

Building Customer-Centric Supply Chains with AI and Blockchain

think 2018

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Offering Management
for Supply Chain Solutions



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Agenda

Modern Supply Chain Challenges

Disruptive technologies in Supply Chain

Watson Supply Chain Solutions

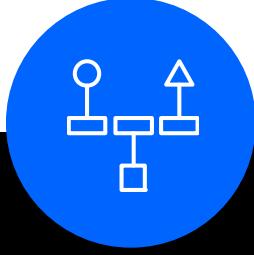
A woman with curly hair, wearing a grey t-shirt, is smiling broadly while holding a white cardboard box. Her hands are visible as she holds the box. In the background, another person's hands are visible, handing her the box. The scene is set against a dark, slightly blurred background.

Today's supply chain: Delivering on the brand promise

Many factors are driving the need for **change** in the **Supply Chain**



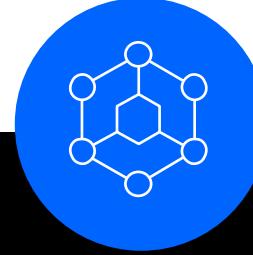
Cost
pressures



Increasing
interdependence



Customer
centricity



Closer
alignment



Disruptive
technologies

Agenda

Modern Supply Chain Challenges

Disruptive technologies in Supply Chain

Watson Supply Chain Solutions

What is IoT?



The **Internet of Things** is...

The network of physical objects...

...embedded with electronics, software, sensors and network connectivity...

... which enables these objects to collect and exchange data.

IoT at work...



IBM and Kone are transforming preventative maintenance

IBM and Honeywell are reimaging retail store operations

IBM and Kouvola Innovation are optimizing the utilization of shipping lanes

What is Blockchain?



Shared, append-only ledger



Smart contract governance



Private and permissioned



Trust through consensus

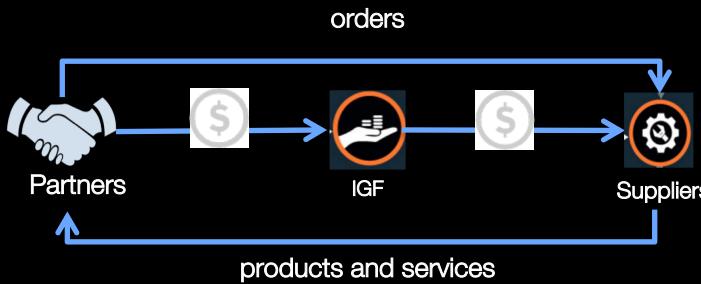
An immutable, secure, shared version of the truth

....to drive unprecedented efficiency.

Blockchain at work



IBM Global Financing
dramatically reduced invoice
disputes



| IGF world-wide statistics | | |
|--|--------------------------------|---|
| 4000+ Partners and Suppliers | 2.9M Invoices / year | \$44B Financed / Year |
| \$100M Capital tied up any time! | 25,000 Disputes / year | \$31K Avg. disputed invoice value 44 days Avg. time to resolve a dispute |

Benefits

- ~75% reduction in the number of disputes
- Reduction in dispute resolution time: 40+ days to ~10 days
- Improved capital efficiency; freer flow of capital

Blockchain at work



IBM Global Financing
dramatically reduced invoice
disputes



An collaborative effort created to advance cross-industry blockchain technologies for business

- Announced December 2015
- Open source, open standards, open governance
- 159 developers from 27 organizations



Brian Behlendorf
Executive Director



Blythe Masters
Board Chair



Chris Ferris
TSC Chair

www.hyperledger.org

Blockchain at work...



Everledger and IBM are reducing counterfeiting in the diamond industry



Maersk and IBM are digitizing customs processes



Walmart+ and IBM are ensuring food is safe to eat

What is AI / Watson?



Watson mimics how humans learn and interact.

UNDERSTANDS

Cognitive systems understand imagery, language and other unstructured data like humans do.

