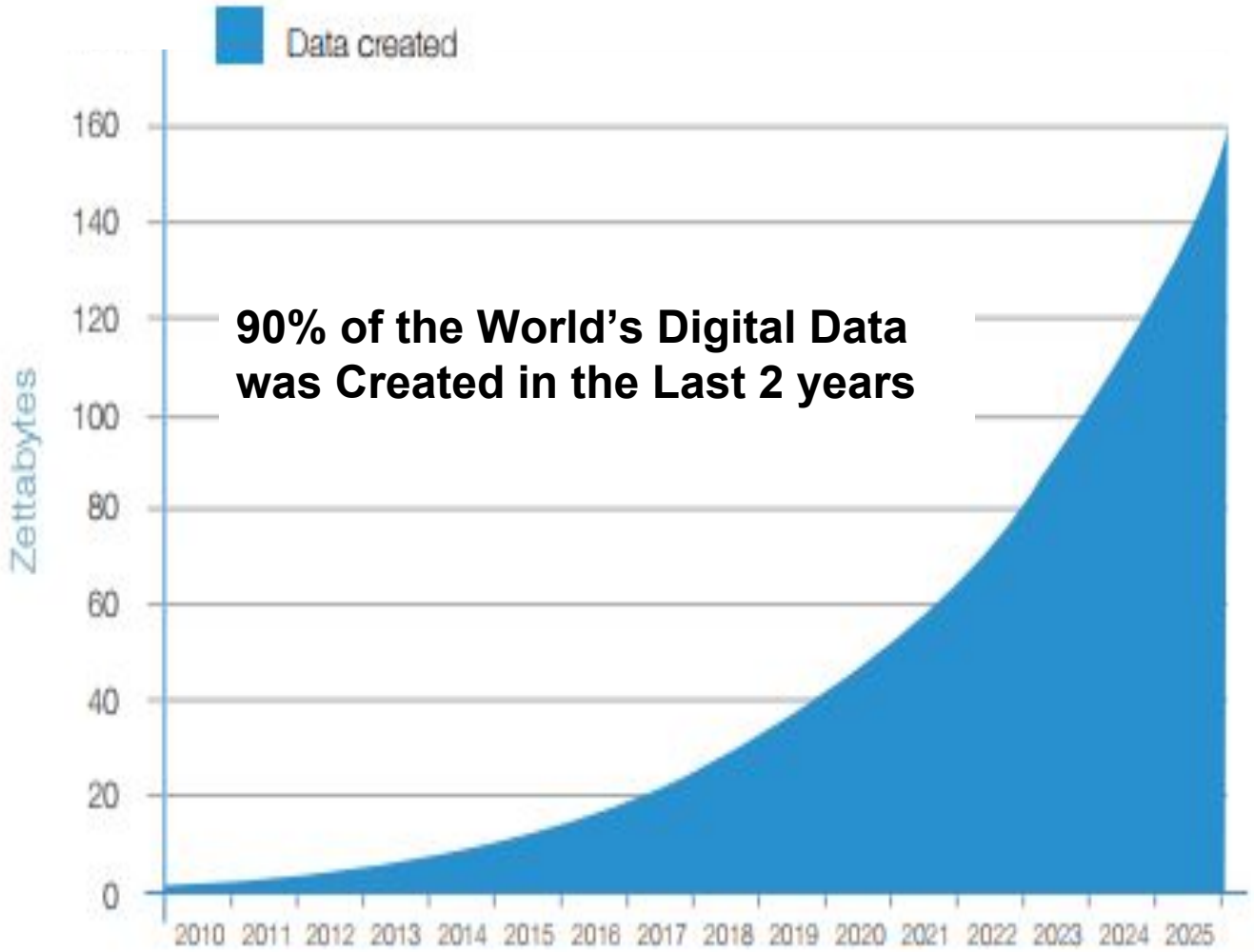
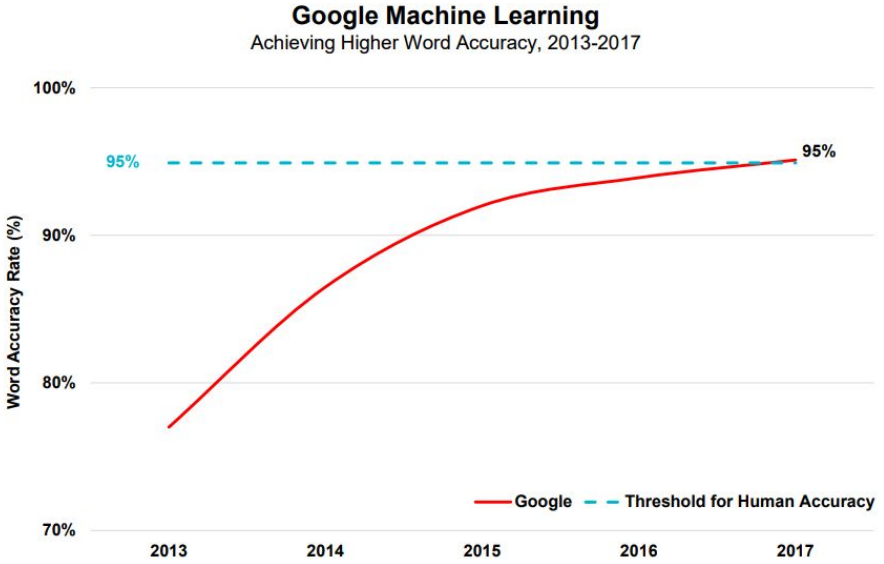
Data



