

# Maximizing Business Success With Holistic IoT Solutions

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An AVNET Partner Approach

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# Challenges to IoT Based Solutions

## Business challenges

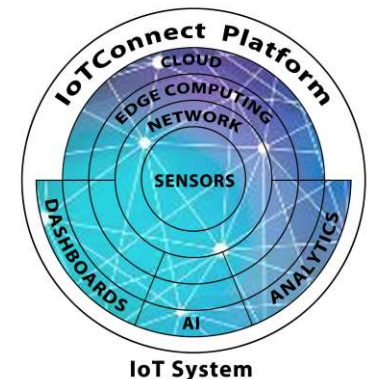


- Deficits in critical business intel, enterprise or technical knowledge
- Lack of clarity -> Interdependency of business objectives and technical capabilities
- Developing a compelling Business case
- Forecasted demand for resources exceeding known or available
- Organizational inertia

## Technical challenges



- Bringing edge computing into a traditional IT environment
- Access to appropriate IoT skillsets
- Ensuring scalable/extensible architecture
- Identifying/closing “gaps” in leveraged infrastructure
- Finding (or developing) robust cloud solutions for analytics/AI
- Limitations of analytics, especially “in stream”
- Understanding the entire IoT stack
- Data aggregation performance/cost effectiveness



*Diversity of challenges requires the Holistic approach*

# How To Address IoT Challenges

- Assemble a proven team of business and technical problem solvers with decades of relevant industry experience
- Acquire intimate familiarity with the many challenges to rapid design & development and their solutions
- Apply a holistic system design methodology (Slides 4-8)
- Build strong relationships with clients as partners

*A holistic view anticipates and addresses most causes of unsuccessful IoT deployments*

# The Holistic IoT Solution

## Key Elements . . .

- **Business First** – Strategic business objectives as Governing factors in solution tradeoff decisions (See Slide 7)
- **Successful IoT Solution is Part of a System** – Visualizing business needs and appropriate enabling IoT technologies as a system of interdependent processes and data flows
- **Leverages Existing Infrastructure** – Capitalize on available ecosystem when existing can serve and grow

*Successful IoT enabled solutions assure better business decision making*

# Elements of “Business First”

- Articulate the business objective(s), stakeholders
- Confirm whether internet connected sensors can help assure business objective(s)
- Validate a solution architecture, sufficient to support an extensible system design
- Define the value stream: ID intermediate revenue opportunities
- Using a well-developed system design, estimate costs
- Model the most relevant business benefits as:
  - Improved operational efficiency
  - New ongoing revenue streams
  - Improved customer satisfaction metrics (See also Slide 7)
- Converge on acceptable ROI
- Establish how organization buys into change(s)
- ID key decisions – critical technologies, make vs buy, key stakeholders/partners needed, leveraged infrastructure vs new, etc

*Minimize total cost & risks with incremental value add product releases*

# Holistic IoT System Design

## What is an IoT System?

A group of interdependent components that form a unified and useful whole:

- Components such as sensors, edge processors, communications networks, cloud computing centers, data analytics, and visualization dashboards, working together to deliver business benefits
- Measurements, procedures, behaviors and tools by which business objectives are achieved
- Custom elements immersed in a greater ecosystem that provides access to existing, proven and affordable common elements and services

## What is the Holistic System Design Method?

Integration of business objectives and stakeholder needs as Governing factors in tradeoff decisions for IoT solution architectures

*The IoT connected business can more quickly pinpoint patterns indicating inefficiencies or waste*