REASONS

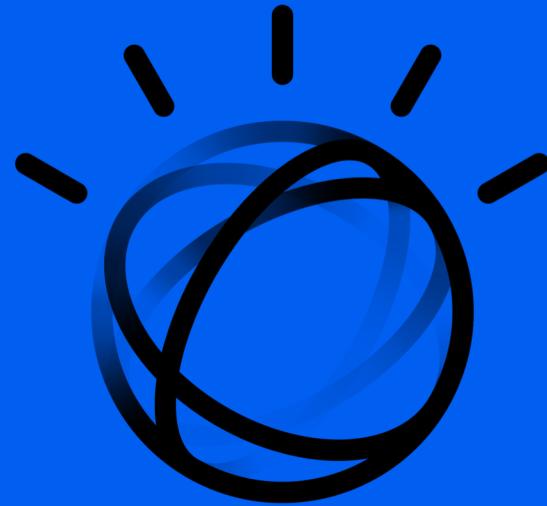
They can reason, grasp underlying concepts, form hypotheses, and infer and extract ideas.

LEARNS

With each data point, interaction and outcome, they develop and sharpen expertise, so they never stop learning.

INTERACTS

With abilities to see, talk and hear, cognitive systems interact with humans in a natural way.



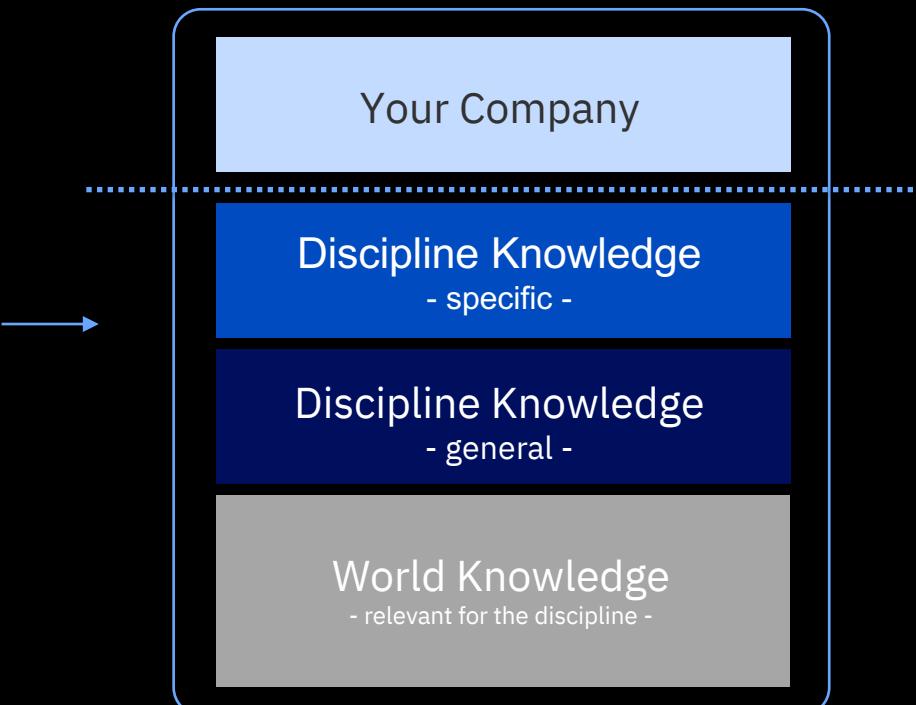
Watson is an artificial intelligence platform comprised of pre-trained cognitive services.

What is a corpus of data?