90% of the World's Digital Data was Created in the Last 2 years

Voice Interface

Touch 1.0 > Touch 2.0 > Touch 3.0 > Voice



By 2020, 30% of web browsing sessions will be done without a screen.

2017 Internet Trends Report, Kleiner, Perkins, Caufield, Byers

AI could automate close to 50% of the jobs in the Western World within the next 2 Decades

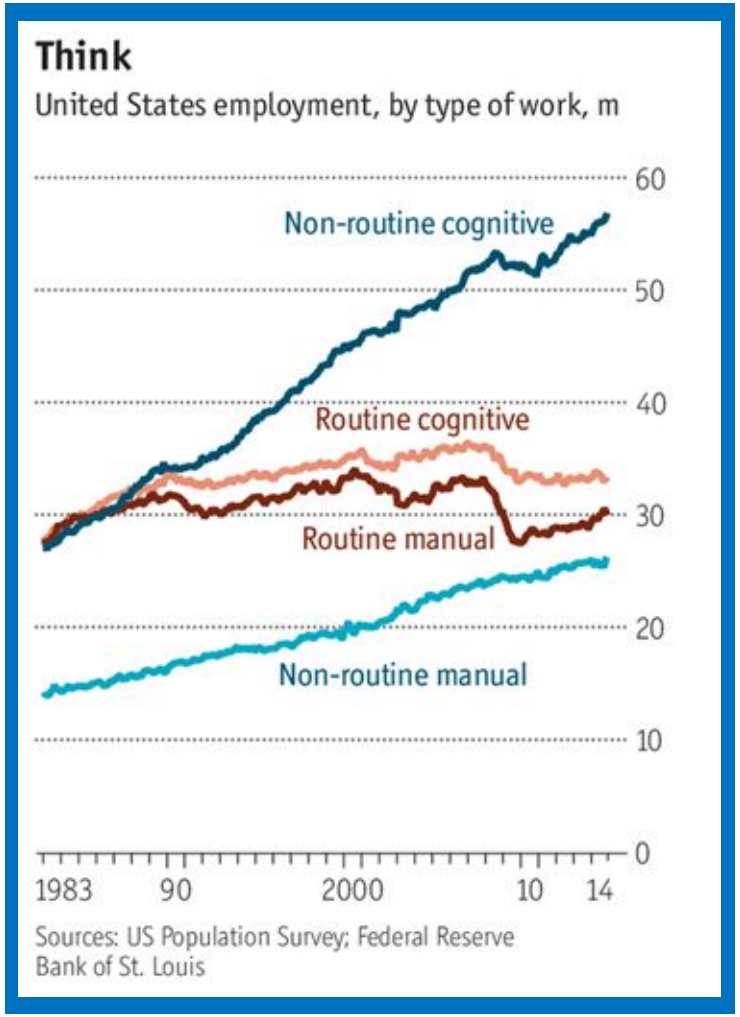
- The Economist

By 2020, AI-driven creation of “counterfeit reality”, or fake content, will outpace AI’s ability to detect it, fomenting digital distrust.

