Wither the Revolution?
Wireless Networks for Cost Effective Broadband

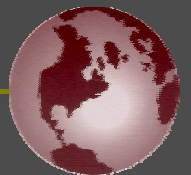Global Symposium for Regulators

Geneva, Switzerland

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Key to Connectivity

1. Low-cost technologies - especially terrestrial wireless

2. Supportive public policy

3. Micro and small enterprises

…. supporting the democratization of both *use* and *provision*….

How They Stack Up

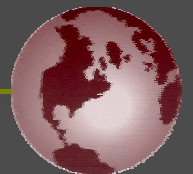|	802.11b	802.16	corDECT
Pt-to-pt max	20 Km	50 Km	
Pt-to-multipoint	1 Km	13 Km	25 Km
Bandwidth	11 Mbps shared	70 Mbps shared	70 Kbps exclus.
Unlicensed?	Yes	Yes	No
Advantages	Popular, cheap	Good range, speed	Cheap, proven in rural areas
Disadvantages	Short range, inefficient use of spectrum	Still emerging	Requires license

The Difference a Year Can Make

	802.11g	802.16	corDECT
Pt-to-pt max	20 Km	50 Km	
Pt-to-multipoint	1 Km	30 Km	35 Km
Bandwidth	54 Mbps (plus)	70 Mbps shared	100/200 Kbps
Unlicensed?	Yes	Yes	No
Advantages	Super popular, cheap	Good range, speed	Cheap, proven in rural areas
Disadvantages	Short range, inefficient use of spectrum	First generation shipping	Requires license

The SARI Village Information Centers

- Working in Madurai District, Tamil Nadu, South India

- Provide Internet via WLAN, PC, and application suite to villages - many that are off the phone grid

- 80 connections in over 50 villages

- Each village information center is locally owned and operated (franchise model)
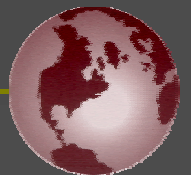
Connected Villages

- Padinetankudi
- Karungalakudi
- Keelavalavu
- Vellalur
- Urranganpatti
- Thaniamangalam
- Alagarkovil
- Neaythanpatti
- T.Ulagpitchanpatti
- Sengarampatti
- Othakadai
- Attapatti
- Kottampatti
- Chittampatti
- Pudhutamaraipatti
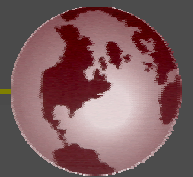- Pulimalaipatti
- Mankulam
- Karpuooravahini
- A.Vellalapatti

- Navinipatti
- Kelaiyur
- Kallampatti
- Arittapatti
- Narasingampatti
- Therkutheru
- Kottakudi
- T.Vellalapatti
- Thiruvadhavur
- Arasappanpatti
- Vellaripatti
- Andipattipudur
- Thumbaipatti
- Melur- Kalanjiyam Tr Centre
- Palayasukkampatti
- Kuthappanpatti
- Kidaripatti
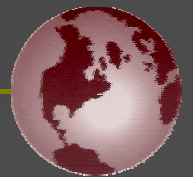- Kattayampatti
- Pullipatti