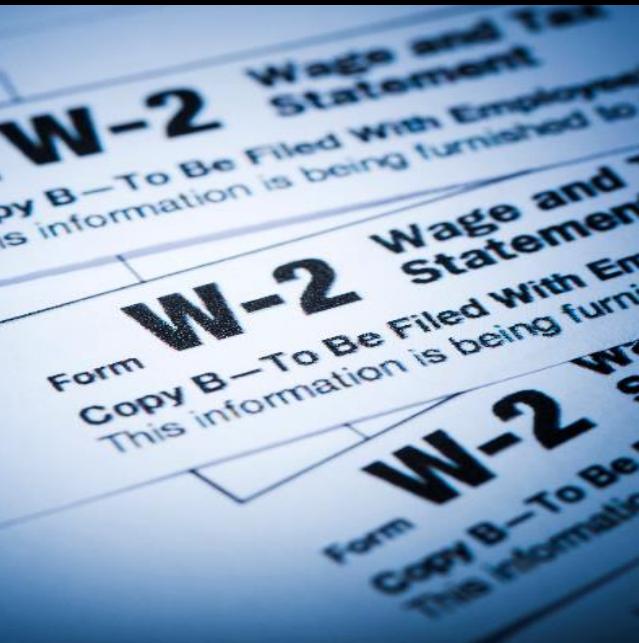
Data – both structured and unstructured – is curated by experts in the field...



... to create the Watson Supply Chain Corpus of knowledge...



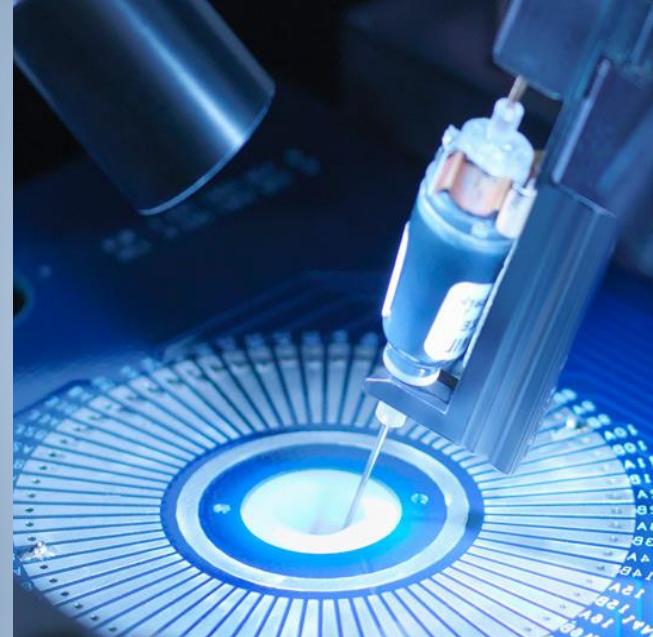
AI at work...



IBM and H&R Block taught Watson to do taxes



Memorial Sloan Kettering taught Watson to treat cancer



IBM and Tokyo Electron Limited taught Watson to inspect semiconductors

The Cognitive Journey



Agenda

Modern Supply Chain Challenges

Disruptive technologies in Supply Chain

Watson Supply Chain Solutions

A young woman with curly hair is smiling broadly as she receives a brown cardboard box from a delivery person's hands. She is wearing a grey t-shirt. The background is blurred green foliage.

Today's supply chain:
Delivering on the brand promise

Enabling a Smarter Supply Chain...

K

L

M

N



CONNECT

To partners,
devices, new data
sets and more



COLLABORATE

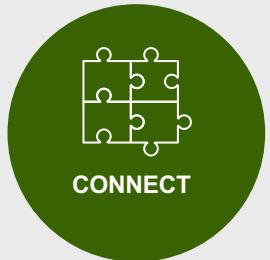
Multi-enterprise,
shared visibility,
immediate actions



