

CLOUD CONNECTORS AND THE NEED FOR CONNECTIVITY

CRIMSON® 3.1

THE IIOT IS EVERYWHERE



Smart Manuf. Leadership Coalition

National Network for Manufacturing Innovation (EERE)



Produktion 2030



Made in China 2025



Innovate UK



Make in India



Manufacturing Innovation 3.0



Industrie 4.0



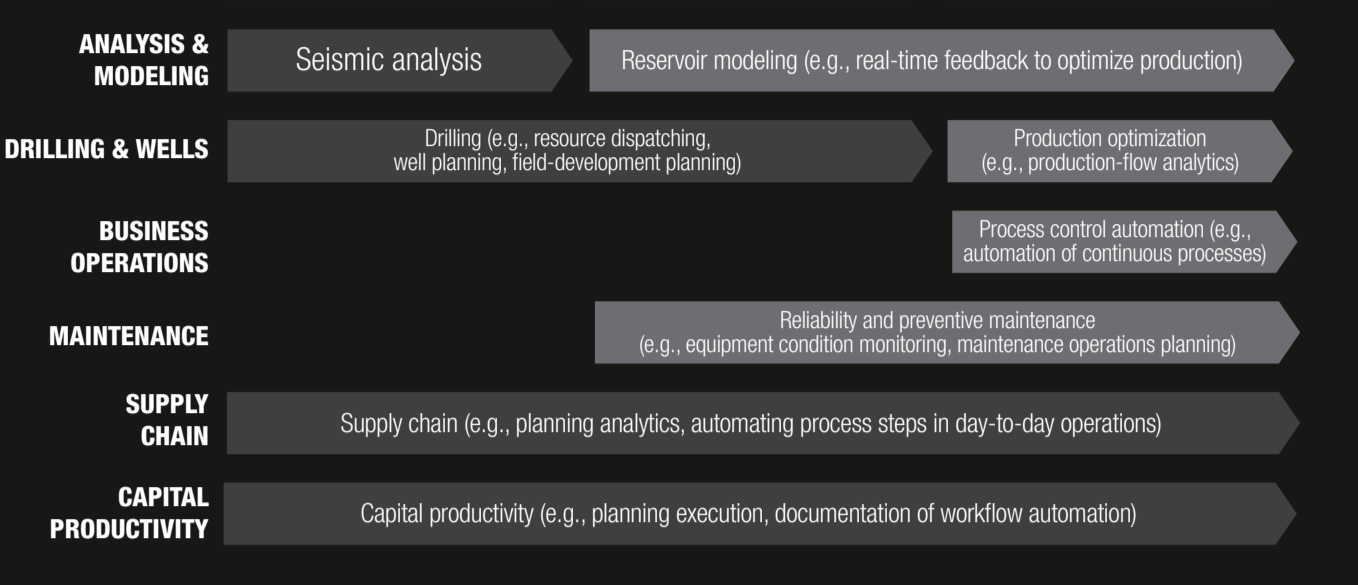
Usine du Futur



Industrial Value Chain Initiative (IVI)

BENEFITS OF IIOT: A CASE EXAMPLE

AUTOMATING & MANAGING REMOTE ASSETS IN OIL & GAS DELIVERS SIGNIFICANT BUSINESS IMPACT



ENHANCEMENTS CAN DELIVER MEANINGFUL BUSINESS OUTCOMES



ZERO-BASED BUDGETING (ZBB)

COST & BUDGET

DATA AGGREGATION & ANALYSIS ENABLES:

- Smart capital expense optimization
- Doing the right things with the right amount – replacing “do more with less” mentality



END-TO-END DIGITAL ENABLEMENT

CUSTOMER JOURNEY

INTELLIGENT PROCESS AUTOMATION, ROBOTICS AND END-TO-END DIGITIZATION OF PROCESSES ENABLE:

- Values-driven changes to be made more quickly, easily & sustainably



DIGITAL MANUFACTURING

MANUFACTURING

YIELD, ENERGY & THROUGHPUT ANALYTICS ENABLE:

- Real-time performance management
- Data-enabled predictive maintenance



ANALYTICS TO VALUE

PRODUCT

CONNECTING NEW AND EXISTING DATA SOURCES WITH NEW TECHNOLOGIES ENABLE:

- Complexity management
- Design-based optimization
- R&D productivity through machine learning

MCKINSEY & COMPANY

THE CHALLENGE

HOWEVER, STUDIES HAVE SHOWN THAT

74% OF IIOT PROJECTS WILL FAIL.

WHY?