Immediate Impacts: Tele-agriculture
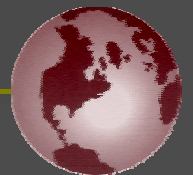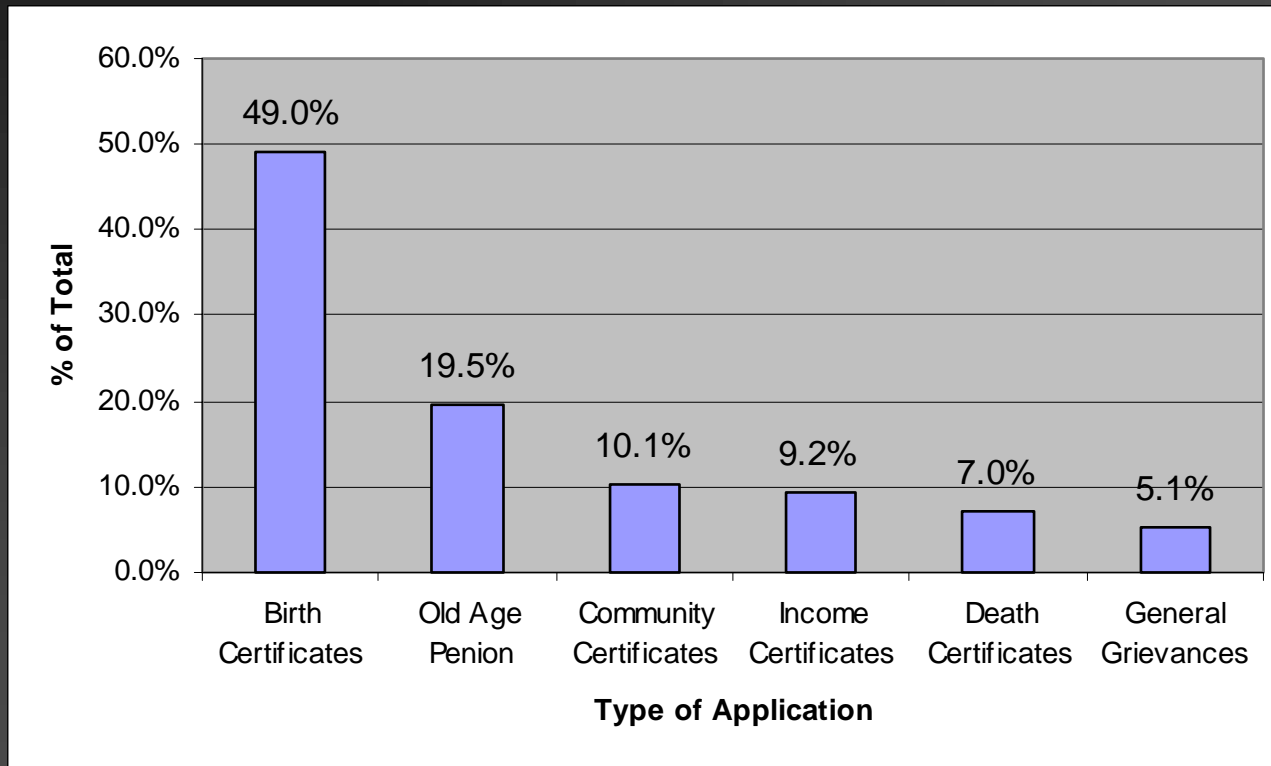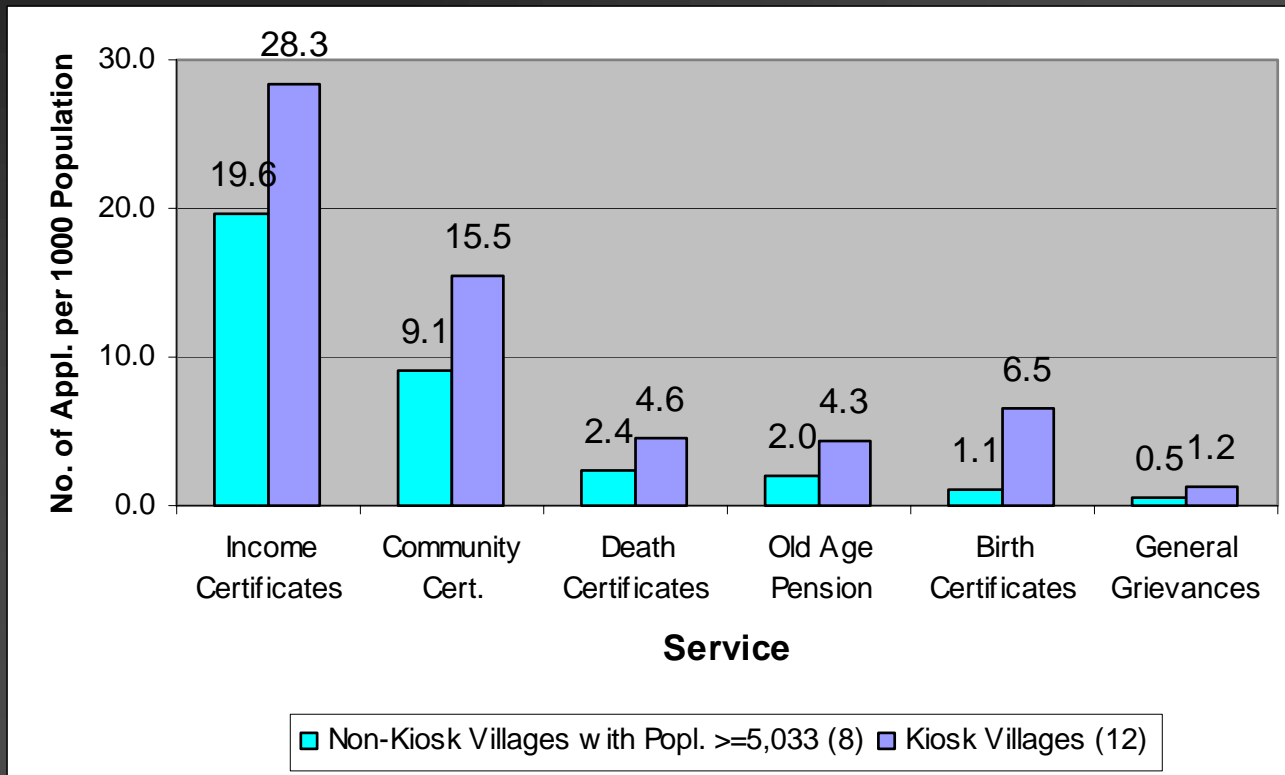
Immediate Impacts: Sometimes Just for Fun!
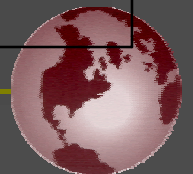
E-gov Types of Services

E-Government Services: Internet vs Non-Internet Villages
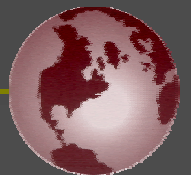
Consumer Welfare Results

Government Service	Cost and time estimate *without* e-government	Cost and time estimate *with* e-government	Savings in Cost and time with e-government
Birth Certificates	Rs. 60 to 250, 3-7 days	Rs. 35, 2-3 days	Rs. 25 to 215, 1-4 days
Death Certificates	Rs. 60 to 250, 3-7 days	Rs. 35, 2-3 days	Rs. 25 to 215, 1-4 days
Old Age Pensions	Rs. 25, one day in visiting the Taluk office	Rs. 10, No visit required	Rs. 15, one day

Political Liberties Model: The Punch Line

E-government services lead to an increase of 4.950 and 2.925 times the average number of applications received for birth certificates and old age pensions respectively, when compared to that when the village has no Internet kiosk, keeping other factors constant….

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