**MANAGE
DISRUPTION**

Glean insights,
manage KPIs, predict
and mitigate risk

AI-Enable Solutions for IT & Supply Chain Professionals





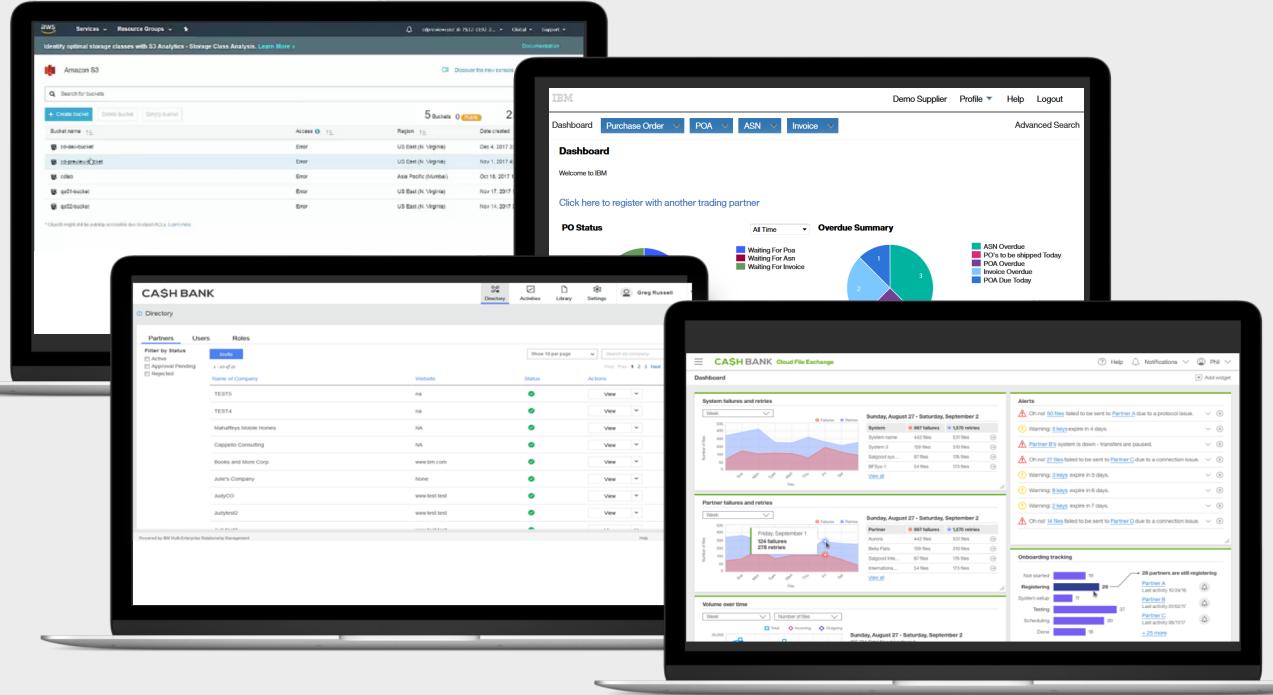
The industry leading B2B
Integration and Managed File
Transfer Software