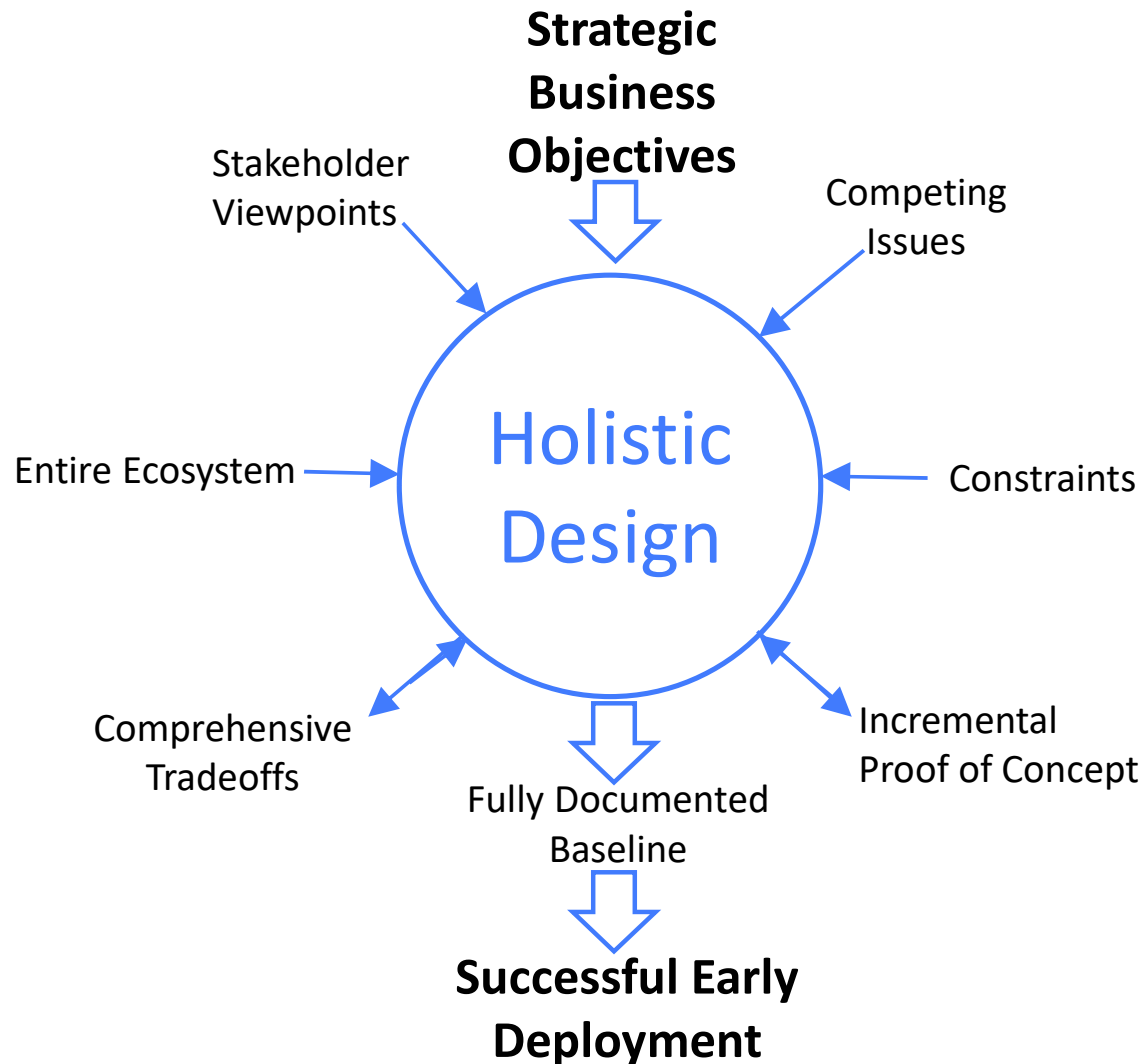
# Holistic Tradeoff Decisions

## A few examples of Governing business factors

- Return on Investment
- Increasing revenue, market share, market presence, etc
- Identifying market disruption opportunities
- Improving time to market
- Process/product improvement
- Improving Business/IT collaboration
- Accelerating digital transformation of the business
- Integrating comprehensive security into the solution
- Better customer service
- Reducing carbon footprint
- Improving safety

*Almost any business objective or stakeholder need that can be expressed by a quantitative or qualitative metric can serve as a Governing factor*

