

TOMORROW:

NUZIP STANDARDS DEVELOPMENT EXERCISE (1)

**YOU HAVE ALL RECEIVED GENERAL BACKGROUND AND ROLE SPECIFIC BRIEFING.
PLEASE CAREFULLY REVIEW**

- introduce through experience multiple dimensions and complex motivations that might be encountered in standards negotiation (with subtleties that are difficult to convey otherwise.)
- emphasis is more on planning/policy issues than technical merit. The technology/performance standard example is highly simplified – discussion after working through the exercise in a class setting might delve deeper into issues in emerging technologies/systems, as well as broader policy, marketing, finance, political, organizational, design etc. considerations.

STANDARDS DEVELOPMENT NEGOTIATION

WHY IS PARTICIPATION IN STANDARDS DEVELOPMENT SO IMPORTANT?

- Push strategic agenda; influence standards (encourage favorable, block unfavorable); avoid giving competitors advantage (recognizing that a standard can limit basis for competitiveness)
- Help advance field and key systems
- Build relationships
- Help assess strengths and vulnerabilities
- Use as test bed for new ideas
- Learn (from how discussed):
 - Current, potential competitors' thinking
 - Current emerging alliances
 - Technology evolution paths; research directions

VERY QUICK REVIEW OF NEGOTIATION BASICS

- Define your own interests and goals (continually refine)
- Assess interests and goals, absolute positions of other parties in the negotiation
- Seek agreement that maximizes your profit (this may mean first “growing the pie”, and could lead to pulling out of negotiation)
- Particularly if you will need to negotiate again with some of all of the same parties and given the need to implement agreement, work to help them to be comfortable with the agreement
- Multi-party negotiation (including standards) involve dynamic (shifting) alliances among parties

ADDED COMPLEXITY IN STANDARDS NEGOTIATION (CONTINUED)

- Understanding of own interest already a challenge. Standards can be a platform impacting across organization and both current and uncertain future competitive position; ideal rep needs both technical and strategic/management understanding; Participants may represent multiple interests including what is best for their industry, country, company or personal agendas
- Parties are often very mismatched- differing in
 - types of organizations ranging from governments to industry to other stakeholders,
 - levels and standing of individual representatives,
 - varying agendas, knowledge bases, and experience in target domain and standards setting in general,
 - cultures and development stages

ADDED COMPLEXITY IN STANDARDS NEGOTIATION (CONTINUED)

- Goals of participation extend beyond “winning”; consequences of pulling out can be significant and negotiations & standards setting will continue without you
- Strategic interests may have complex and distinct short versus long-term components
- Likely will encounter parties again with different starting alliances and perhaps changed agendas
- Process is often argumentative
- Negotiations often have a significant informal as well as formal component
- **Success of standards development determined by acceptance and implementation of standard**

EXAMPLE QUESTIONS FOR NEGOTIATION PLANNING

- Whom/what do I represent? How could my company's needs change? What is critical to me? What authority do I have?
- What do I know and not know? What can/should I learn from the negotiations?
- Who is at the table? Whom/what do they represent? How are they interrelated? How might their needs change?
- What is the position, authority and standing of the representatives? How might negotiations change if the reps change?

- What do they know and not know? Can I expand their knowledge productively?
- Who could block? Who might enable?
- How are current negotiations linked to other negotiations? Who might I need in the future and how?
- What are my underlying assumptions (and those of other parties)?
- What are my competitive strengths and weaknesses? How might these change?
- How might the focus technology change and how would this impact?

NUZIP STANDARDS DEVELOPMENT EXERCISE (2)

CHALLENGES UNDERLYING STRONG INDUSTRY PRESSURE FOR NEW STANDARD

- Multiple and growing number of machines and devices on factory floor and beyond that need to be interconnected
- Continually evolving IT technologies and analytic potential, stakeholder expectations and emerging demands of cross-enterprise smart grid pushing increased speed and accuracy of data throughput; pressure to enhance interconnections and data sharing particularly with suppliers (who resist)
- Increased speed and interconnections heightening complexity and security risks
- Companies already pushing limits of current systems but delaying investment pending a standard.

NUZIP STANDARDS DEVELOPMENT EXERCISE (3)

TECHNICAL TRADE-OFFS ADDRESSED IN EXERCISE

- System-wide speed of throughput reaction time) – speed required data is received and confirmed, and extent to which this is consistent and predictable
- Complexity (difficulty in set up and maintenance – how much expertise and training is required); difficulty is transitioning from legacy systems
- Security

NON-TECHNICAL FACTORS: Strategic/policy interests, level of industry development, local economic and market constraints, political and trade relations, varied players and agendas; pre-established relationships

NUZIP STANDARDS DEVELOPMENT EXERCISE (4)

You have been assigned to represent one of 6 countries (A-F) which have varying concerns related to a technology (which has a de-facto/ market determined standard) and different goals in negotiations to develop a formal new standard.

You have been given general background and a role-specific briefing on your position (including primary and fallback goals) .
PLEASE CAREFULLY REVIEW

TASKS

- Assess needs and concerns, define basic strategy – both ideal and fallback position
- Identify and assess positions and foundations of other participants, refine strategy
- Actively pursue strategy through both open session and, as appropriate and necessary, private interaction during breaks

NUZIP STANDARDS DEVELOPMENT EXERCISE (5)

KEY UNDERLYING TECHNOLOGY: NUZIP

Country A firms originated technology and are market leaders; Country A firm only one with demonstrated (and now patented) high speed approach though “minor” security concerns. Country B is evolving alternative, incompatible, approach which may have advantages - but no time line for commercial launch. Country C represents critical supplier perspective and Countries D, E and F are customers/users of the technology but at varying levels and with varying concerns.

