



OPEN STANDARDS, IPR, AND INNOVATION

Carl Cargill

Chief Standards Officer

Sun Microsystems

Seminar on "Open Standards, IPR and



WHY THIS CONFERENCE?

- **The Three Revolutions Are Occurring:**
 - > **Open Standards – A Different Environment**
 - > **Standards and Intellectual Property Rights – A Changing Technical and Social Expectation**
 - > **Technology and Society – A Discontinuity is Occurring**
- **All three have been looked at individually**
 - > **This conference gives a chance to look at them all together**
 - > **Gathering of experts and leaders**
- **Examine Standardization as part of a System**

WHAT HAPPENED TO STANDARDS?

- **ISO, IEC, and the ITU came to power after WWII**
 - > ***Promote regrowth of “Industrial society”***
 - > ***Rebuild industrial Infrastructure (Steel, heavy manufacturing, construction)***
 - > ***Rules were deliberate, ponderous, & slow changing***
- ***That was 60 Years Ago***
- **ISO, IEC, and the ITU still have the same rules**
 - > ***The world has changed, however***
 - > ***The ICT arena is post-industrialist***
 - > ***Fast, interoperable, and system solution standards***

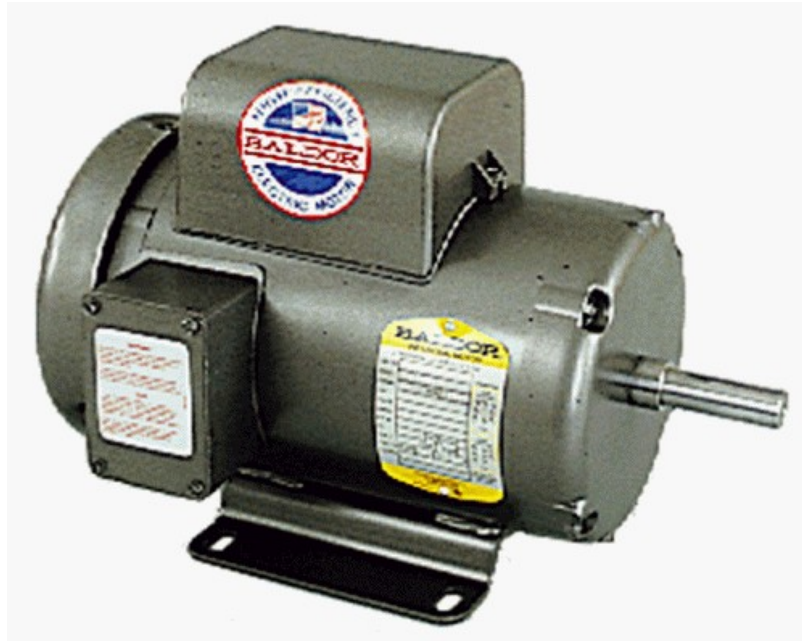
WHAT HAPPENED TO

- **ISO, IEC, and ITU use RAND terms for IPR**
 - > Worked well for steel producers and car makers
 - > Heavy investment of capital, slow return, limited players
 - > Works well when standards are an industrial tool
- **Current ICT standardization arena is troubled by RAND**
 - > Too many players, too many patents
 - > Doesn't seem to work well for a Web based world
 - > Little capital investment, fast return, unlimited players
 - > One person's RAND is another person's bankruptcy
 - > **No cross-SSO definition of IPR Policies**

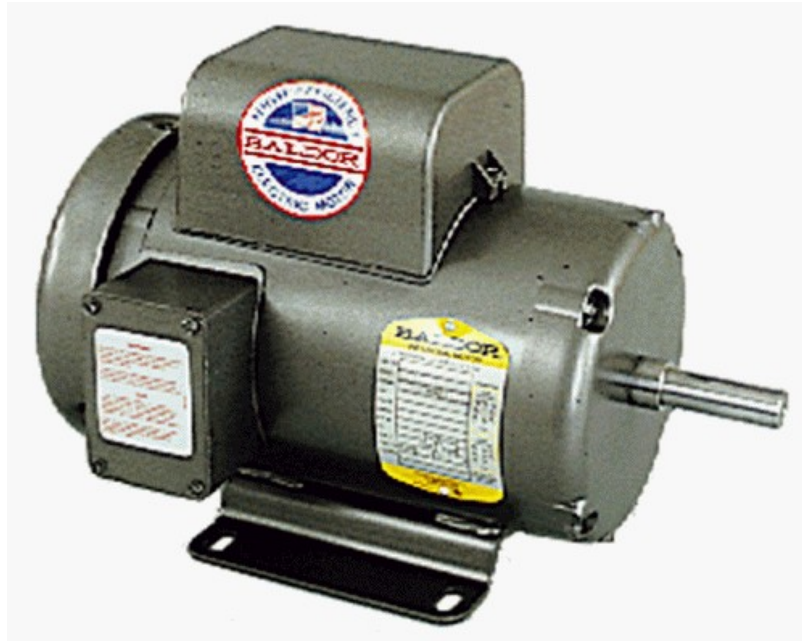
WHAT HAPPENED TO IPR?

- **Interface versus Implementation Standardization**
- **Interfaces (API's, Protocols, Schema)(Stability)**
 - > *The contract supported by the Implementation*
 - > **An abstraction of implementations**
- **Implementations (Code)(Innovation)**
 - > *The implementation of a function*
 - > **Does the work**
- **“Rough consensus, running code, dual competing implementations” (IETF Mantra)**

Implementations vs. Interfaces



Would you rather own a patent on...?



KEY TECHNICAL CONCEPT

- **Interface Standardization is the key to Innovation**
 - > **In the Web world, interfaces should be unencumbered**
 - > **If they are encumbered (IPR claimed), then the cost of using the technology in the interface must be known BEFORE the technology is standardized**
- **In many cases, acceptable and alternative technological solutions are available with less or no encumbrances**

KEY SOCIAL CONCEPT

- **Standards are a limited public good**
 - > They serve society, not just industry
 - > Intent is to make market more open for all
 - > Become a public sector issue if the private sector fails
- **Web has created an expectation of “open” interoperation**
 - > Increasing awareness of social liabilities from “encumbered standards”
 - > Governmental responses are beginning
- **Unclear future except that “things will be different”**

WHY THE CONCERN?

- **Standards are boring and not well understood**
 - > **Very little academic work**
 - > **Very few courses in colleges**
- **BUT – they provide the basis for Interoperation**
- **Interoperation is the basis for sharing – information, ideas, visions,**
 - > **Creates shared ideas, accelerates innovation**
 - > **Innovation then creates more innovation UNLESS there is an artificial check**

THE SOCIAL AND TECHNICAL DISCONTINUITY

- Sharing creates Communities...
 - ...Communities create Markets
 - > 3 Million people a day join the Web
- Millions of devices will be joining the Web
 - > “The Internet of Things”
 - > 1000 devices per person by 2010
- The Participation Age is here

Points for Consideration

- **How can or should a massively connected world work with efficiency and stability?**
- **The Internet of All Things either is or is not a network – there are no “maybe bits” allowed**
- **Business value is increasingly based on interoperability and inclusiveness**
- **We need to rethink business models, industrial policy, trade policies, innovation & creativity, in a systems context**

AND THAT IS WHY WE ARE
HAVNG THIS CONFERENCE –
TO DISCUSS THESE ISSUES
WHILE WE STILL HAVE SOME
TIME

Thanks

Carl Cargill
Carl.Cargill@sun.com