Flexible deployment options

Includes API's & an open ecosystem

Supports multiple interaction models

Connect to your trading partners with IBM B2B Collaboration Software



B2Bi / SFG

ITX

PEM

SSP

Control Center

Connect:Direct

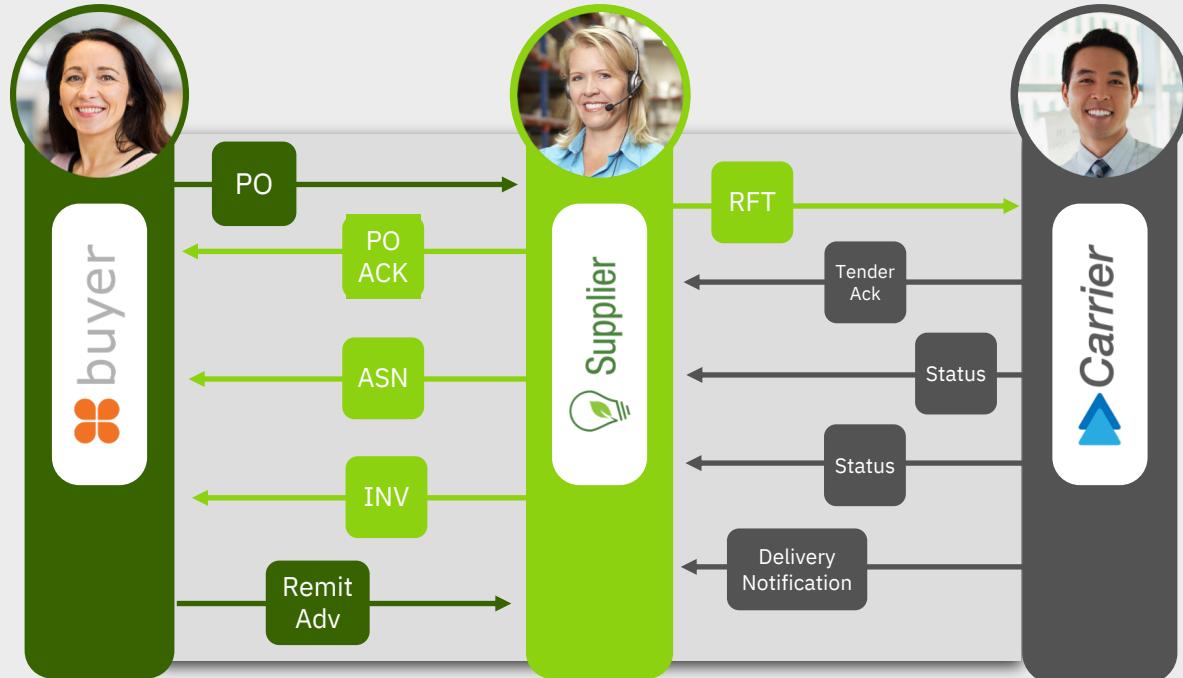
and more...



One connection provides access to all trading partners regardless of protocol or format



Connect to your trading partners with IBM Supply Chain Business Network





First of a kind, end-to-end Supply Chain visibility and collaboration platform

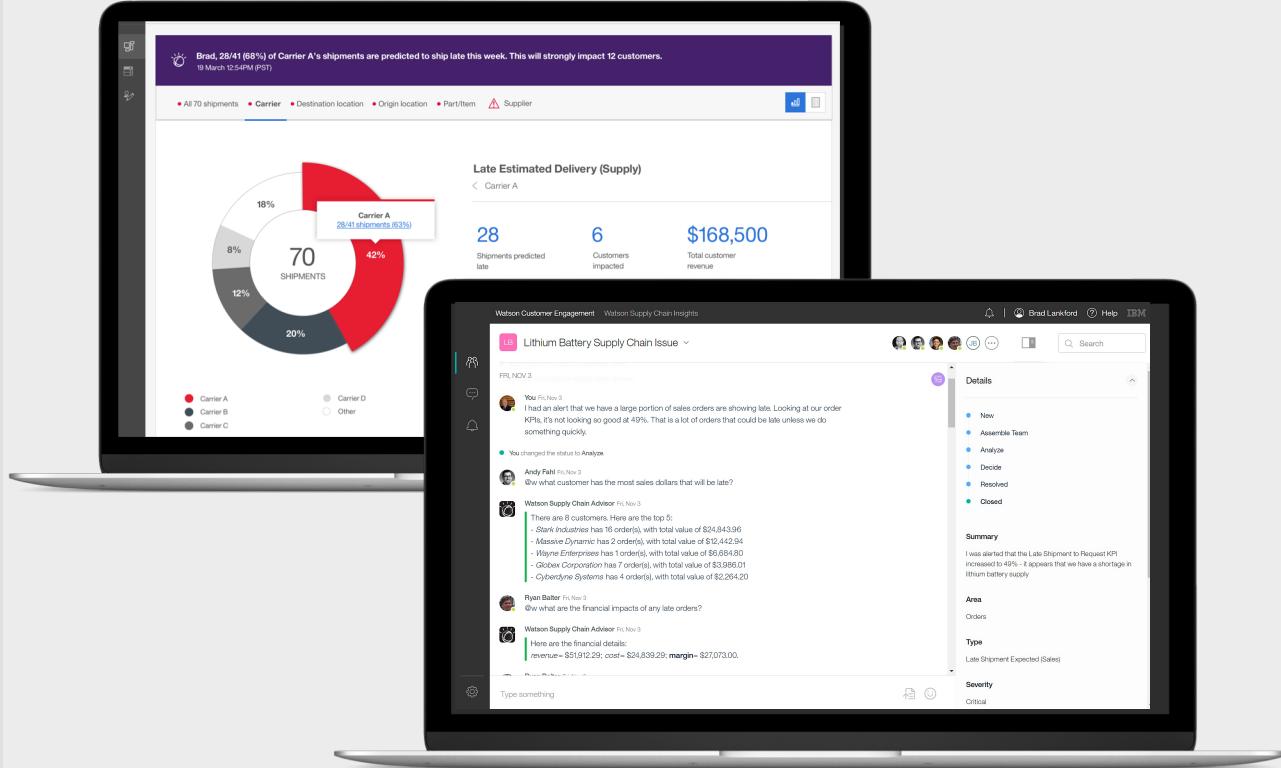
Data source agnostic with rapid integration