- Gartner’s Top 10 Predictions for IT in 2018 and Beyond

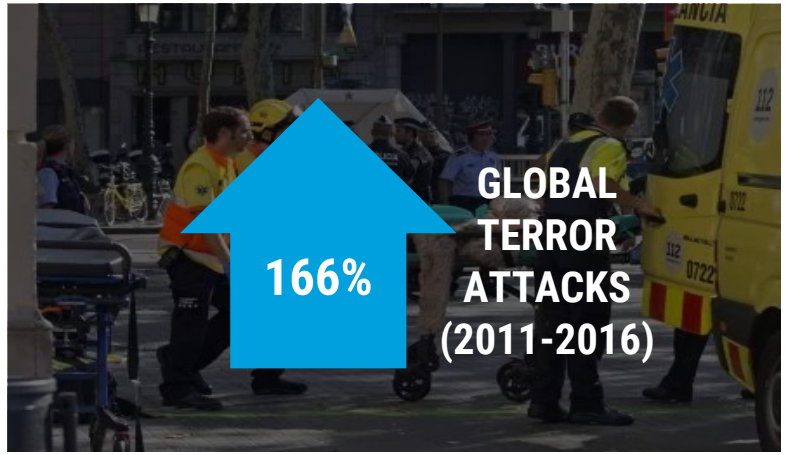
By 2022, most people in mature economies will consume more false information than true information.

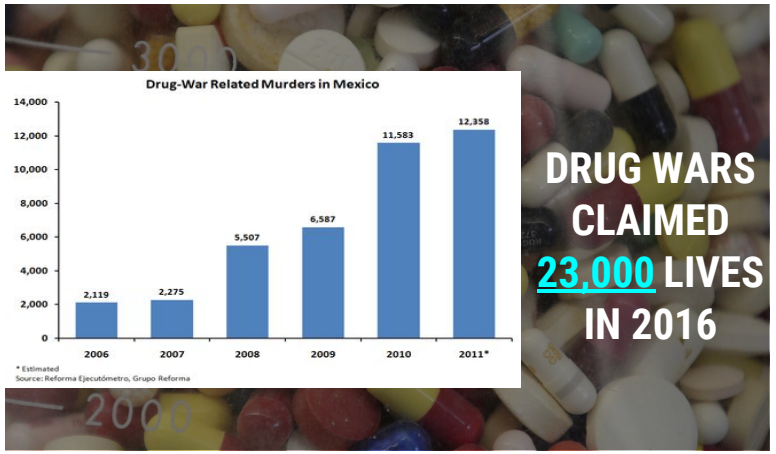
- Gartner’s Top 10 Predictions for IT in 2018 and Beyond



Economist.com

Public Safety Challenges





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Regional Public Safety Challenges

NA

"POST-FERGUSON" YOU-TUBE SOCIETY

- Rebuilding citizen trust
- De-policing effect
- Recruitment & retention

93%

of officers are more concerned about their safety

LATAM

MILITARIZATION OF POLICING

- Crime most prevalent threat
- Drug traffickers / gang wars
- Political instability / poverty

43/50

of the most violent cities in the world

1.2M

first time asylum applicants

EMEA

TERRORIST ATTACKS & REFUGEE CRISIS

- Violent crime soaring
- Austerity measures continue
- Fewer police

22%

increase in number of natural disasters (143) vs. 2000-2016 average (117)

