



Modernize Indian Railways using best in class technologies

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विकास का लक्ष्य, वहीं से शुरू और अद्वितीयता तक। Why settle for ordinary, when excellence is achievable.

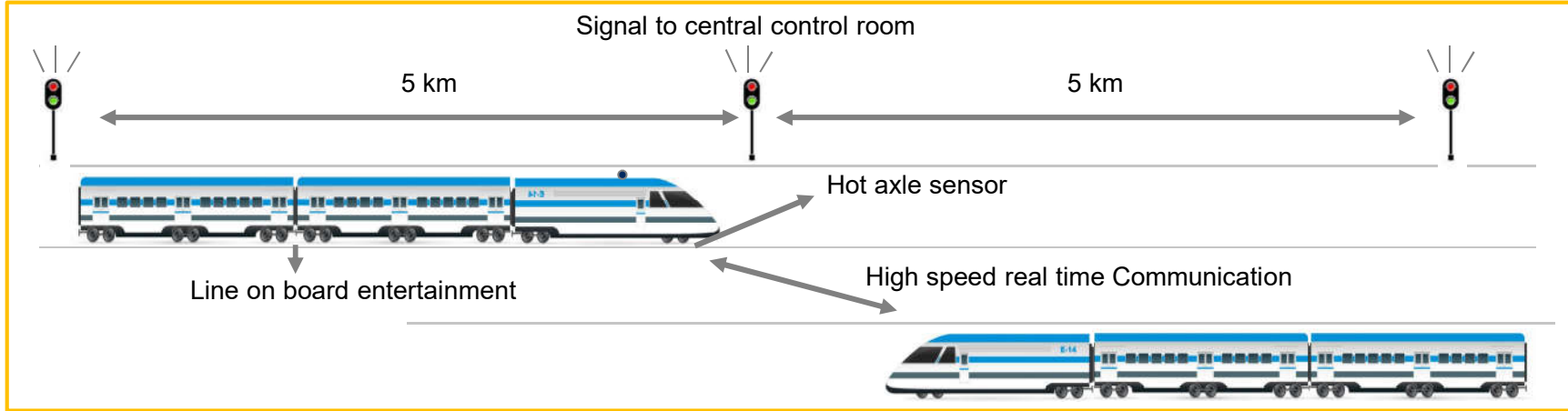
Technology holds the key for the future of Indian Railways

- **Increase speed of trains significantly**
- **Improve freight business**
- **Deliver world class customer experience**
- **Improve operational efficiency**
- **Achieve near zero fatalities**

5 radical technological interventions to redefine Indian Railways

- 1 Ultra high speed wireless corridor along IR's network
- 2 Pan-IR Enterprise Resource Planning (ERP)
- 3 Heavy haul and high speed trains
- 4 Next generation customised rolling stock
- 5 Network of display technologies to enhance passenger experience