Correlation of internal & external data sets

Watson KPI monitoring, insights knowledge management and issue resolution

Connect your data from a variety of systems with external data sources

IBM Supply Chain Insights





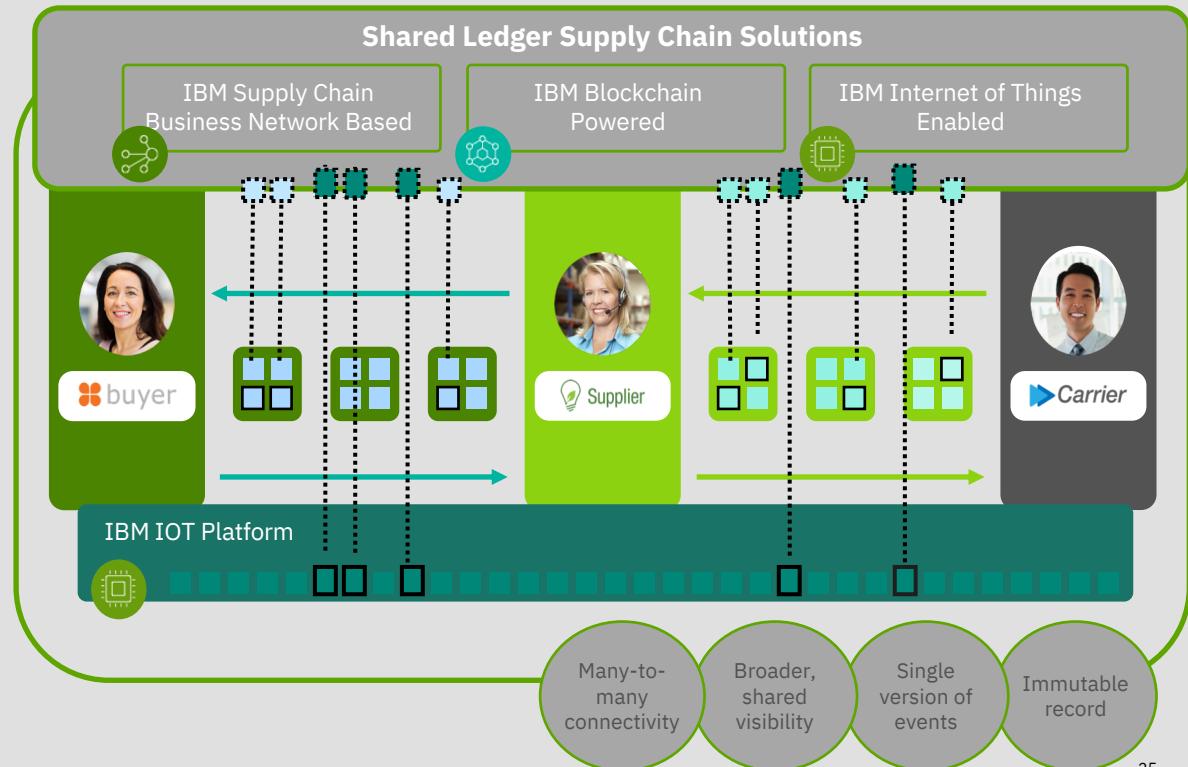
Enhanced B2B connectivity and supply chain visibility with blockchain-based, IoT-enabled solutions