10.4%

Annual Increase in Economic Losses from Natural Disasters Since 2000

APAC

NATIONAL SECURITY & SAFETY VIGILANCE

- Terrorism concerns
- Natural Disasters
- Mega events

SOURCE: PEW RESEARCH, EUROSTAT, BUSINESS INSIDER, GLOBAL CORRUPTION BAROMETER

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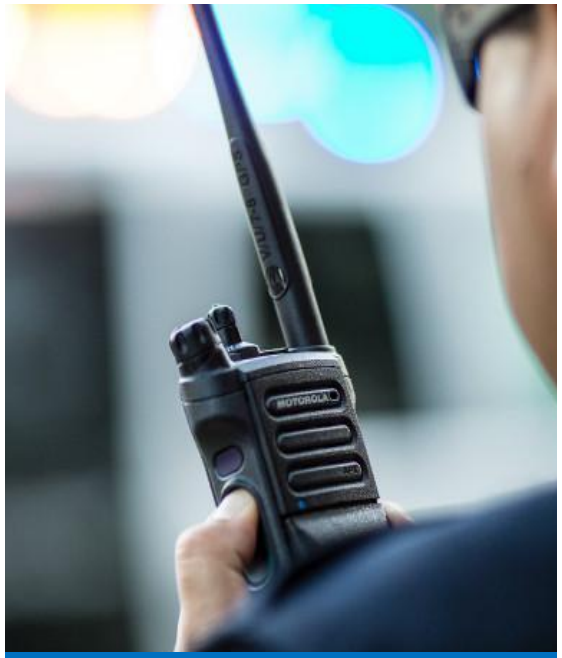
Applications Supplementing the Workflow