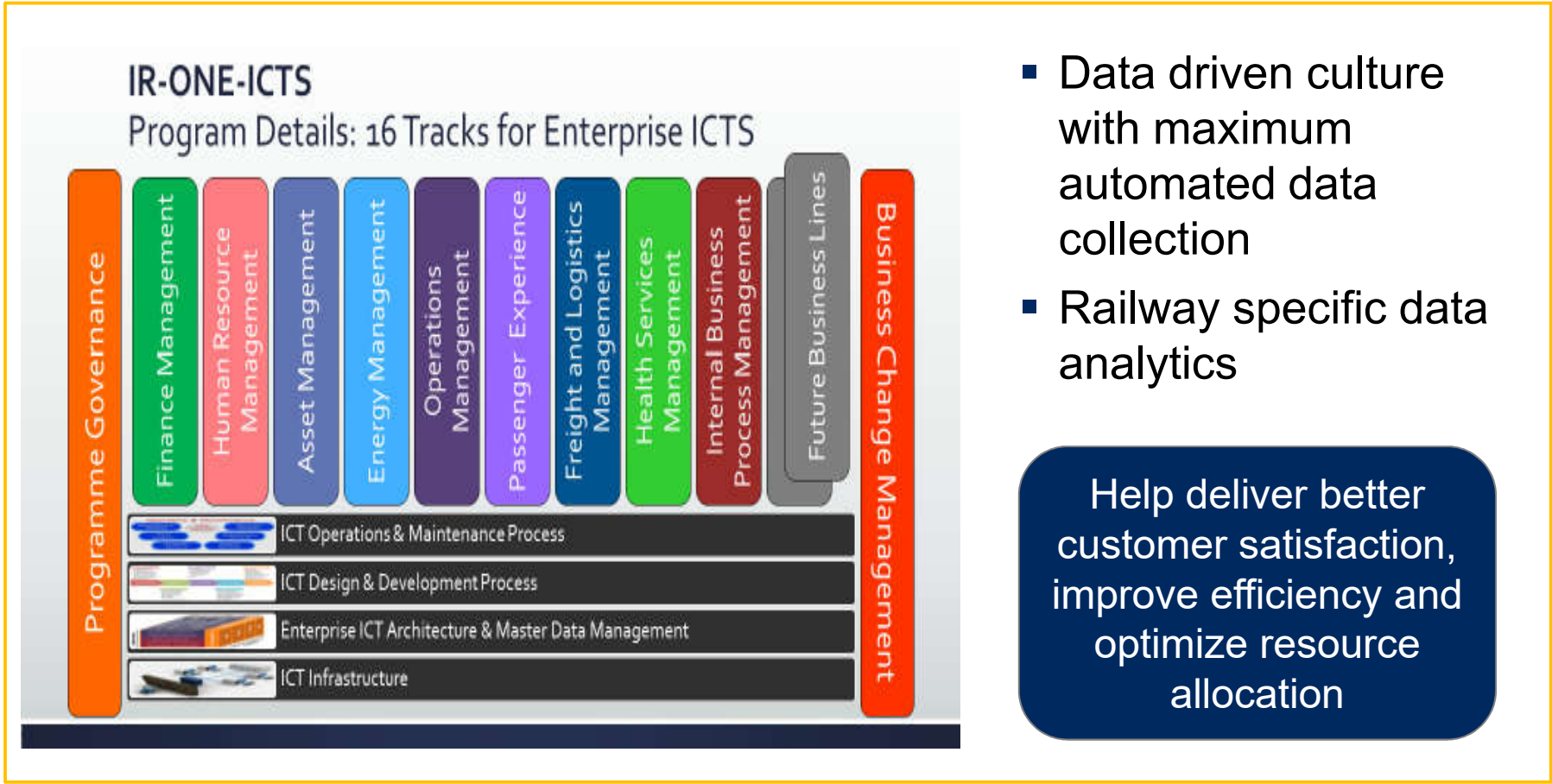
1 Ultra High Speed WiFi corridor



High speed wireless corridor will lead to :

- Moving block signaling – enabling real time communication between trains would lead to at least 200% improvement in throughput
- Significantly improve passenger experience by providing live content to passengers
- Ensure complete avoidance of collisions between trains
- Enable real time condition based monitoring of assets
- 4G Radio Access Network and high speed mobile corridor

2 Pan-IR Enterprise Resource Planning (ERP)



- Data driven culture with maximum automated data collection
- Railway specific data analytics

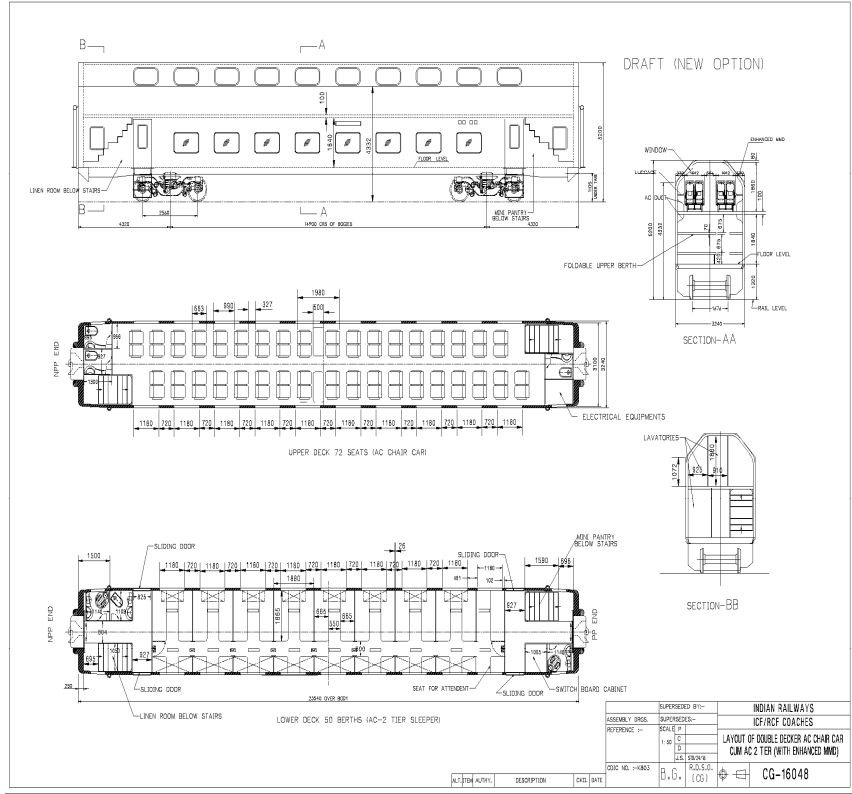
Help deliver better customer satisfaction, improve efficiency and optimize resource allocation

3 Heavy haul and high speed trains



- Heavy haul to help improve bulk freight business
- High Speed trains up to 350 kmph to reinvent passenger business – currently highest speed achieved by IR is 160 kmph

4 Next generation customised rolling stock



- Double stacked containers in electrified sections
- Redesigned double decker coaches based on passenger feedback
- Aluminium bodied rolling stock
- Special purpose wagons for target traffic

5 Network of display technologies to enhance passenger experience



- Significantly improve passenger experience by enabling a slew of services
- Communication with passengers at all time
- Ability to tailor advertising to raise advertising potential
- Better security due to 2,00,000 more cameras on platforms

Timeline

- | | | |
|---|---|-----------|
| 1 | Ultra high speed wireless corridor along IR's network | 3-5 years |
| 2 | Pan-IR Enterprise Resource Planning (ERP) | 2-3 years |
| 3 | Heavy haul and high speed trains | 7 years |
| 4 | Next generation customised rolling stock | 2-3 years |
| 5 | Network of display technologies to enhance passenger experience | 2-3 years |

Thank you