CONNECTING DEVICES IS EASIER SAID THAN DONE

59%

Industrial CxOs who believe cognitive computing, big data & AI are **mature & market-ready**

100+

Average number of software applications running in a manufacturing site

77%

Nexus survey respondents who said **interoperability** was their **biggest challenge** in IIoT

THE LANGUAGE OF THE IIOT IS DIVERSE AND RAPIDLY CHANGING

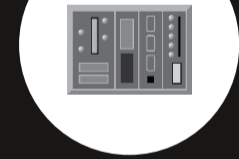
CLOUD



IIOT CONNECTIVITY*

MES, ERP, SCADA SYSTEMS

INDUSTRIAL PROTOCOL CONVERSION, DATA AGGREGATION, SYNCHRONIZATION, EDGE COMPUTING, OEE ANALYTICS



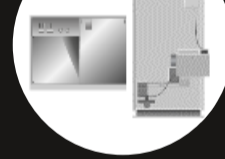
MACHINE 1

Built 2012
PLC with Ethernet



SENSORS

(temp, level, pressure, vibration, flow, etc.)



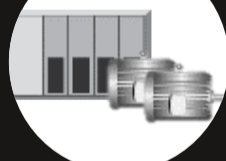
BUILDING DATA

(power, air, heat, etc.)



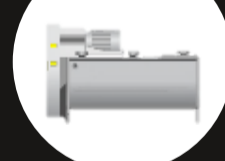
MACHINE 2

Built 1999
PLC with serial interface



MACHINE 3

Built 1994
µC + drive controllers



MACHINE 4

Built 2002
PLC with CAN

*Platforms supported by Crimson 3.1

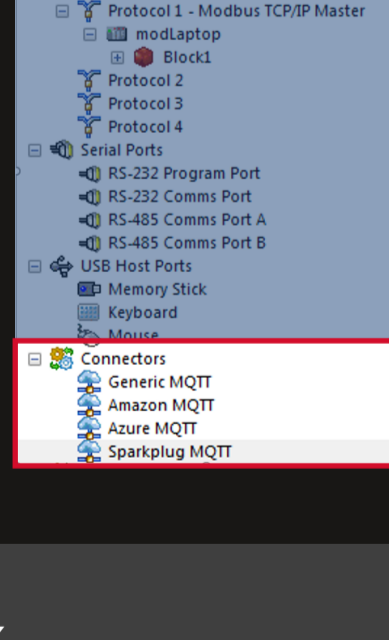
A SOLUTION: CRIMSON® 3.1 CLOUD CONNECTORS

Connect to Microsoft Azure, Amazon Web Services (AWS), Ignition! SCADA and B-SCADA Platforms

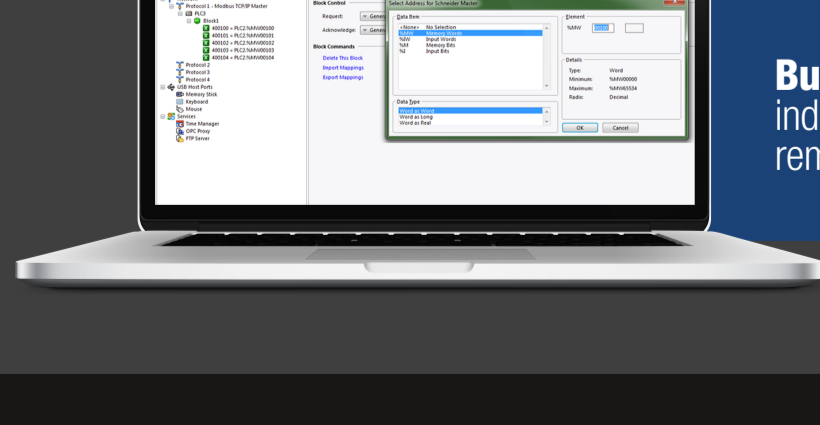
WHAT ARE CRIMSON 3.1 CLOUD CONNECTORS?

Software components that allow you to push data on a periodic basis or in response to a change of state, from a Crimson-based device to an on-premises or cloud-based server.

- Cloud connectors are included in Crimson 3.1 in the connectors are of the Navigation Pane.
- Today, they are supported on the Graphite HMIs, Edge controller and CR3000 HMIs.



ENSURE OUT-OF-BOX IIOT CONNECTIVITY WITH NEW OR EXISTING EQUIPMENT



Built-in support for over 300 industrial drivers ensures equipment remains relevant for years to come.

EASILY INTEGRATE MULTI-GENERATIONAL SYSTEMS INTO YOUR IIOT STRATEGY

- **Simplify communication** between disparate serial, Ethernet and fieldbus devices orphaned by incompatible communications standards with Crimson's intuitive, point-and-click user interface
- **Build IIoT connectivity directly** into any equipment, using Graphite® HMIs, Edge Controller or CR3000 HMIs

- **Connectors are available** for Microsoft Azure, Amazon Web Services (AWS) and Ignition! SCADA and B-SCADA platforms