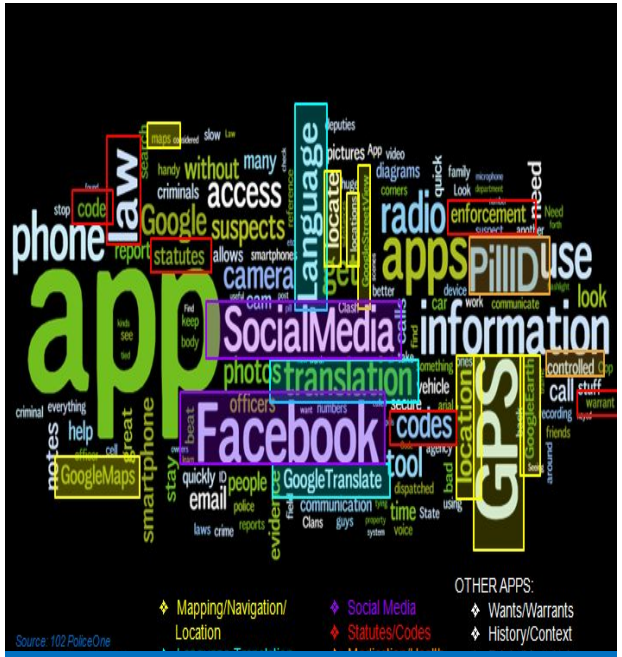


0%

AGENCIES PLANNING TO RETIRE LMR EVEN WITH FIRSTNET ADOPTION

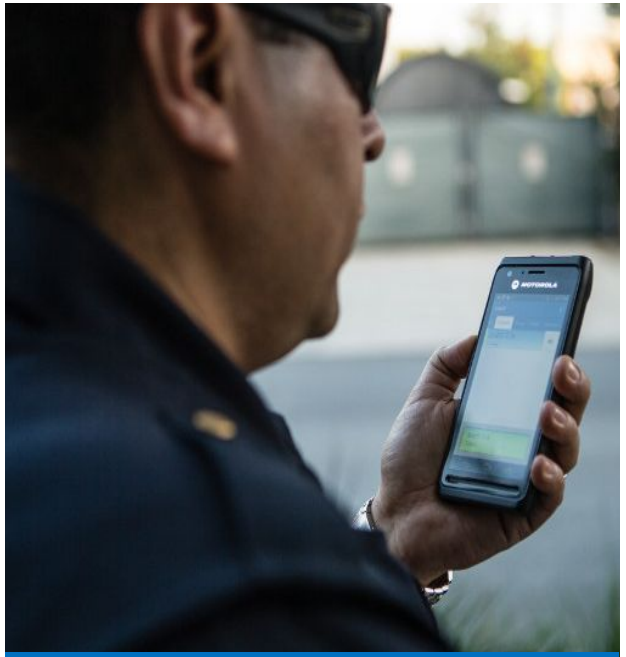
90% vs. 33%

AGENCIES ALLOWING BYOD PHONES VS. POLICE RECEIVING AGENCY PHONES



100+

PUBLIC SAFETY POINT SOLUTIONS ON APPS STORES



78%

RESPONDERS CITE FRIENDLY UI, SECURITY, & APP INTEGRATION AS KEY APP SELECTION CRITERIA

Technology Considerations for Public Safety

Insight/ Observation	Implications
Paper-based processes and disparate applications	An **integrated app ecosystem** enables seamless and efficient **end-to-end digital workflows**
Eyes-up and hands-free	**Voice interfaces** can make responders safer by enabling eyes-up and hands-free interaction and reducing cognitive load.
High velocity human factors	**Artificial intelligence** can coordinate user interfaces and augment or automate tasks freeing up responders to focus on most important ones
Enhanced situational awareness	**Live group video streaming** helps commanders and first responders see what's happening in real-time for tactical decision making and resource identification.
Multitudes of video sources	Agencies shifting focus from video walls to **video analytics** tools

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Era of Mission Critical Intelligence

MISSION-CRITICAL **COMMUNICATIONS**		MISSION-CRITICAL **INTELLIGENCE**
CONNECTING PEOPLE Voice-Centric	+	**CONNECTED EVERYTHING** Data-Centric
SITUATIONAL AWARENESS Command and Control	+	**CONTEXTUAL AWARENESS** Intelligent Edge
PHYSICAL RESOURCES Dedicated Network / Computing / Storage	+	**VIRTUAL RESOURCES** Shared Networks / Cloud / Data
PRODUCTS/DEVICES Hardware-Centric	+	**INTELLIGENT ECOSYSTEMS** Multi-Modal / Cognitive
CRITICAL COMMUNICATIONS React and Respond	+	**CRITICAL INTELLIGENCE** Predict and Prevent

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PERFORMANCE IN A DISASTER

"The radios were crystal clear."