- Leverage existing networks
- Create blockchain networks simply and easily
- Shipment Visibility
- Invoice Reconciliation
- Unsaleables Mgmt
- ... and more

Leverage the IBM Bloc

IBM Supply Chain Shared Ledgers

Powered by Blockchain



AI in Action for Supply Chain

Empower supply chain practitioners to make faster and more accurate decisions to mitigate disruptions and optimize trading relationships

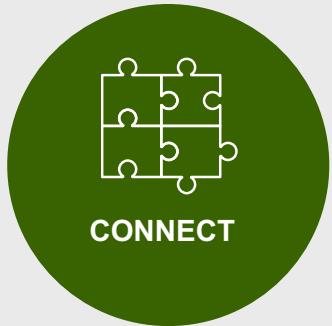
The collage consists of six screenshots arranged in a grid-like pattern, each illustrating a different AI feature:

- Natural Language Query:** A screenshot showing a search interface where filters and sorts are replaced by natural language query input.
- Critical Insights:** A screenshot of a dashboard titled "Supply Shipment Status" showing shipment details and a status timeline with icons for "SUPPLY DEPARTMENT", "IN PROCESS", "SHIP", "IN TRANSIT", and "DELIVER".
- Machine Learning:** A screenshot of a document analysis interface showing a table of extracted data fields like "Post name", "Post code", "Post value", and "Watson confidence".
- Pattern Tracking:** A screenshot of a pattern tracking interface showing a list of "Select a shipment type" and a preview of a "Shipment Details" card.
- Chatbot Collaboration:** A screenshot of a chatbot collaboration interface showing a conversation with Watson, including messages like "What's the latest update on shipment #12345678?" and "Shipment #12345678 has been shipped."
- Business Transaction Intelligence:** A screenshot of a detailed shipment tracking interface showing "Shipment Details" for "Shipment ID: 12345678" and "Shipment Shipment: 24 AUG 2018".

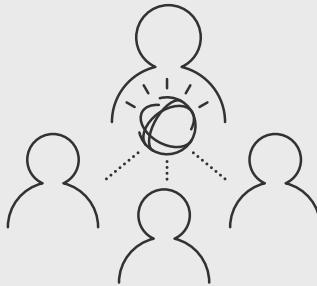
Watson APIs

Speech to text | Text to speech | Conversation | Discovery | Knowledge Studio | Natural Language Understanding | Natural Language Query

To drive business success...



CONNECT



**Reduce time to value
by 85%, achieve
300% ROI**



MANAGE
DISRUPTION

**Watch disruptions dwindle
from days to minutes**



COLLABORATE

**Retrieve information
90% faster**

Watson Supply Chain at **think**

CAMPUS

Reimagine
your
business in
the era of AI

Inhi Suh
WCE Keynote

Tuesday
1:30 – 2:10 PM
Session #8798



From Digital Disruption to Dominance:
Reimagining Every Customer Experience

Featuring Marie Wieck
with **Lenovo**



How Blockchain
is applied in
managing
Software Royalty
with 3rd parties

Jeanette Barlow
Supply Chain Leaders –
Reinventing the Way
Business Delivers

Wednesday
1:30 PM – 2:10 PM
Session: #8809



DEMO PED #401

Building an intelligent supply chain

THINK TANKS

Revolutionize Your
Supply Chain Using AI
Wednesday
2:30 PM - 2:50 PM
Session: #9341A

Supply Chain Business
Network
Wednesday
3:00PM - 3:20 PM
Session: #9342A

Shared Ledger:
Shipment Visibility
Wednesday
12:00 PM - 12:20 PM
Session: #9340A



Thank you

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