There is strong industry pressure for high speed standard to guide and support investment planning.

NUZIP STANDARDS DEVELOPMENT EXERCISE (6)

COUNTRY PROPOSED DRAFT STANDARD

1. The standard for NUZIP will be high speed: 100 mbs -1 gb throughput speed with less than 1 mbs reaction time.
2. The technology will be based on the Country A approach including its level of safety and security.
3. It will be backward compatible and support use at lower levels.

If a standard is not approved in the current session, it will be put off until at least next year

NEGOTIATION PROCESS AND INSTRUCTIONS

STAGES (after 5 minute instructions)

1. 20 minutes preparation within groups

Use this time to review role assignments and consider strategy. While you cannot embellish or change the technology, you can and should be creative in anticipating other parties' positions (refining assessment as negotiations proceed), how you can address them and how they might respond. What is critical to you? What will you reveal - or not – and when about your interests and thinking? What do you need, how urgently? Who might be allies? Who might be enemies? **Select a spokesperson.**

2. 20 minutes formal negotiation:

Each group will make brief opening statements and then offer further comments and counterpoints/questions with permission of Chair.

NEGOTIATION PROCESS AND INSTRUCTIONS

3. **20 minute break** (you may use this time for informal interactions with other groups; the Chair will call open sessions back to order as scheduled – countries may request a couple more minutes of informal time)
4. **20 minutes formal negotiation**
5. **20 minute break** (you may use this time for informal interactions with other groups)
6. **15 minutes final formal negotiations** (if necessary)

OPEN SESSION RULES

The sessions will be administered by the Chair who will recognize speakers. Discussion of deals including pricing, offers of training etc. are NOT ALLOWED as part of the general standard setting sessions. This may be part of informal negotiations between countries.

VOTING PROCEDURES

The Chair can call for a vote at any time. Voting will follow ISO rules with a consensus (approval of standard) determined by agreement of 2/3 of voting participants (in this case 4 of 6 voting participants or 3 of 5 if one country abstains). Each country has ONE vote (regardless of size of delegation).

SUBMITTING DRAFT STANDARDS

An initial draft has been prepared by Country A. Any participating country may submit a new or revised draft to the Chair. This should be in advance of open sessions but revisions may also be proposed during the open sessions. For easy reference each line of a draft should be numbered.

The Chair will present each draft for comment and vote (time for an individual session may be extended if the Chair feels an agreement is imminent or a key point is being clarified.)

WORKING STANDARD

1. The standard for NUZIP will be at least 100mbps throughput speed with less than 1 ms reaction time.
 2. The technology will be based on (reference) the Country A approach including its current level of safety and security.
 3. It will be backward compatible and support use at lower levels
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1. The standard for NUZIP seeks to achieve 100mbps throughput speed with less than 1 ms reaction time.
 2. The technology seeks to achieve a high level of safety and security particularly to the extent it mitigates the existing vulnerabilities and offers users a high level of privacy protection.
 3. It will be backward compatible and support use at lower levels with appropriate levels of security.
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1. The standard for NUZIP will be at least 50 mbps throughput speed with less than 1 ms reaction time.
2. The technology will have a level of safety and security equivalent to current emergency responder communication standards.
3. It will be backward compatible and support use at lower levels with appropriate levels of security

- 1. The standard for NUZIP will be at least 100mbps throughput speed with less than 1 ms reaction time.**
- 2. The technology will be based on (reference) the Country A approach**
- 3. It will include safety encryption at least equivalent to current emergency responder communication standards independently verified .**
- 4. It will be backward compatible and support use at lower levels with independent verification.**

- 1. The standard for NUZIP will be at least 100mbps throughput speed with less than 1 ms reaction time.**
- 2. The technology will be based on (reference) the Country A approach**
- 3. It will include safety encryption at least equivalent to the highest current ISO communication standard level, independently verified .**
- 4. It will be backward compatible and support use at lower levels with independent verification.**

- 1. The standard for NUZIP will be at least 100mbps throughput speed with less than 1 ms reaction time.**
- 2. It will include safety encryption at least equivalent to the highest current ISO communication standard level, independently verified .**
- 3. It will be backward compatible and support use at lower levels with independent verification.**

DISCUSSION QUESTIONS (1)

STAYING WITHIN ROLES (Each “country” responds):

1. What was your strategy? What impacted this during the negotiation? How did you view other players?
2. How close did you come to achieving your objectives?
3. What did you learn about the others at the table?

DISCUSSION QUESTIONS (2)

NOW STEPPING OUTSIDE OF ROLE (Return to your normal selves; open discussion)

1. What might you expect in reality that was not captured in the exercise?
2. What did the exercise teach you about standards?
3. How could standards (and the related development process) impact planning, operations and innovation?

DISCUSSION QUESTIONS (3)

5. What skills/attributes and knowledge are needed for negotiators to achieve institutional goals?
6. How could this exercise be used in varying course settings? What could/should be modified?

NEXT STEPS

- What can we do to further stimulate and enable you to more thoroughly incorporate standards issues in your teaching/practice?
- How can we build and maintain a support community?
- Who else should we engage?
- What will YOU do next?

A Standards Teaching Website

www.northwestern.edu/standards-management