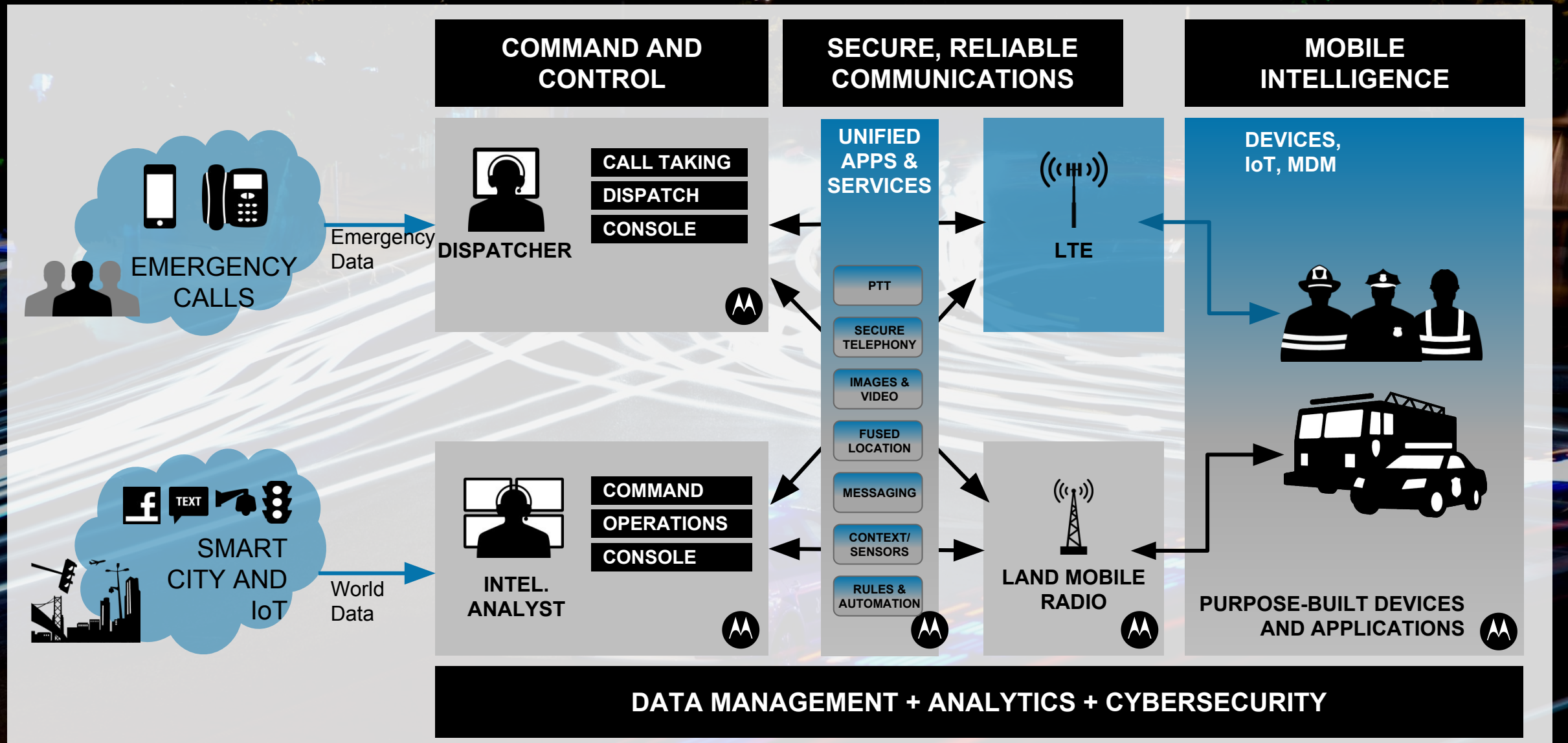
Broward County, Florida official
September 2017

HURRICANE IRMA
FLORIDA, SEP. 2017

"There was a **228 percent increase in push-to-talk communications** between county and local police from the day before Irma hit to the day of the hurricane. In that time, there were **no sites down, no outages and all [radio] communications worked flawlessly**."

Greg Holcomb
Director of Public Safety Communications
Lake County, Florida
September 2017

Context for Mission Critical Intelligence



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The Event Lifecycle

What might happen?
Event prediction & Proactive deployment

What is happening?
Event detection & analysis

What do we do about it?
Incident response

What happened?
Investigation & case resolution

Analytics

Aware

Callworks

PremierOne Flex

Vault/Records

Applications Suite

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Mission Critical Artificial Intelligence

Technology that **hears** what first responders hear
Technology that **feels** what first responders feel
Technology that **sees** what first responders see
Technology that **knows** everything about incidents past, present, and predicted in future
Technology that **understands** what to do