# Holistic System Design Principles

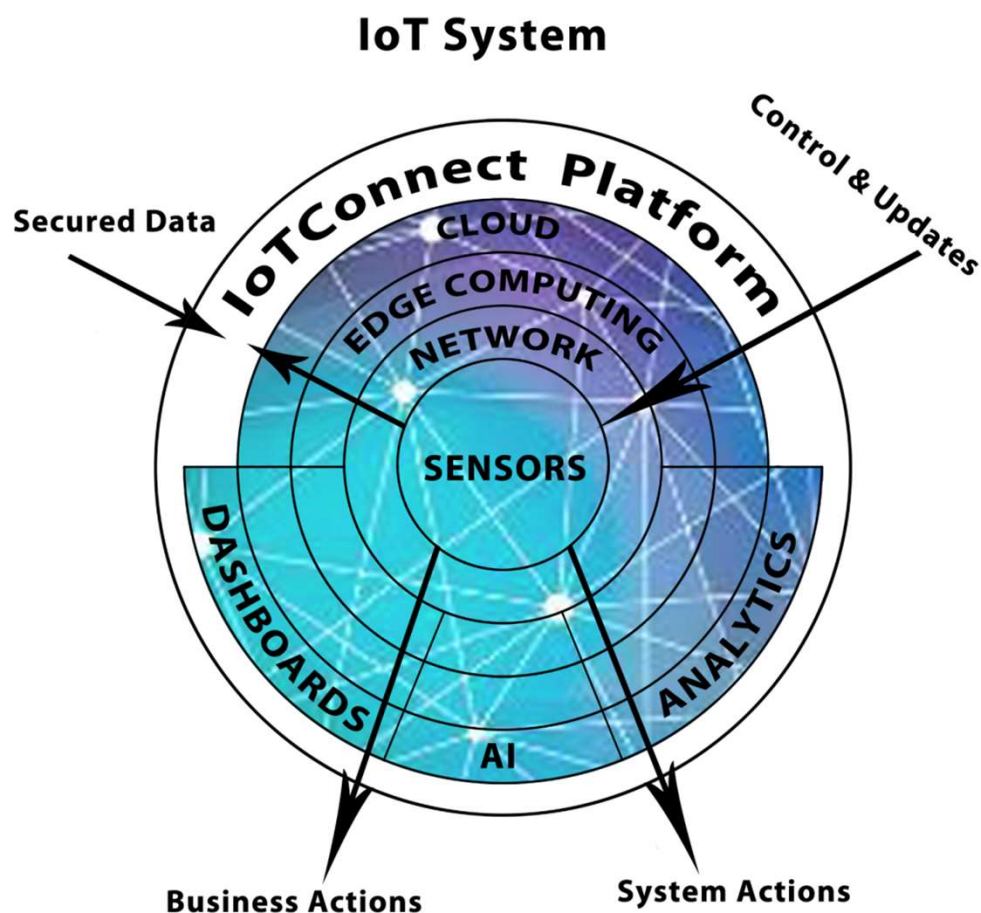




# IoT Platform Critical Features

Critical Features	IoTConnect
Service oriented architecture (SOA)	✓
Mature/scalable cloud services	✓
Vertical capabilities	✓
Comprehensive sensor/device library	✓
Industry standard protocols	✓
Robust software development kit	✓
Customized application software solutions	✓
End-to-end security	✓
Reliable device maintenance	✓
<b><i>IoTConnect is fully extensible</i></b>	✓

# The Extensible Platform



- Application specific customizations
- New IoTConnect capabilities
- Additional system features

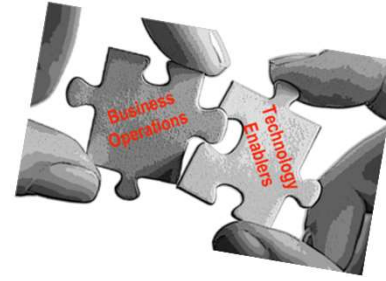
*Assess-IoT can develop specifications for new capabilities*

# Avnet Advantage

The **AVNET /IoTConnect** program team has selected **Assess-IoT, LLC** as an innovative consulting services partner

- ***The IoTConnect team can expect more confident path to deployment driven revenue (How?)***
  - *Structuring high level IoT architecture for early payoff opportunities*
  - *Leveraging strong Assess-IoT System Engineering background, edge to cloud*
  - *Applying lessons from recent customer engagements in IoT enabled solutions and successful digital transformations*
- ***Assess-IoT is a strong partner in maximizing value in the Quick Start Program, based on our novel Holistic approach (Why?)***
  - *Aligned with AVNET philosophy using “Business First” principles in validating IoT enabled solutions*
  - *Experienced with enterprise/global accounts*

# Why Assess-IoT?



- Persistent focus on business objectives driving technology choices (“Business First”)
- Significant strengths in visualizing and validating the complete IoT enabled solution architecture against these business objectives
- Depth of experience in handoff from early concept/requirements definition to product (or service) development and deployment
- Strong belief that the **AVNET /IoT Connect Platform as a Service (PaaS)** is a Best-in-Class platform for achieving digital transformation.

# Conclusion

- The AVNET teams can expect to achieve lower risk path to IoT deployment driven revenue (How?)
  - Greatest value-add in the exploratory/feasibility decision-making phases
  - Strong System Engineering background
  - Special attention to holistic understanding the client's ecosystem model
- Assess-IoT is the right partner in maximizing value in the Quick Start Program, especially the initial stages (Why?)
  - Strongly aligned with AVNET philosophy using “Business First” principles in validating IoT enabled solutions
  - Experienced with enterprise/global accounts

## In Closing . . .

*Assess-IoT is your go-to partner to help you attain your goals and objectives in the IoT realm. We have the experience, and know-how to help you and your client create a successful and profitable project outcome.*

*Please contact us at: [bill.allen@assess-iot.com](mailto:bill.allen@assess-iot.com)*

# Backup Resources

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**A full explanation of the Holistic system engineering method** (Assess-IoT, LLC whitepaper)

**Title:** [“The Value of a Holistic Systems Engineering Methodology for IoT Enabled Business Solutions”](#)

**Source:**

Assess-IoT, LLC

**A good survey of the reasons IoT deployments fail** (Public Domain whitepaper)

**Title:** [“Why do IoT Projects Fail and How do the Other 42% Succeed?”](#)

**Source:**

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