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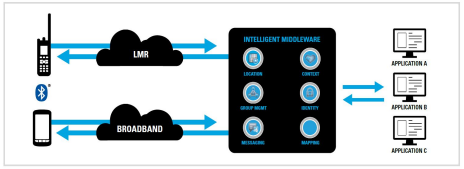
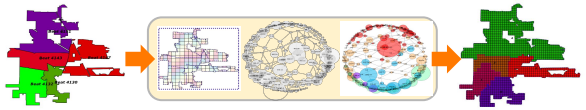
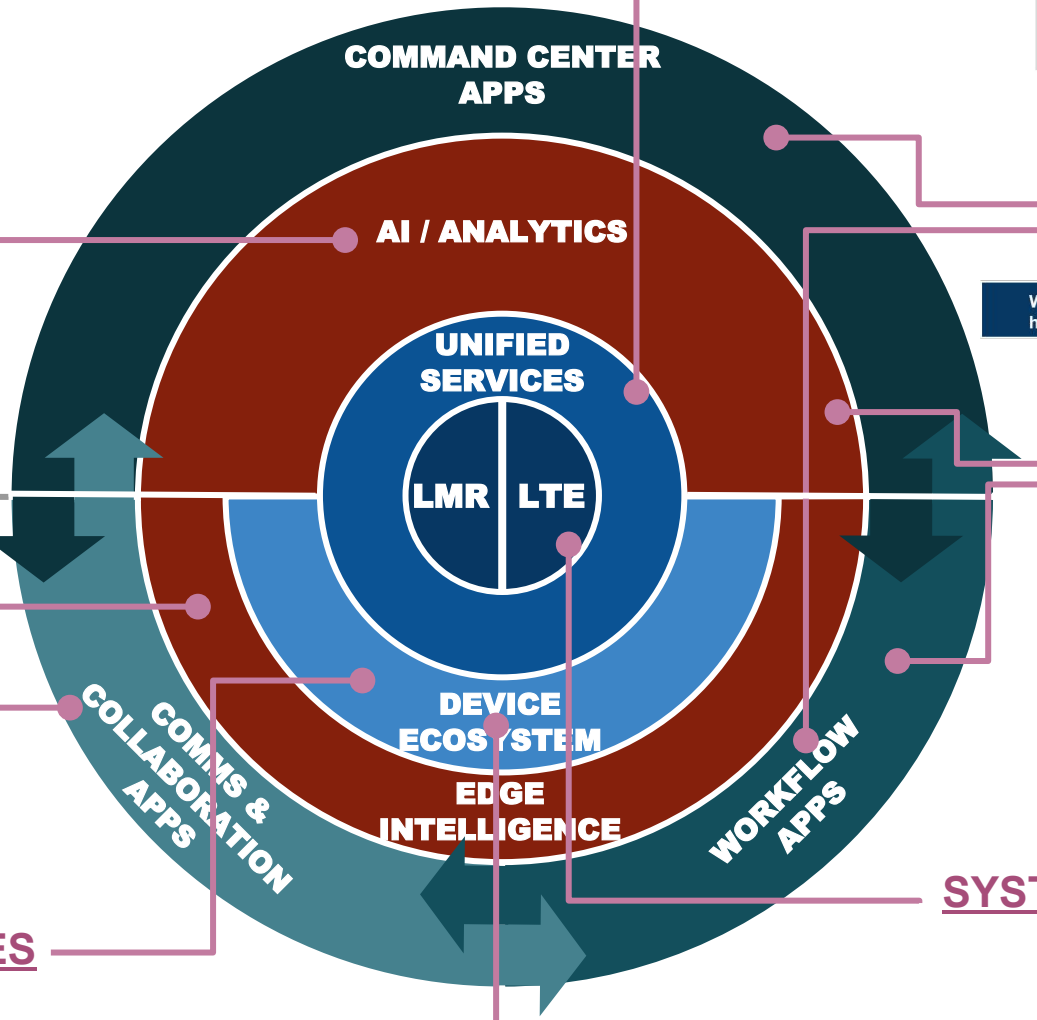
Platform for Mission Critical Intelligence

TEAM COMMUNICATIONS





AI / VIDEO SURVEILLANCE

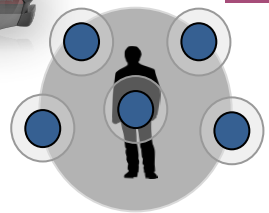


APPLICATIONS

VOICE INTELLIGENCE

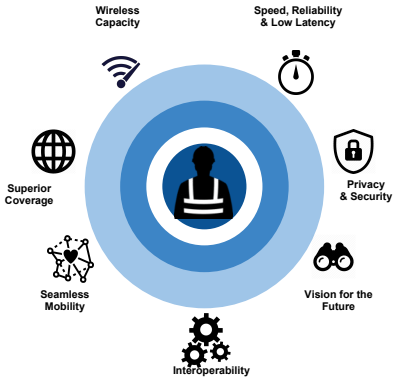
PURPOSE BUILT COMMUNICATIONS

DEVICES



MC-IOT

SYSTEM



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